

Grippe Aviaire

Août 2007

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Characterization of H9N2 influenza A viruses isolated from chicken products imported into Japan from China

Titre : Characterization of H9N2 influenza A viruses isolated from chicken products imported into Japan from China

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Pays de publication : United Kingdom

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Résumé : We characterized eleven H9N2 influenza A viruses isolated from chicken products imported from China. Genetically they were classified into six distinct genotypes, including five already known genotypes and one novel genotype. This suggested that such multiple genotypes of the H9N2 virus have possibly already become widespread and endemic in China. Two isolates have amino-acid substitutions that confer resistance to amantadine in the M2 region, and this supported the evidence that this mutation might be a result of the wide application of amantadine for avian influenza treatment in China. These findings emphasize the importance of surveillance for avian influenza virus in this region, and of quarantining imported chicken products as potential sources for the introduction of influenza virus.

Code(s) de classement : 002A05

Descripteur(s) anglais

Descripteur(s) : Chicken; Japan; China; Microbiology; Epidemiology; Human; Influenza A

Desc. génériques : Microbiology; Biological sciences; Aves; Vertebrata; Asia; Poultry; Viral disease; Infection; Veterinary; Farming animal

Descripteur(s) français

Descripteur(s) : Poulet; Japon; Chine; Microbiologie; Epidemiologie; Homme; Grippe A

Desc. génériques : Microbiologie; Sciences biologiques; Aves; Vertebrata; Asie; Volaille; Virose; Infection; Veterinaire; Animal élevage

Localisation : INIST, Shelf number 6056, INIST No. 354000143539090030

Origine de la notice : INIST

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Real-time epidemic forecasting for pandemic influenza

Titre : Real-time epidemic forecasting for pandemic influenza

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Résumé : The ongoing worldwide spread of the H5N1 influenza virus in birds has increased concerns of a new human influenza pandemic and a number of surveillance initiatives are planned, or are in place, to monitor the impact of a pandemic in near real-time. Using epidemiological data collected during the early stages of an outbreak, we show how the timing of the maximum prevalence of the pandemic wave, along with its amplitude and duration, might be predicted by fitting a mass-action epidemic model to the surveillance data by standard regression analysis. This method is validated by applying the model to routine data collected in the United Kingdom during the different waves of the previous three pandemics. The success of the method in forecasting historical prevalence suggests that such outbreaks conform reasonably well to the theoretical model, a factor which may be exploited in a future pandemic to update ongoing planning and response.

Code(s) de classement : 002A05

Descripteur(s) anglais

Descripteur(s) : Real time; Epidemic; Microbiology; Epidemiology; Human; Influenza

Desc. génériques : Microbiology; Biological sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Temps reel; Epidemie; Microbiologie; Epidemiologie; Homme; Grippe

Desc. génériques : Microbiologie; Sciences biologiques; Virose; Infection

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The critically ill avian influenza A (H5N1) patient

Titre : The critically ill avian influenza A (H5N1) patient

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Résumé : Objective: This review examines perspectives of human infection with avian influenza A H5N1 (AI H5N1), specifically focusing on the presentation, diagnosis, and management of those critically ill with AI H5N1. Data Source: PubMed (1966-2006), PubMed "related articles," publications and Web sites of the World Health Organization and the Centers for Disease Control and Prevention, personal files, proceedings, and reference lists. Study Selection: We reviewed English-language publications pertaining to clinical presentation, diagnosis, and management of AI H5N1 and infection control expressly relating to the intensive care setting. Data Synthesis: The majority of reported patients with AI H5N1 are critically ill and require intensive care management. These patients progress rapidly to severe acute respiratory distress syndrome. Multiorgan failure occurs in a large proportion. Because of the nonspecific clinical, laboratory, and radiologic features, it is critical to seek a history of exposure to poultry or wild birds in suspected cases. Reverse transcription polymerase chain reaction performed on nasopharyngeal aspirate is the most reliable method for the laboratory diagnosis of AI H5N1. Treatment includes starting neuraminidase inhibitor oseltamivir as early as possible in addition to the standard supportive management. Aerosol generating procedures should be minimized to avoid nosocomial transmission. Strict infection control procedures are paramount to staff safety, although human-to-human transmission is rare as of this time. Conclusions: Many patients with AI H5N1 are critically ill either at presentation or shortly thereafter. Intensivists and intensive care units are therefore at the front line for this new cause of severe lung injury. Practitioners must be familiar with the nonspecific presentation of AI H5N1 and its diagnostic and therapeutic options. Although treating the infected patient with AI H5N1 is a priority, safeguarding healthcare workers and other patients must be considered of equal priority.

Code(s) de classement : 002B27B; 002B27C; 002B27B07

Descripteur(s) anglais

Descripteur(s) : Acute respiratory insufficiency; Viral disease; Resuscitation; Intensive care; Critically ill; Influenza A; Human; Intensive care unit; Avian influenza

Desc. génériques : Resuscitation; Intensive care medicine; Medical sciences; Medical sciences; Resuscitation; Intensive care medicine; Medical sciences; Infection

Descripteur(s) français

Descripteur(s) : Insuffisance respiratoire aigue; Virose; Reanimation; Soins intensifs; Malade etat grave; Grippe A; Homme; Unite soins intensifs; Grippe aviaire

Desc. génériques : Reanimation; Soins intensifs; Sciences medicales; Sciences medicales; Reanimation; Soins

intensifs; Sciences medicales; Infection

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Origine de la notice : INIST

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Simple triage scoring system predicting death and the need for critical care resources for use during epidemics

Titre : Simple triage scoring system predicting death and the need for critical care resources for use during epidemics

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Résumé : Objectives: In the event of pandemic influenza, the number of critically ill victims will likely overwhelm critical care capacity. To date, no standardized method for allocating scarce resources when the number of patients in need far exceeds capacity exists. We sought to derive and validate such a triage scheme. Design: Retrospective analysis of prospectively collected data. Setting: Emergency departments of two urban tertiary care hospitals. Patients: Three separate cohorts of emergency department patients with suspected infection, comprising a total of 5,133 patients. Interventions: None. Measurements: A triage decision rule for use in an epidemic was developed using only those vital signs and patient characteristics that were readily available at initial presentation to the emergency department. The triage schema was derived from a cohort at center 1, validated on a second cohort from center 1, and then validated on a third cohort of patients from center 2. The primary outcome for the analysis was in-hospital mortality. Secondary outcomes were intensive care unit admission and use of mechanical ventilation. Main Results: Multiple logistic regression demonstrated the following as independent predictors of death: a) age of >65 yrs, b) altered mental status, c) respiratory rate of >30 breaths/min, d) low oxygen saturation, and e) shock index of >1 (heart rate > blood pressure). This model had an area under the receiver operating characteristic curve of 0.80 in the derivation set and 0.74 and 0.76 in the validation sets. When converted to a simple rule assigning 1 point per covariate, the discrimination of the model remained essentially unchanged. The model was equally effective at predicting need for intensive care unit admission and mechanical ventilation. Conclusions: If, as expected, patient demand far exceeds the capability to provide critical care services in an epidemic, a fair and just system to allocate limited resources will be essential. The triage rule we have developed can serve as an initial guide for such a process.

Code(s) de classement : 002B27B; 002B27C; 002B27D01

Descripteur(s) anglais

Descripteur(s) : Resuscitation; Intensive care; Evaluation scale; Epidemic; Mechanical ventilation; Avian influenza

Desc. génériques : Resuscitation; Intensive care medicine; Medical sciences; Medical sciences; Transfusion; Medical sciences; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Réanimation; Soins intensifs; Echelle d'évaluation; Epidémie; Ventilation mécanique; Grippe aviaire

Desc. génériques : Réanimation; Soins intensifs; Sciences médicales; Sciences médicales; Transfusion; Sciences médicales; Infection; Virose

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Health and security in foreign policy. Health and foreign policy

Titre : Health and security in foreign policy. Health and foreign policy

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Type de document : Serial

Nombre de références : 7 ref.

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Health policy; Public health; Safety; Tropical medicine; Health; WHO

Desc. génériques : Public health; Medical sciences

Descripteur(s) français

Descripteur(s) : Politique sanitaire; Sante publique; Securite; Medecine tropicale; Sante; OMS; Politique etrangere

Desc. génériques : Sante publique; Sciences medicales

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Rapid diagnosis of H5N1 avian influenza virus infection by newly developed influenza H5 hemagglutinin gene-specific loop-mediated isothermal amplification method

Titre : Rapid diagnosis of H5N1 avian influenza virus infection by newly developed influenza H5 hemagglutinin gene-specific loop-mediated isothermal amplification method

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Source : Journal of virological methods. 2007; 141 (2) : 173-180

ISSN : 0166-0934

CODEN : JVMEDH

Date de publication : 2007

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Type de document : research-paper

Nombre de références : 3/4 p.

Résumé : Reverse transcriptase loop-mediated isothermal amplification (RT-LAMP) is a unique gene amplification method that can be completed within 35 min at 62.5 <degree>C. In the present study, RT-LAMP was used to develop a rapid and sensitive laboratory diagnostic system for the H5N1 highly pathogenic avian influenza (HPAI). The sensitivity of the system was 0.1-0.01 plaque-forming units per reaction for HPAI-H5N1 viruses belonging to the genetically and antigenically distinct clade 1, represented by A/Vietnam/JP1203/2004, and clade 2, represented by A/Indonesia/JP283/2006. This RT-LAMP sensitivity is 10-fold higher than the sensitivity of standard one-step RT-PCR. By using viral RNAs extracted from avian influenza viruses of H1-H15 hemagglutinin (HA) subtypes and human pathogenic respiratory viruses, it was confirmed that the RT-LAMP system amplifies specifically RNA of the H5 subtype virus. The system detected H5-HA genes in throat swabs collected from humans as well as from wild birds. These results suggest that the present RT-LAMP system is a useful diagnostic tool for surveillance of recent outbreaks of the HPAI-H5N1 virus.

Code(s) de classement : 002A05C09

Descripteur(s) anglais

Descripteur(s) : Avian influenza virus; Diagnosis; Hemagglutinin; Gene amplification; Method; Pathogenicity; Reverse transcription polymerase chain reaction; Microbiology; Virology; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Diagnostic; Hemagglutinine; Amplification génique; Méthode; Pouvoir pathogène; Réaction chaîne polymérase RT; Microbiologie; Virologie; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number 18295, INIST No. 354000147096620080

Origine de la notice : INIST

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Antiviral properties of deazaadenine nucleoside derivatives

Titre : Antiviral properties of deazaadenine nucleoside derivatives

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Source : Current medicinal chemistry. 2006; 13 (29) : 3529-3552

ISSN : 0929-8673

Date de publication : 2006

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 100 ref.

Résumé : Viral infections have menaced human beings since time immemorial, and even today new viral strains that cause lethal diseases are being discovered with alarming frequency. One major example is HIV, the etiological agent of AIDS, which spread up in the last two decades. Very recently, other virus based diseases such as avian flu have spread fear around the world, and hemorrhagic fevers from central Africa seriously threaten human health because of their very deadly effects. New antiviral agents are still greatly needed to counter these menaces. Many scientists are involved in this field of research, and many of the recently discovered effective antiviral compounds are nucleoside analogues. Among those derivatives, deazapurine nucleoside analogues have demonstrated potent inhibitory effect of viral replication. This review reports on recently generated data from preparing and testing deazapurine nucleoside derivatives as inhibitors in virus replication systems. Although most of the reported data have been produced in antiHIV, antiHCMV, and antiHSV biological testing, very recently other new important fields of application have been discovered, all in topical subjects of strong interest. In fact, deazapurine nucleosides have been found to be active as chemotherapeutics for some veterinary systemic viral infections, for which no antiviral drugs are licensed yet. Furthermore, they demonstrated efficacy in the inhibition of Hepatitis C virus replication. Finally, these compounds showed high potency as virucides against Ebola Virus, curing Ebola infected mice with a single dose administration.

Code(s) de classement : 002B02S05

Descripteur(s) anglais

Descripteur(s) : Antiviral; Nucleoside; Infection; Structure activity relation; Chemotherapy; Ebola virus; Hepatitis C virus; Review; Hepatitis B virus; Human immunodeficiency virus; Human cytomegalovirus; Herpesvirus hominis; Benzimidazole derivatives; Indole derivatives; Animal; Imidazopyridine derivatives

Desc. génériques : Virology; Infectious diseases; Pharmacology; Medical sciences; Filovirus; Filoviridae; Mononegavirales; Virus; Hepacivirus; Flaviviridae; Orthohepadnavirus; Hepadnaviridae; Lentivirus; Retroviridae; Betaherpesvirinae; Herpesviridae; Alphaherpesvirinae; Digestive diseases; Hepatic disease

Descripteur(s) français

Descripteur(s) : Antiviral; Nucleoside; Infection; Relation structure activite; Chimiotherapie; Virus Ebola; Virus hepatite C; Article synthese; Virus hepatite B; Virus immunodeficiency humaine; Cytomegalovirus humain; Herpesvirus hominis; Benzimidazole derive; Indole derive; Animal; Imidazopyridine derive; Imidazo4,5 bpyridine derive; Imidazo4,5 cpyridine derive; Pyrrolo2,3 dpyrimidine derive; Pyrrolopyrimidine

Desc. génériques : Virologie; Maladies infectieuses; Pharmacologie; Sciences medicales; Filovirus; Filoviridae; Mononegavirales; Virus; Hepacivirus; Flaviviridae; Orthohepadnavirus; Hepadnaviridae; Lentivirus; Retroviridae; Betaherpesvirinae; Herpesviridae; Alphaherpesvirinae; Appareil digestif pathologie; Foie pathologie

Localisation : INIST, Shelf number 22999, INIST No. 354000159007990040

Origine de la notice : INIST

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Analyse : les défis posés par les maladies infectieuses émergentes

Titre : Analyse : les défis posés par les maladies infectieuses émergentes

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Source : LA NOTE DE VEILLE. 2007-01-22; (42) : 1-4

Date de publication : 2007

Pays de publication : France

Langue(s) : French

Type de document : Serial

Nombre de références : 15 ref.

Résumé : La succession de crises qu' a connues la France depuis vingt-cinq ans a conduit a une reorganisation en profondeur de la politique de securite sanitaire qui n' est pas encore achevee. Si un ensemble d' agences publiques de produits, dotees d' effectifs et de budgets propres, a ete constitue, l' emergence d' une veille et d' une surveillance sanitaires coherente est plus lente, voire laborieuse. Les crises sanitaires de ce debut de vingt-et-unieme siecle, en particulier celles liees aux maladies infectieuses emergentes, montrent que cet edifice reste a consolider. Qu' appelle-t-on un risque infectieux emergent ? Cette notion recouvre des processus disparates : apparition de nouveaux agents infectieux, resurgence de maladies qu' on croyait vaincues, diffusion d' agents pathogenes a une echelle plus large, signes clairs ou suspicion d' augmentation de l' incidence de certaines maladies, etc. Ces phenomenes ont souvent partie liee avec les evolutions de l' interface homme-environnement ou encore avec les nouveaux modes de consommation, de production et de deplacement. Ils sollicitent desormais en permanence les dispositifs d' alerte et de veille sanitaires et les capacites d' expertise, tant aux niveaux national qu' international. Les episodes recents (SRAS, bioterrorisme, grippe aviaire, chikungunya) ont accelere les efforts de structuration de la reponse publique aux crises et l' integration du systeme francais aux reseaux organises a l' echelle internationale. (Intro.)

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Epidemiology; Sanitary surveillance; Infection; Organization; France; Emerging disease

Desc. génériques : Public health; Medical sciences; Europe

Descripteur(s) français

Descripteur(s) : Epidemiologie; Surveillance sanitaire; Infection; Organisation; France; Maladie emergente

Desc. génériques : Sante publique; Sciences medicales; Europe

Localisation : BDSP/ORSLR, Shelf number COLLECTION

Origine de la notice : BDSP

Molecular mechanisms of pathogenicity : how do pathogenic microorganisms develop cross-kingdom host jumps?

Titre : Molecular mechanisms of pathogenicity : how do pathogenic microorganisms develop cross-kingdom host jumps?

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Source : FEMS microbiology reviews. 2007; 31 (3) : 239-277

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Date de publication : 2007

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 11 p.1/4

Résumé : It is common knowledge that pathogenic viruses can change hosts, with avian influenza, the HIV, and the causal agent of variant Creutzfeldt-Jacob encephalitis as well-known examples. Less well known, however, is that host jumps also occur with more complex pathogenic microorganisms such as bacteria and fungi. In extreme cases, these host jumps even cross kingdom of life barriers. A number of requirements need to be met to enable a microorganism to cross such kingdom barriers. Potential cross-kingdom pathogenic microorganisms must be able to come into close and frequent contact with potential hosts, and must be able to overcome or evade host defences. Reproduction on, in, or near the new host will ensure the transmission or release of successful genotypes. An unexpectedly high number of cross-kingdom host shifts of bacterial and fungal pathogens are described in the literature. Interestingly, the molecular mechanisms underlying these shifts show commonalities. The evolution of pathogenicity towards novel hosts may be based on traits that were originally developed to ensure survival in the microorganism's original habitat, including former hosts.

Code(s) de classement : 002A05C10; 002A05B15; 002A05D10

Descripteur(s) anglais

Descripteur(s) : Avian influenzavirus; Human immunodeficiency virus; Bacteria; Fungi; Mechanism; Pathogenicity; Microorganism; Transmission; Release; Genotype; Adaptation; Review; Encephalitis; Bacteriosis

Desc. génériques : Virology; Microbiology; Biological sciences; Bacteriology; Microbiology; Biological sciences; Mycology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Lentivirus; Retroviridae; Thallophyta; Cerebral disorder; Infection; Central nervous system disease; Nervous system diseases

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Virus immunodéficience humaine; Bactérie; Fungi; Mécanisme; Pouvoir pathogène; Microorganisme; Transmission; Libération; Genotype; Adaptation; Article synthèse; Encephalite; Bactériose

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Bactériologie; Microbiologie; Sciences biologiques; Mycologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Lentivirus; Retroviridae; Thallophyta; Encephale pathologie; Infection; Systeme nerveux central pathologie; Systeme nerveux pathologie

Localisation : INIST, Shelf number 17567D, INIST No. 354000147123770010

Origine de la notice : INIST

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Le virus de la grippe aviaire sera-t-il humain? : Maladies infectieuses; Will avian influenza virus become a human virus ?

Titre : Le virus de la grippe aviaire sera-t-il humain? : Maladies infectieuses; Will avian influenza virus become a human virus ?

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Source : Revue medicale suisse. 2007; 3 (106) : 918-923

ISSN : 1660-9379

Date de publication : 2007

Pays de publication : Switzerland

Langue(s) : French

Langue(s) du résumé : English

Type de document : Serial

Nombre de références : 7 ref.

Résumé : Depuis 1997 apparait regulierement chez l' homme un virus Influenza d' origine aviaire a l' origine d' infections respiratoires severes conduisant a un deces dans 50% des cas. Le virus Influenza A (H5N1) a l' origine de cette maladie circule tant chez les oiseaux sauvages que domestiques. Des millions de volailles ont regulierement ete infectees ou abattues par mesure de precaution sur trois continents : Asie, Afrique et Europe. Le virus H5N1, comme les virus Influenza en general, a la capacite d' adapter son genome tres facilement et rapidement. Grace a cette propriete, il pourrait passer directement du monde aviaire aux humains. Le present article resume et discute nos connaissances permettant d' evaluer le risque d' une nouvelle pandémie.

Code(s) de classement : 002B02; 002B01

Descripteur(s) anglais

Descripteur(s) : Influenza A virus; Human; Avian influenza

Desc. génériques : Pharmacology; Medical sciences; Medical sciences; Influenzavirus A; Orthomyxoviridae; Virus; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Virus grippal A; Homme; Grippe aviaire

Desc. génériques : Pharmacologie; Sciences medicales; Sciences medicales; Influenzavirus A; Orthomyxoviridae; Virus; Infection; Virose

Localisation : INIST, Shelf number 27566, INIST No. 354000147116840020

Origine de la notice : INIST

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Pandemie de grippe : quel role pour les medecins de premier recours? : Maladies infectieuses; What role for primary care physicians in case of influenza pandemic?

Titre : Pandemie de grippe : quel role pour les medecins de premier recours? : Maladies infectieuses; What role for primary care physicians in case of influenza pandemic?

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Source : Revue medicale suisse. 2007; 3 (106) : 910-914

ISSN : 1660-9379

Date de publication : 2007

Pays de publication : Switzerland

Langue(s) : French

Langue(s) du résumé : English

Type de document : Serial

Nombre de références : 7 ref.

Résumé : La survenue d'une pandémie de grippe semble, a terme, un événement inéluctable. La grippe aviaire causée par le virus Influenza A H5N1 est actuellement la situation qui risque le plus de dégénérer en pandémie. Sa dissémination stimule donc d'importants efforts de planification. L'implication des médecins de premier recours en cas de pandémie grippale est essentielle tant en raison de l'ampleur présumée de l'enjeu que de la compétence de ces médecins à y répondre. Le but de cet article est d'illustrer quel serait leur rôle dans cette situation, et de présenter les deux principales options envisagées pour organiser leur travail : l'intégration des praticiens dans un système ambulatoire dédié, spécifiquement organisé pour la pandémie grippale, ou leur contribution dans les cabinets médicaux existants moyennant des adaptations.

Code(s) de classement : 002B02; 002B01

Descripteur(s) anglais

Descripteur(s) : Influenza; Physician; Primary health care; Health staff; Pandemic

Desc. génériques : Pharmacology; Medical sciences; Medical sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Grippe; Medecin; Soins santé primaire; Personnel sanitaire; Pandémie

Desc. génériques : Pharmacologie; Sciences médicales; Sciences médicales; Virose; Infection

Localisation : INIST, Shelf number 27566, INIST No. 354000147116840010

Origine de la notice : INIST

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Efficacy of oseltamivir therapy in ferrets inoculated with different clades of H5N1 influenza virus

Titre : Efficacy of oseltamivir therapy in ferrets inoculated with different clades of H5N1 influenza virus

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Source : Antimicrobial agents and chemotherapy. 2007; 51 (4) : 1414-1424

ISSN : 0066-4804

CODEN : AACHAX

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 50 ref.

Résumé : Highly pathogenic H5N1 influenza viruses have infected an increasing number of humans in Asia, with high mortality rates and the emergence of multiple distinguishable clades. It is not known whether antiviral drugs that are effective against contemporary human influenza viruses will be effective against systemically replicating viruses, such as these pathogens. Therefore, we evaluated the use of the neuraminidase (NA) inhibitor oseltamivir for early postexposure prophylaxis and for treatment in ferrets exposed to representatives of two clades of H5N1 virus with markedly different pathogenicities in ferrets. Ferrets were protected from lethal infection with the A/Vietnam/1203/04 (H5N1) virus by oseltamivir (5 mg/kg of body weight/day) given 4 h after virus inoculation, but higher daily doses (25 mg/kg) were required for treatment when it was initiated 24 h after virus inoculation. For the treatment of ferrets inoculated with the less pathogenic A/Turkey/15/06 (H5N1) virus, 10 mg/kg/day of oseltamivir was sufficient to reduce the lethargy of the animals, significantly inhibit inflammation in the upper respiratory tract, and block virus spread to the internal organs. Importantly, all ferrets that survived the initial infection were rechallenged with homologous virus after 21 days and were completely protected from infection. Direct sequencing of the NA or HA1 gene segments in viruses isolated from ferret after treatment showed no amino acid substitutions known to cause drug resistance in conserved residues. Thus, early oseltamivir treatment is crucial for protection against highly pathogenic H5N1 viruses and the higher dose may be needed for the treatment of more virulent viruses.

Code(s) de classement : 002B02S; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Treatment efficiency; Oseltamivir; Treatment; Ferret; Antiviral; Influenzavirus AH5N1; Avian influenza

Desc. génériques : Infectious diseases; Pharmacology; Medical sciences; Virology; Infectious diseases; Medical sciences; Fissipedia; Carnivora; Mammalia; Vertebrata; Exo <alpha> sialidase; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Enzyme inhibitor; Neuraminidase inhibitor; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Efficacité traitement; Oseltamivir; Traitement; Furet; Antiviral; Influenzavirus AH5N1; Grippe aviaire

Desc. génériques : Maladies infectieuses; Pharmacologie; Sciences médicales; Virologie; Maladies infectieuses; Sciences médicales; Fissipedia; Carnivora; Mammalia; Vertebrata; Exo <alpha> sialidase; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Inhibiteur enzyme; Inhibiteur neuraminidase; Infection; Virose

Localisation : INIST, Shelf number 13334, INIST No. 354000143257250410

Origine de la notice : INIST

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Le retour des maladies animales; Animal diseases are back

Titre : Le retour des maladies animales; Animal diseases are back

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Source : Recherche Paris 1970. 2007; (406; SUP) : 16-17

ISSN : 0029-5671

CODEN : RCCHBV

Date de publication : 2007

Pays de publication : France

Langue(s) : French

Type de document : Serial

Résumé : Persistance de la fièvre de la Vallée du Rift, essor de la grippe aviaire ou extension de la bluetongue ... les maladies animales persistent et nécessitent une démarche innovante alliant notamment la biotechnologie et l'écologie

Code(s) de classement : 002A36C03; 002B05C03; 235

Descripteur(s) anglais

Descripteur(s) : Farming animal; Wild animal; Disease; Infection; Zoonosis; Epizootics; Sanitary control; Sensitivity resistance; Diagnosis; Treatment; Scientific research; Applied research; Research and development; Fundamental research; Innovation; Biotechnology; Ecology; Blue tongue disease; Rift valley fever; Ruminant animal; Bovine; Aves; Tropical zone; Avian influenza virus; Bluetongue virus; Rift valley fever virus; Disease resistance; Avian influenza

Desc. génériques : Terrestrial vertebrates zootechny; Agriculture; Animal production; Biological sciences; Virology; Infectious diseases; Medical sciences; Viral disease; Arbovirus disease; Artiodactyla; Ungulata; Mammalia; Vertebrata; Influenzavirus A; Orthomyxoviridae; Virus; Orbivirus; Reoviridae; Sandfly fever group virus; Phlebovirus; Bunyaviridae; Veterinary medicine; Epidemiology; Tropical medicine; Zoonosis; Pathogenic; RNA virus; Herbivorous

Descripteur(s) français

Descripteur(s) : Animal élevage; Animal sauvage; Maladie; Infection; Zoonose; Epizootie; Lutte sanitaire; Sensibilité résistance; Diagnostic; Traitement; Recherche scientifique; Recherche appliquée; Recherche développement; Recherche fondamentale; Innovation; Biotechnologie; Ecologie; Fièvre catarrhale ovine; Fièvre vallée Rift; Animal ruminant; Bovin; Aves; Zone tropicale; Influenzavirus aviaire; Virus fièvre catarrhale ovine; Virus fièvre vallée Rift; Résistance aux maladies; Grippe aviaire

Desc. génériques : Zootechnie des vertèbres terrestres; Agriculture; Production animale; Sciences biologiques; Virologie; Maladies infectieuses; Sciences médicales; Virose; Arbovirose; Artiodactyla; Ungulata; Mammalia; Vertebrata; Influenzavirus A; Orthomyxoviridae; Virus; Orbivirus; Reoviridae; Virus groupe fièvre à phlébotome; Phlebovirus; Bunyaviridae; Médecine vétérinaire; Épidémiologie; Médecine tropicale; Zoonose; Pathogène; Virus à ARN; Herbivore

Localisation : INIST, Shelf number 6273, INIST No. 354000143283070070

Origine de la notice : INIST

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Differential onset of apoptosis in influenza A virus H5N1-and H1 N1-infected human blood macrophages

Titre : Differential onset of apoptosis in influenza A virus H5N1-and H1 N1-infected human blood macrophages

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Source : Journal of general virology. 2007; 88 (p. 4) : 1275-1280

ISSN : 0022-1317

CODEN : JGVIAY

Date de publication : 2007

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Type de document : short-communication

Nombre de références : 3/4 p.

Résumé : Pathogenesis of the highly pathogenic avian influenza virus A/Hong Kong/483/97 (H5N1/97) remains to be investigated. It was demonstrated recently that H5N1 dysregulation of proinflammatory cytokines in human macrophages is a p38-kinase-dependent process. The results indicated that macrophages may play a role in disease severity. To investigate cellular responses to H5N1 infection further, apoptosis and its related pathways were studied in primary blood macrophages. Here, it is shown that the H5N1/97 virus triggered apoptosis, including caspases and PARP activation, in infected macrophages with a delayed onset compared with H1N1 counterparts. Similar results were also found in human macrophages infected by precursors of the H5N1/97 virus. Thus, these results showed that the delay in apoptosis onset in macrophages infected by H5N1/97 and its related precursor subtypes may be a means for the pathogens to have longer survival in the cells; this may contribute to the pathogenesis of H5N1 disease in humans.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Influenza A virus; Human; Apoptosis; Cell death; Blood; Macrophage; Microbiology; Virology; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Virus grippal A; Homme; Apoptose; Mort cellulaire; Sang; Macrophage; Microbiologie; Virologie; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Virose; Infection

Localisation : INIST, Shelf number 13533, INIST No. 354000145708090230

Origine de la notice : INIST

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Cooperation bibliogram of bird flu. International Workshop on Webometrics, Informetrics and Scientometrics & seventh COLLNET meeting : 10-12 May 2006, Nancy

Titre : Cooperation bibliogram of bird flu. International Workshop on Webometrics, Informetrics and Scientometrics & seventh COLLNET meeting : 10-12 May 2006, Nancy

Auteur(s) : STEGMANN Johannes; GROHMANN Guenter

Auteur(s) : Institut de l'information scientifique et technique, Vandoeuvre les Nancy, France, org cong.; Laboratoire lorrain de recherche en informatique et ses applications, France, org cong.

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Source : 2006; 27 35

Informations congrès : International Workshop on Webometrics, Informetrics and Scientometrics, Nancy France, 2006; COLLNET meeting, 7, Nancy France, 2006

Éditeur : SRDI INIST CNRS, Vandoeuvre les Nancy

Date de publication : 2006

Pays de publication : France

Langue(s) : English

Type de document : Conference-Meeting

Nombre de références : 12 ref.

Résumé : The published literature on Bird Flu, now a pandemic animal disease with a possible potential of evolving into a devastating human disease, was analysed primarily with respect of national and international cooperations and networks of authors and countries. The output of research-relevant papers is now around 150 per year and was less than 100 papers per year before 2003. The field is highly cooperative; nearly 90% of the articles have two or more authors. National extramural cooperation is around 50% since 1998, intramural cooperation shows a decreasing tendency and is now about 20%. Between 20% and 30% of the papers have been published in bi- or multinational cooperation. Observed and expected citation rates of international papers are twice as high as the citation rates of national papers. 47 countries are engaged in Bird Flu research, on top USA, followed by PEOPLES R CHINA, UK and JAPAN. These countries are also centers of country networks, but minor centers exist. An Asian local network with strong ties consisting of countries most affected by Bird Flu can be identified.. No strong direct connections exist between Europe and Asia; thus it seems necessary to intensify international cooperation. Author network show interesting cluster structures which must be studied in detail.

Code(s) de classement : 001A01A02; 205

Descripteur(s) anglais

Descripteur(s) : Scientific research; Avian influenza virus; Published document; Author productivity; Scientific cooperation; International cooperation; Bibliometric analysis; Information mapping

Desc. génériques : Information sciences; Documentation; Influenza virus A; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Recherche scientifique; Influenza virus aviaire; Document publié; Productivité auteur; Coopération scientifique; Coopération internationale; Analyse bibliométrique; Cartographie information

Desc. génériques : Sciences de l'information; Documentation; Influenza virus A; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number Y 39042, INIST No. 354000153554570030

Origine de la notice : INIST

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Les oiseaux malades de la peste

Titre : Les oiseaux malades de la peste

Auteur(s) : BLANCOU Jean

Affiliation(s) : Academie veterinaire de France, France

Source : Recherche Paris 1970. 2007; (405) : 46-49

ISSN : 0029-5671

CODEN : RCCHBV

Date de publication : 2007

Pays de publication : France

Langue(s) : French

Type de document : Serial

Code(s) de classement : 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Aves; Human; Patient; Rearing; History; Veterinary medicine; Avian influenza

Desc. génériques : Virology; Infectious diseases; Medical sciences; Vertebrata; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Aves; Homme; Malade; Elevage; Histoire; Medecine veterinaire; Pandemie; Panzootie; Grippe aviaire

Desc. génériques : Virologie; Maladies infectieuses; Sciences medicales; Vertebrata; Infection; Virose

Localisation : INIST, Shelf number 6273, INIST No. 354000159540850030

Origine de la notice : INIST

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Antiviral therapy and prophylaxis for influenza in children

Titre : Antiviral therapy and prophylaxis for influenza in children

Auteur(s) : Committee on Infectious Diseases, United States

Source : Pediatrics Evanston. 2007; 119 (4) : 852-860

ISSN : 0031-4005

CODEN : PEDIAU

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 61 ref.

Résumé : Antiviral agents are available that are safe and effective for the treatment and prophylaxis of influenza virus infections in children. The neuraminidase inhibitors (oseltamivir [Tamiflu] and zanamivir [Relenza]) are preferred agents because of current widespread resistance to the adamantanes (amantadine [Symmetrel] and rimantadine [Flumadine]). Therapy should be provided to children with influenza infection who are at high risk of severe infection and to children with moderate-to-severe influenza infection who may benefit from a decrease in the duration of symptoms. Prophylaxis should be provided (1) to high-risk children who have not yet received immunization and during the 2 weeks after immunization, (2) to unimmunized family members and health care professionals with close contact with high-risk unimmunized children or infants who are younger than 6 months, and (3) for control of influenza outbreaks in unimmunized staff and children in an institutional setting. Testing of current H5N1 avian influenza virus isolates, the potential agents of pandemic influenza, suggests susceptibility to oseltamivir and zanamivir. Because no prospective data exist on the efficacy of these agents in humans for H5N1 strains, the dosage and duration of therapy in adults and children may differ from those documented to be effective for epidemic influenza strains.

Code(s) de classement : 002B01; 002B30A03; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Oseltamivir; Antiviral; Treatment; Zanamivir; Therapy; Prevention; Rimantadine; Influenza; Child; Ribavirin; Pediatrics; Antiparkinson agent

Desc. génériques : Medical sciences; Public health; Medical sciences; Virology; Infectious diseases; Medical sciences; Viral disease; Infection; Human; Amantadine derivatives; Exo <alpha> sialidase; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Enzyme inhibitor; Neuraminidase inhibitor; Agonist; Antagonist; Dopamine receptor; Glutamate receptor; NMDA receptor; Dopamine agonist; Nucleoside analog

Descripteur(s) français

Descripteur(s) : Oseltamivir; Antiviral; Traitement; Zanamivir; Therapie; Prevention; Rimantadine; Grippe; Enfant; Ribavirine; Pédiatrie; Antiparkinsonien

Desc. génériques : Sciences médicales; Santé publique; Sciences médicales; Virologie; Maladies infectieuses; Sciences médicales; Virose; Infection; Homme; Amantadine dérivé; Exo <alpha> sialidase; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Inhibiteur enzyme; Inhibiteur neuraminidase; Agoniste; Antagoniste; Récepteur dopaminergique; Récepteur glutamate; Récepteur NMDA; Stimulant dopaminergique; Analogue nucléoside; Inhibiteur de l'inosine monophosphate deshydrogénase

Localisation : INIST, Shelf number 6967, INIST No. 354000145722500270

Origine de la notice : INIST

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The 1918 influenza pandemic : Insights for the 21st century

Titre : The 1918 influenza pandemic : Insights for the 21st century

Auteur(s) : MORENS David M; FAUCI Anthony S

Affiliation(s) : National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Maryland, United States

Source : The Journal of infectious diseases. 2007; 195 (7) : 1018-1028

ISSN : 0022-1899

CODEN : JIDIAQ

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 101 ref.

Résumé : The 1918-1919 H1N1 influenza pandemic was among the most deadly events in recorded human history, killing an estimated 50-100 million persons. Because recent H5N1 avian epizootics have been associated with sporadic human fatalities, concern has been raised that a new pandemic, as fatal as the pandemic of 1918, or more so, could be developing. Understanding the events and experiences of 1918 is thus of great importance. However, despite the genetic sequencing of the entire genome of the 1918 virus, many questions about the 1918 pandemic remain. In this review we address several of these questions, concerning pandemic-virus origin, unusual epidemiologic features, and the causes and demographic patterns of fatality. That none of these questions can yet be fully answered points to the need for continued pandemic vigilance, basic and applied research, and pandemic preparedness planning that emphasizes prevention, containment, and treatment with antiviral medications and hospital-based intensive care.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Microbiology; Infection; Influenza

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences; Viral disease

Descripteur(s) français

Descripteur(s) : Microbiologie; Infection; Grippe

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales; Virose

Localisation : INIST, Shelf number 2052, INIST No. 354000147160140130

Origine de la notice : INIST

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The utility of ISCOMATRIX<<sup>T<sup>M> adjuvant for dose reduction of antigen for vaccines requiring antibody responses

Titre : The utility of ISCOMATRIX<<sup>T<sup>M> adjuvant for dose reduction of antigen for vaccines requiring antibody responses

Auteur(s) : BOYLE Jeff; EASTMAN Donna; MILLAR Christine; CAMUGLIA Sarina; COX John; PEARSE Martin; GOOD Jeremy; DRANE Debbie

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Source : Vaccine . 2007; 25 (14) : 2541-2544

ISSN : 0264-410X

CODEN : VACCDE

Date de publication : 2007

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Type de document : short-communication

Nombre de références : 14 ref.

Résumé : The capacity of an adjuvant to reduce the amount of antigen required in vaccines would be beneficial in a variety of settings, including situations where antigen is difficult or expensive to manufacture, or in situations where demand exceeds production capacity, such as pandemic influenza. The ability to reduce antigen dose would also be a significant advantage in combination vaccines, and vaccines that by necessity must contain multiple antigens to accommodate variability between strains or genotypes. ISCOMATRIX<<sup>T<sup>M> adjuvant was compared to aluminium hydroxide adjuvant (Al(OH₃)) for induction of antibody responses and dose sparing of a recombinant HIV gpl20 vaccine. Neutralising antibody responses were significantly greater, at the same protein dose, when the gpl20 protein was formulated with ISCOMATRIX<<sup>T<sup>M> adjuvant compared to Al(OH₃). Moreover, strong responses were achieved with up to 100-fold lower doses of gpl20 using ISCOMATRIX<<sup>T<sup>M> adjuvant. Therefore, ISCOMATRIX<<sup>T<sup>M> adjuvant has the potential to substantially reduce the dose of antigen required in human vaccines, without compromising the immune response.

Code(s) de classement : 002A05F04; 002A05C10

Descripteur(s) anglais

Descripteur(s) : Human immunodeficiency virus; Immunological adjuvant; Antigen; Vaccine; Humoral immunity; Immune response; Influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Lentivirus; Retroviridae; Virus; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Virus immunodéficience humaine; Adjuvant immunologique; Antigène; Vaccin; Immunité humorale; Réponse immunitaire; Grippe

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Lentivirus; Retroviridae; Virus; Virose; Infection

Localisation : INIST, Shelf number 20289, INIST No. 354000145641170030

Origine de la notice : INIST

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Protective avian influenza in ovo vaccination with non-replicating human adenovirus vector

Titre : Protective avian influenza in ovo vaccination with non-replicating human adenovirus vector

Auteur(s) : TORO Haroldo; TANG De Chu C; SUAREZ David L; SYLTE Matt J; PFEIFFER Jennifer; VAN KAMPEN Kent R

Affiliation(s) : Department of Pathobiology, Auburn University, Auburn, AL 36849, United States; Vaxin Inc, Birmingham, AL 35211, United States; Southeast Poultry Research Laboratory, Agricultural Research Service, USDA, Athens, GA 30605, United States

Source : Vaccine . 2007; 25 (15) : 2886-2891

ISSN : 0264-410X

CODEN : VACCDE

Date de publication : 2007

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 27 ref.

Résumé : Protective immunity against avian influenza virus was elicited in chickens by single-dose in ovo vaccination with a non-replicating human adenovirus vector encoding an H5N9 avian influenza virus hemagglutinin. Vaccinated chickens were protected against both H5N1 (89% hemagglutinin homology; 68% protection) and H5N2 (94% hemagglutinin homology; 100% protection) highly pathogenic avian influenza virus challenges. This vaccine can be mass-administered using available robotic in ovo injectors which provide a major advantage over current vaccination regimens. In addition, this class of adenovirus-vectored vaccines can be produced rapidly with improved safety since they do not contain any replication-competent adenoviruses. Furthermore, this mode of vaccination is compatible with epidemiological surveys of natural avian influenza virus infections.

Code(s) de classement : 002A05F04; 002A05C10

Descripteur(s) anglais

Descripteur(s) : Human adenovirus; Vaccination; Vector; Avian influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Mastadenovirus; Adenoviridae; Virus; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Adenovirus humain; Vaccination; Vecteur; Grippe aviaire

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Mastadenovirus; Adenoviridae; Virus; Infection; Virose

Localisation : INIST, Shelf number 20289, INIST No. 354000145626990160

Origine de la notice : INIST

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CTL epitopes for influenza A including the H5N1 bird flu; genome-, pathogen-, and HLA-wide screening

Titre : CTL epitopes for influenza A including the H5N1 bird flu; genome-, pathogen-, and HLA-wide screening

Auteur(s) : MINGJUN WANG; LAMBERTH Kasper; HARND AHL Mikkel; RODER Gustav; STRYHN Anette; LARSEN Mette V; NIELSEN Morten; LUNDEGAARD Claus; TANG Sheila T; DZIEGIEL Morten H; ROSENKVIST Jorgen; PEDERSEN Anders E; BUUS Soren; CLAEISSON Mogens H; LUND Ole

Affiliation(s) : Laboratory of Cellular Immunology, Department of Medical Anatomy, The Panum Institute, University of Copenhagen, Blegdamsvej 3, 2200 Copenhagen, Denmark; Division of Experimental Immunology, Institute of Medical Microbiology and Immunology, The Panum Institute 18.3.12, University of Copenhagen, Blegdamsvej 3, 2200 Copenhagen, Denmark; Center for Biological Sequence Analysis, BioCentrum-DTU, Technical University of Denmark, Building 208, 2800 Lyngby, Denmark; H:S Blood Bank KI 2034, Copenhagen University Hospital, Blegdamsvej 9, 2100 Copenhagen, Denmark

Source : Vaccine . 2007; 25 (15) : 2823-2831

ISSN : 0264-410X

CODEN : VACCDE

Date de publication : 2007

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 27 ref.

Résumé : The purpose of the present study is to perform a global screening for new immunogenic HLA class I (HLA-I) restricted cytotoxic T cell (CTL) epitopes of potential utility as candidates of influenza A-virus diagnostics and vaccines. We used predictions of antigen processing and presentation, the latter encompassing 12 different HLA class I supertypes with >99% population coverage, and searched for conserved epitopes from available influenza A viral protein sequences. Peptides corresponding to 167 predicted peptide-HLA-I interactions were synthesized, tested for peptide-HLA-I interactions in a biochemical assay and for influenza-specific, HLA-I-restricted CTL responses in an IFN- γ ELISPOT assay. Eighty-nine peptides could be confirmed as HLA-I binders, and 13 could be confirmed as CTL targets. The 13 epitopes, are highly conserved among human influenza A pathogens, and all of these epitopes are present in the emerging bird flu isolates. Our study demonstrates that present technology enables a fast global screening for T cell immune epitopes of potential diagnostics and vaccine interest. This technology includes immuno-bioinformatics predictors with the capacity to perform fast genome-, pathogen-, and HLA-wide searches for immune targets. To exploit this new potential, a coordinated international effort to analyze the precious source of information represented by rare patients, such as the current victims of bird flu, would be essential.

Code(s) de classement : 002A05F04; 002A05C10

Descripteur(s) anglais

Descripteur(s) : Influenza A virus; T Lymphocyte; Cytotoxicity; Antigenic determinant; Genome; HLA System; Peptides; Vaccine; Influenza A; Avian influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Virus grippal A; Lymphocyte T; Cytotoxicité; Déterminant antigénique; Genome; Système HLA; Peptide; Vaccin; Grippe A; Grippe aviaire

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Infection; Virose

Localisation : INIST, Shelf number 20289, INIST No. 354000145626990090

Origine de la notice : INIST

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Personal sampler for viable airborne microorganisms : Main development stages. Beyond pollution - Environmental research in the past and future

Titre : Personal sampler for viable airborne microorganisms : Main development stages. Beyond pollution - Environmental research in the past and future

Auteur(s) : AGRANOVSKI Igor E

Affiliation(s) : Griffith School of Engineering, Griffith University, Brisbane, QLD, Australia

Source : Clean Soil air water. 2007; 35 (1) : 111-117

ISSN : 1863-0650

Date de publication : 2007

Pays de publication : Germany

Langue(s) : English

Type de document : Serial

Nombre de références : 44 ref.

Résumé : A new personal bioaerosol sampler has been developed and verified as an efficient tool for monitoring of viable/non-viable airborne microorganisms, including bacteria, fungi, and viruses. The operational principle of the device is based on continuous passage of an air sample through porous media submerged into a liquid layer. During motion along narrow and tortuous ways inside the porous media, the air stream is split into a large number of ultra small bubbles with the particulates are being scavenged by these bubbles and, thus, effectively trapped. The device was initially verified for monitoring of viable airborne bacteria and fungi, firstly, under controlled laboratory conditions and later in a field. It was demonstrated that bacterial recovery rates for these two groups of microorganisms were very high and the device was found to be fully feasible for such monitoring. The next step of the device investigation was performed in the laboratory on monitoring viable airborne viruses with a range of sensitivities to physical and biological stresses. As the result, the new personal sampler demonstrated a very high recovery rate even for viruses which are rather sensitive to environmental stress (Avian Influenza, SARS, Mumps, etc.). Some following field studies, undertaken in a hospital and animal houses, also demonstrated an excellent performance of the new device for selective and reliable monitoring of viable airborne viruses even in environments highly contaminated by other microorganisms. This paper reviews the main development staged of the new personal bioaerosol sampler.

Code(s) de classement : 226A01; 001E01N01

Descripteur(s) anglais

Descripteur(s) : samplers; microorganisms; bacteria; fungi; air; porous media; layered media; streams; recovery; stress; synthetic aperture radar; field studies; sampling; Narrows

Desc. génériques : Hydrology; Hydrogeology; Earth sciences; Universe sciences; prokaryotes; Thallophyta; Plantae; New York; United States; North America

Descripteur(s) français

Descripteur(s) : Echantillonneur; Microorganisme; Bactérie; Fungi; Air; Milieu poreux; Milieu stratifié; Cours eau; Recuperation; Contrainte; Radar antenne synthétique; Etude terrain; Echantillonnage; Narrows

Desc. génériques : Hydrologie; Hydrogéologie; Sciences de la Terre; Sciences de l'univers; Procaryote; Thallophyta; Plantae; New York; Etats Unis; Amérique du Nord

Localisation : INIST, Shelf number 16925, INIST No. 354000147199920120

Origine de la notice : INIST

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Susceptibility of highly pathogenic A(H5N1) avian influenza viruses to the neuraminidase inhibitors and adamantanes

Titre : Susceptibility of highly pathogenic A(H5N1) avian influenza viruses to the neuraminidase inhibitors and adamantanes

Auteur(s) : HURT A C; SELLECK P; KOMADINA N; SHAW R; BROWN L; BARR I G

Affiliation(s) : World Health Organisation Collaborating Centre for Reference and Research on Influenza, 45 Poplar Road, Parkville, Victoria 3052, Australia; Monash University, School of Applied Sciences, Churchill, Victoria 3842, Australia; CSIRO Australian Animal Health Laboratory, 5 Portarlington Road, Geelong 3220, Victoria, Australia; University of Melbourne, Department of Microbiology and Immunology, Parkville, Victoria 3010, Australia

Source : Antiviral research. 2007; 73 (3) : 228-231

ISSN : 0166-3542

CODEN : ARSRDR

Date de publication : 2007

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Résumé : Since 2003, highly pathogenic A(H5N1) influenza viruses have been the cause of large-scale death in poultry and the subsequent infection and death of over 140 humans. A group of 55 influenza A(H5N1) viruses isolated from various regions of South East Asia between 2004 and 2006 were tested for their susceptibility to the anti-influenza drugs the neuraminidase inhibitors and adamantanes. The majority of strains were found to be fully sensitive to the neuraminidase inhibitors oseltamivir carboxylate, zanamivir and peramivir; however two strains demonstrated increased IC₅₀ values. Sequence analysis of these strains revealed mutations in the normally highly conserved residues 116 and 117 of the N1 neuraminidase. Sequence analysis of the M2 gene showed that all of the A(H5N1) viruses from Vietnam, Malaysia and Cambodia contained mutations (L26I and S31N) associated with resistance to the adamantane drugs (rimantadine and amantadine), while strains from Indonesia were found to be a mix of both adamantane resistant (S31N) and sensitive viruses. None of the A(H5N1) viruses from Myanmar contained mutations known to confer adamantane resistance. These results support the use of neuraminidase inhibitors as the most appropriate class of antiviral drug to prevent or treat human A(H5N1) virus infections.

Code(s) de classement : 002B02S05; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Sensitivity; Pathogenicity; Avian influenza virus; Neuraminidase inhibitor; Antiviral; Resistance; Influenzavirus AH5N1; Avian influenza

Desc. génériques : Virology; Infectious diseases; Pharmacology; Medical sciences; Virology; Infectious diseases; Medical sciences; Influenzavirus A; Orthomyxoviridae; Virus; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Sensibilité; Pouvoir pathogène; Influenzavirus aviaire; Inhibiteur neuraminidase; Adamantane; Antiviral; Résistance; Adamantane dérivé; Influenzavirus AH5N1; Grippe aviaire

Desc. génériques : Virologie; Maladies infectieuses; Pharmacologie; Sciences médicales; Virologie; Maladies infectieuses; Sciences médicales; Influenzavirus A; Orthomyxoviridae; Virus; Infection; Virose

Localisation : INIST, Shelf number 18839, INIST No. 354000147008440110

Origine de la notice : INIST

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Newcastle disease virus-based live attenuated vaccine completely protects chickens and mice from lethal challenge of homologous and heterologous H5N1 avian influenza viruses

Titre : Newcastle disease virus-based live attenuated vaccine completely protects chickens and mice from lethal challenge of homologous and heterologous H5N1 avian influenza viruses

Auteur(s) : JINYING GE; GUOHUA DENG; ZHIYUAN WEN; GUOBING TIAN; YONG WANG; JIANZHONG SHI; XIJUN WANG; YANBING LI; SEN HU; YONGPING JIANG; CHINGLAI YANG; KANGZHEN YU; ZHIGAO BU; HUALAN CHEN

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Source : Journal of virology. 2007; 81 (1) : 150-158

ISSN : 0022-538X

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 41 ref.

Résumé : H5N1 highly pathogenic avian influenza virus (HPAIV) has continued to spread and poses a significant threat to both animal and human health. Current influenza vaccine strategies have limitations that prevent their effective use for widespread inoculation of animals in the field. Vaccine strains of Newcastle disease virus (NDV), however, have been used successfully to easily vaccinate large numbers of animals. In this study, we used reverse genetics to construct a NDV that expressed an H5 subtype avian influenza virus (AIV) hemagglutinin (HA). Both a wild-type and a mutated HA open reading frame (ORF) from the HPAIV wild bird isolate, A/Bar-headed goose/Qinghai/3/2005 (H5N1), were inserted into the intergenic region between the P and M genes of the LaSota NDV vaccine strain. The recombinant viruses stably expressing the wild-type and mutant HA genes were found to be innocuous after intracerebral inoculation of 1-day-old chickens. A single dose of the recombinant viruses in chickens induced both NDV- and AIV H5-specific antibodies and completely protected chickens from challenge with a lethal dose of both velogenic NDV and homologous and heterologous H5N1 HPAIV. In addition, BALB/c mice immunized with the recombinant NDV-based vaccine produced H5 AIV-specific antibodies and were completely protected from homologous and heterologous lethal virus challenge. Our results indicate that recombinant NDV is suitable as a bivalent live attenuated vaccine against both NDV and AIV infection in poultry. The recombinant NDV vaccine may also have potential use in high-risk human individuals to control the pandemic spread of lethal avian influenza.

Code(s) de classement : 002A05C10; 002A05C07

Descripteur(s) anglais

Descripteur(s) : Newcastle disease virus; Chicken; Mouse; Avian influenza virus; Attenuated strain; Vaccine; Virology; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Immunology; Pharmacology; Virology; Microbiology; Biological sciences; Rubulavirus; Paramyxovirinae; Paramyxoviridae; Mononegavirales; Virus; Aves; Vertebrata; Rodentia; Mammalia; Influenzavirus A; Orthomyxoviridae; Veterinary; Poultry; Infection; Viral disease; Farming animal

Descripteur(s) français

Descripteur(s) : Virus Newcastle maladie; Poulet; Souris; Influenzavirus aviaire; Souche atténuée; Vaccin; Virologie; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Immunologie; Pharmacologie; Virologie;

Microbiologie; Sciences biologiques; Rubulavirus; Paramyxovirinae; Paramyxoviridae; Mononegavirales; Virus; Aves; Vertebrata; Rodentia; Mammalia; Influenzavirus A; Orthomyxoviridae; Veterinaire; Volaille; Infection; Virose; Animal elevage

Localisation : INIST, Shelf number 13592, INIST No. 354000159387160130

Origine de la notice : INIST

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Virus-like particle vaccine induces protective immunity against homologous and heterologous strains of influenza virus

Titre : Virus-like particle vaccine induces protective immunity against homologous and heterologous strains of influenza virus

Auteur(s) : QUAN Fu Shi; CHUNZI HUANG; COMPANS Richard W; KANG Sang Moo

Affiliation(s) : Department of Microbiology and Immunology, Emory University School of Medicine, Atlanta, Georgia, United States

Source : Journal of virology. 2007; 81 (7) : 3514-3524

ISSN : 0022-538X

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 41 ref.

Résumé : Recurrent outbreaks of highly pathogenic avian influenza virus pose the threat of pandemic spread of lethal disease and make it a priority to develop safe and effective vaccines. Influenza virus-like particles (VLPs) have been suggested to be a promising vaccine approach. However, VLP-induced immune responses, and their roles in inducing memory immune responses and cross-protective immunity have not been investigated. In this study, we developed VLPs containing influenza virus A/PR8/34 (H1N1) hemagglutinin (HA) and matrix (M1) proteins and investigated their immunogenicity, long-term cross-protective efficacy, and effects on lung proinflammatory cytokines in mice. Intranasal immunization with VLPs containing HA induced high serum and mucosal antibody titers and neutralizing activity against PR8 and A/WSN/33 (H1N1) viruses. Mice immunized with VLPs containing HA showed little or no proinflammatory lung cytokines and were protected from a lethal challenge with mouse-adapted PR8 or WSN viruses even 5 months postimmunization. Influenza VLPs induced mucosal immunoglobulin G and cellular immune responses, which were reactivated rapidly upon virus challenge. Long-lived antibody-secreting cells were detected in the bone marrow of immunized mice. Immune sera administered intranasally were able to confer 100% protection from a lethal challenge with PR8 or WSN, which provides further evidence that anti-HA antibodies are primarily responsible for preventing infection. Taken together, these results indicate that nonreplicating influenza VLPs represent a promising strategy for the development of a safe and effective vaccine to control the spread of lethal influenza viruses.

Code(s) de classement : 002A05C10; 002A05C07

Descripteur(s) anglais

Descripteur(s) : Influenzavirus; Virus like particle; Vaccine; Immunoprotection; Strain; Virology

Desc. génériques : Virology; Microbiology; Biological sciences; Immunology; Pharmacology; Virology; Microbiology; Biological sciences; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Influenzavirus; Particule type viral; Vaccin; Immunoprotection; Souche; Virologie

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Immunologie; Pharmacologie; Virologie; Microbiologie; Sciences biologiques; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number 13592, INIST No. 354000159386250470

Origine de la notice : INIST

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Field performance and new uses of rapid influenza testing in Thailand

Titre : Field performance and new uses of rapid influenza testing in Thailand

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Source : International journal of infectious diseases. 2007; 11 (2) : 166-171

ISSN : 1201-9712

Date de publication : 2007

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 39 ref.

Résumé : Objectives: Rapid influenza tests are increasingly used in surveillance systems and for clinical care in Southeast Asia. However, the performance and utility of rapid influenza tests under field conditions in rural Southeast Asia has not been evaluated. Methods: In the context of a larger study on the causes of respiratory illness in rural Thailand, we used a rapid test to collect data on influenza burden, seasonality, and cost of illness. We compared the performance of the QuickVue Influenza Test to tissue cell viral culture and reverse transcriptase-polymerase chain reaction (RT-PCR) among 1092 Thai patients meeting the World Health Organization case definition for influenza-like illness over a 12-month period. Results: The sensitivity and specificity of the QuickVue test compared to viral culture were 77% and 96%, respectively. Rapid influenza tests were useful to describe the seasonality of influenza, estimate the cost of illness, increase the sensitivity of surveillance, conduct outbreak responses, and guide evaluation of suspected avian influenza virus infections. Conclusions: Despite their high cost, rapid influenza diagnostic tests are useful tools for influenza research, surveillance, and outbreak investigations in Southeast Asia.

Code(s) de classement : 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Influenza; Performance evaluation; Thailand; Rapid technique

Desc. génériques : Virology; Infectious diseases; Medical sciences; Viral disease; Infection; Asia

Descripteur(s) français

Descripteur(s) : Grippe; Evaluation performance; Thaïlande; Technique rapide

Desc. génériques : Virologie; Maladies infectieuses; Sciences médicales; Virose; Infection; Asie

Localisation : INIST, Shelf number 26659, INIST No. 354000159372470120

Origine de la notice : INIST

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Transmission of influenza a in human beings

Titre : Transmission of influenza a in human beings

Auteur(s) : BRANKSTON Gabrielle; GITTERMAN Leah; HIRJI Zahir; LEMIEUX Camille; GARDAM Michael

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Source : Lancet Infectious diseases print. 2007; 7 (4) : 257-265

ISSN : 1473-3099

Date de publication : 2007

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 63 ref.

Résumé : Planning for the next influenza pandemic is occurring at many levels throughout the world, spurred on by the recent spread of H5N1 avian influenza in Asia, Europe, and Africa. Central to these planning efforts in the health-care sector are strategies to minimise the transmission of influenza to health-care workers and patients. The infection control precautions necessary to prevent airborne, droplet, and contact transmission are quite different and will need to be decided on and planned before a pandemic occurs. Despite vast clinical experience in human beings, there continues to be much debate about how influenza is transmitted. We have done a systematic review of the English language experimental and epidemiological literature on this subject to better inform infection control planning efforts. We have found that the existing data are limited with respect to the identification of specific modes of transmission in the natural setting. However, we are able to conclude that transmission occurs at close range rather than over long distances, suggesting that airborne transmission, as traditionally defined, is unlikely to be of significance in most clinical settings. Further research is required to better define conditions under which the influenza virus may transmit via the airborne route.

Code(s) de classement : 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Influenza A; Transmission; Human

Desc. génériques : ENT; Pneumology; Respiratory system; Virology; Infectious diseases; Medical sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Grippe A; Transmission; Homme

Desc. génériques : ORL; Pneumologie; Appareil respiratoire; Virologie; Maladies infectieuses; Sciences médicales; Virose; Infection

Localisation : INIST, Shelf number 27478, INIST No. 354000146944430040

Origine de la notice : INIST

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Does the implementation of radiation oncology outpatient infection control measures adversely affect patient satisfaction with doctor-patient interaction?

Titre : Does the implementation of radiation oncology outpatient infection control measures adversely affect patient satisfaction with doctor-patient interaction?

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Source : Singapore medical journal. 2007; 48 (3) : 246-251

ISSN : 0037-5675

CODEN : SIMJA3

Date de publication : 2007

Pays de publication : Singapore

Langue(s) : English

Type de document : Serial

Nombre de références : 12 ref.

Résumé : Introduction: There are worldwide concerns of an impending avian influenza outbreak, with nations formulating infection control strategies to prepare for such an event. Little evidence exists for how infection control measures impact on the provision of cancer services, or how patient experience would be affected. Our aim was to compare patient satisfaction with doctor-patient interaction, during and following a period of infection control measures. Methods: We measured patient satisfaction using a validated 29-question instrument for two weeks during the implementation of strict infection control measures as a result of the severe acute respiratory syndrome outbreak (T1), and compared results with a two-week period after measures had been lifted (T2). Results: A total of 296 patients were surveyed, 149 at T1 and 147 at T2. Most patients indicated overall satisfaction, with 92.3 percent and 86.9 percent satisfied at T1 and T2, respectively (p-value is not significant). Mean satisfaction index was 3.02 and 3.04 out of 4 at T1 and T2, respectively (p-value is not significant). However, the responses for several individual questions did differ significantly between time points. At T1 more patients indicated satisfaction for understanding the doctor's plans (p-value is 0.001), while at T2, more patients indicated satisfaction for being told how to care for their condition (p-value is 0.04). Conclusion: The study demonstrated high patient satisfaction at both time points. Similar levels of satisfaction despite infection control measures may be due to patients being more tolerant of problems in doctor-patient interactions during the outbreak due to media campaigns. This research may facilitate those healthcare services planning to minimise the impact of infection control measures on patient care.

Code(s) de classement : 002B01

Descripteur(s) anglais

Descripteur(s) : Infection; Radiotherapy; Radiation; Cancerology; Human; Ambulatory; Patient; Surveillance; Satisfaction; Physician patient relation; Interaction; Treatment; Tropical medicine

Desc. génériques : Medical sciences

Descripteur(s) français

Descripteur(s) : Infection; Radiothérapie; Rayonnement; Cancerologie; Homme; Ambulatoire; Malade; Surveillance; Satisfaction; Relation medecin malade; Interaction; Traitement; Medecine tropicale

Desc. génériques : Sciences medicales

Localisation : INIST, Shelf number 20931, INIST No. 354000146932540150

Origine de la notice : INIST

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Increased adamantane resistance in influenza A(H3) viruses in Australia and neighbouring countries in 2005

Titre : Increased adamantane resistance in influenza A(H3) viruses in Australia and neighbouring countries in 2005

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Source : Antiviral research. 2007; 73 (2) : 112-117

ISSN : 0166-3542

CODEN : ARSRDR

Date de publication : 2007

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 3/4 p.

Résumé : The prevention and control of disease caused by seasonal and potential pandemic influenza viruses is currently managed by the use influenza vaccines and antivirals. The adamantanes (amantadine and rimantadine) were the first antivirals licensed for use against influenza A viruses and have been used extensively in some countries. Since the early 2000s increased resistance to these drugs has been reported especially in the A(H3) viruses. In this study we analysed recent human influenza A strains isolated in Australia and regionally for evidence of resistance to adamantanes and found evidence of significant resistant emerging during 2005.

Code(s) de classement : 002B02S05; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Resistance; Influenza A; Australia; Rimantadine; South east Asia; Influenzavirus A; Amantadine; Antiviral

Desc. génériques : Virology; Infectious diseases; Pharmacology; Medical sciences; ENT; Pneumology; Respiratory system; Virology; Infectious diseases; Medical sciences; Viral disease; Infection; Oceania; Asia; Orthomyxoviridae; Virus; Amantadine derivatives; Agonist; Antagonist; Dopamine receptor; Glutamate receptor; NMDA receptor; Dopamine agonist

Descripteur(s) français

Descripteur(s) : Adamantane; Resistance; Grippe A; Australie; Rimantadine; Asie du sud est; Influenzavirus A; Amantadine; Antiviral; Influenzavirus AH3

Desc. génériques : Virologie; Maladies infectieuses; Pharmacologie; Sciences médicales; ORL; Pneumologie; Appareil respiratoire; Virologie; Maladies infectieuses; Sciences médicales; Virose; Infection; Océanie; Asie; Orthomyxoviridae; Virus; Amantadine derive; Agoniste; Antagoniste; Recepteur dopaminergique; Recepteur glutamate; Recepteur NMDA; Stimulant dopaminergique

Localisation : INIST, Shelf number 18839, INIST No. 354000145480860040

Origine de la notice : INIST

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H5N1 influenza virus and the safety of plasma products

Titre : H5N1 influenza virus and the safety of plasma products

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Source : Transfusion Philadelphia PA. 2007; 47 (3) : 452-459

ISSN : 0041-1132

CODEN : TRANAT

Date de publication : 2007

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 16 ref.

Résumé : BACKGROUND: The ever-increasing number of human H5N1 influenza virus infections may enable these viruses to acquire the ability to spread effectively among humans and potentially to cause a pandemic. Recently, more systemic virus dissemination was reported during H5N1 virus infection of humans, resulting in significant virus concentrations also in the blood. The observation has raised concerns about the safety of labile blood products for transfusion and consequentially also for plasma derivatives. To confirm the safety margins of plasma products, dedicated virus inactivation processes used during their production were investigated for their effectiveness in inactivating this virus of recent concern. STUDY DESIGN AND METHODS: Virus inactivation by steps commonly used during the manufacture of plasma derivatives, such as pasteurization for human albumin, solvent/detergent treatment for intravenous immunoglobulin (IVIG), vapor heating for factor VIII inhibitor bypassing activity, and incubation at low pH for IVIG, were investigated with a reassortant strain of H5N1 influenza virus. RESULTS: The results show that H5N1 influenza behaves as expected for lipid-enveloped viruses; that is, the virus is effectively inactivated by all the commonly used virus inactivation procedures tested. CONCLUSION: The safety margins of plasma derivatives against the theoretical transmission of H5N1 influenza virus are very substantial.

Code(s) de classement : 002B27D01; 002B05C02J; 002B05C02G

Descripteur(s) anglais

Descripteur(s) : Transfusion; Virus; Avian influenza

Desc. génériques : Medical sciences; Virology; Infectious diseases; Medical sciences; Gastroenterology; Digestive system; Virology; Infectious diseases; Medical sciences; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Transfusion; Virus; Grippe aviaire

Desc. génériques : Sciences médicales; Virologie; Maladies infectieuses; Sciences médicales; Gastroenterologie; Appareil digestif; Virologie; Maladies infectieuses; Sciences médicales; Infection; Virose

Localisation : INIST, Shelf number 10224, INIST No. 354000159369420150

Origine de la notice : INIST

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Avian and swine influenza viruses : our current understanding of the zoonotic risk. Respiratory viruses of domestic animals

Titre : Avian and swine influenza viruses : our current understanding of the zoonotic risk. Respiratory viruses of domestic animals

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Source : Veterinary research Print. 2007; 38 (2) : 243-260

ISSN : 0928-4249

Date de publication : 2007

Pays de publication : France

Langue(s) : English

Type de document : Serial

Nombre de références : 58 ref.

Résumé : The introduction of swine or avian influenza (AI) viruses in the human population can set the stage for a pandemic, and many fear that the Asian H5N1 AI virus will become the next pandemic virus. This article first compares the pathogenesis of avian, swine and human influenza viruses in their natural hosts. The major aim was to evaluate the zoonotic potential of swine and avian viruses, and the possible role of pigs in the transmission of AI viruses to humans. Cross-species transfers of swine and avian influenza to humans have been documented on several occasions, but all these viruses lacked the critical capacity to spread from human-to-human. The extreme virulence of H5N1 in humans has been associated with excessive virus replication in the lungs and a prolonged overproduction of cytokines by the host, but there remain many questions about the exact viral cell and tissue tropism. Though pigs are susceptible to several AI subtypes, including H5N1, there is clearly a serious barrier to infection of pigs with such viruses. AI viruses frequently undergo reassortment in pigs, but there is no proof for a role of pigs in the generation of the 1957 or 1968 pandemic reassortants, or in the transmission of H5N1 or other wholly avian viruses to humans. The major conclusion is that cross-species transmission of influenza viruses per se is insufficient to start a human influenza pandemic and that animal influenza viruses must undergo dramatic but largely unknown genetic changes to become established in the human population.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Avian influenza virus; Swine; Pathogenesis; Microbiology; Veterinary; Influenza; Zoonosis

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Artiodactyla; Ungulata; Mammalia; Vertebrata; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Porcin; Pathogenie; Microbiologie; Veterinaire; Grippe; Zoonose

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Artiodactyla; Ungulata; Mammalia; Vertebrata; Virose; Infection

Localisation : INIST, Shelf number 14119, INIST No. 354000159952110050

Origine de la notice : INIST

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Genome characterisation of the newly discovered avian influenza A H5N7 virus subtype combination

Titre : Genome characterisation of the newly discovered avian influenza A H5N7 virus subtype combination

Auteur(s) : BRAGSTAD K; JORGENSEN P H; HANDBERG K J; FOMSGAARD A

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Source : Archives of virology. 2007; 152 (3) : 585-593

ISSN : 0304-8608

Date de publication : 2007

Pays de publication : Austria

Langue(s) : English

Type de document : Serial

Nombre de références : 45 ref.

Résumé : In Denmark, in 2003, a previously unknown subtype combination of avian influenza A virus, H5N7 (A/Mallard/Denmark/64650/03), was isolated from a flock of 12,000 mallards. The H5N7 subtype combination might be a reassortant between recent European avian influenza A H5, H7, and a third subtype, possibly an H6. The haemagglutinin and the acidic polymerase genes of the virus were closely related to a low-pathogenic Danish H5N2 virus A/Duck/Denmark/65041/04 (H5N2). The neuraminidase gene and the non-structural gene were most similar to the highly pathogenic A/Chicken/ Netherlands/1/03 (H7N7) and the human-fatal A/Netherlands/219/03 (H7N7), respectively. The basic polymerase 1 and 2 genes were phylogenetically equidistant to both A/Duck/Denmark/65047/04 (H5N2) and A/Chicken/Netherlands/1/03 (H7N7). The nucleoprotein and matrix gene had highest nucleotide sequence similarity to the H6 subtypes A/Duck/Hong Kong/3096/99 (H6N2) and A/WDk/ ST/1737/2000 (H6N8), respectively. All genes of the H5N7 strain were of avian origin, and no further evidence of pathogenicity to humans has been found.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Avian influenzavirus; Influenza A virus; Genome; Subtype

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Virus grippal A; Genome; Soustype

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number 6355, INIST No. 354000146980970130

Origine de la notice : INIST

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Menace liee au virus influenza A/H5N1 et mise en place de la prevention face a un risque de pandémie de grippe; Influenza A/H5N1 virus outbreaks and preparedness to avert flu pandemic

Titre : Menace liee au virus influenza A/H5N1 et mise en place de la prevention face a un risque de pandémie de grippe; Influenza A/H5N1 virus outbreaks and preparedness to avert flu pandemic

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Source : Annales de biologie clinique Paris. 2007; 65 (2) : 125-133

ISSN : 0003-3898

CODEN : ABCLAI

Date de publication : 2007

Pays de publication : France

Langue(s) : French

Langue(s) du résumé : English

Type de document : Serial

Nombre de références : 30 ref.

Résumé : Cette revue insiste sur la necessite de mieux connaitre la biologie du virus influenza A/H5N1, un candidat potentiel pour la prochaine epidemie a influenza. Des connaissances approfondies du mode d' infection, des mecanismes de la pathogenese et de la reponse immunitaire aideront a mettre en oeuvre une strategie de controle efficace et pratique contre ce virus de la grippe. Nous discutons les limitations des vaccins actuellement disponibles et proposons de nouvelles approches pour fabriquer de meilleurs vaccins contre le virus influenza A/H5N1. Ils incluent le systeme de culture cellulaire, la genetique inverse, le developpement d' adjuvant. Notre revue fait ressortir le concept de vaccin therapeutique (anti-maladie), dont le but est de diminuer " l' orage cyto-kinique " observe dans le syndrome de detresse respiratoire aigue et/ou d' hemophagocytose.

Code(s) de classement : 002B24; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Influenza A virus; Prevention; Face; Epidemic; Pathogenesis; Host; Vaccine; Clinical biology; Pandemic; Avian influenza

Desc. génériques : Medical sciences; ENT; Pneumology; Respiratory system; Virology; Infectious diseases; Medical sciences; Influenzavirus A; Orthomyxoviridae; Virus; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Virus grippal A; Prevention; Face; Epidemie; Pathogenie; Hote; Vaccin; Biologie clinique; Pandemie; Grippe aviaire

Desc. génériques : Sciences medicales; ORL; Pneumologie; Appareil respiratoire; Virologie; Maladies infectieuses; Sciences medicales; Influenzavirus A; Orthomyxoviridae; Virus; Infection; Virose

Localisation : INIST, Shelf number 1014, INIST No. 354000146983110010

Origine de la notice : INIST

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**Perceptions related to human avian influenza and their associations with anticipated psychological and behavioral responses at the onset of outbreak in the Hong Kong Chinese general population;
Perceptions liees a la grippe aviaire chez l' homme et leurs associations a des reponses psychologiques et comportementales anticipees a la survenue de l' epidemie dans la population generale chinoise de Hong Kong**

Titre : Perceptions related to human avian influenza and their associations with anticipated psychological and behavioral responses at the onset of outbreak in the Hong Kong Chinese general population; Perceptions liees a la grippe aviaire chez l' homme et leurs associations a des reponses psychologiques et comportementales anticipees a la survenue de l' epidemie dans la population generale chinoise de Hong Kong

Auteur(s) : LAU JT; KIM JH; TSUI H; GRIFFITHS S

Source : AMERICAN JOURNAL OF INFECTION CONTROL. 2007-02; 35 (1) : 38-49

ISSN : 0196-6553

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 14 ref.

Résumé : A l' aide d' une enquete transversale par telephone, 805 chinois adultes de Hong Kong ont ete interroges anonymement en novembre 2005 afin d' etudier leurs croyances liees a la grippe aviaire due au virus H5N1. Parmi ceux qui ont repondu, 71,4% et 52,4%, respectivement, pensaient que la transmission du virus H5N1 de l' oiseau a l' homme ou inter humaine interviendrait au cours de l' annee suivante. Dans l' eventualite d' une epidemie oiseau vers l' homme ou inter humaine a Hong Kong, beaucoup anticipaient des taux de mortalite eleves (70,5% et 74,4%), des lesions physiques definitives (52% et 54,9%), des vaccins inadaptes (50% et 64,4%), des structures medicales insuffisantes, une lutte contre les infections nosocomiales inappropriee (35,1% et 43,3%), une sensibilite elevee des membres de la famille a contracter le virus H5N1 (13,9% et 24,3%) et l' impact sur eux-memes ou sur la famille pire que celui du SRAS (21,2% et 25%). La plupart anticipaient aussi une des 7 reponses de l' etude liees a la tension (par exemple la panique) ou l' adoption d' au moins une des mesures comportementales preventives de l' etude (par exemple eviter de sortir). En conclusion, une panique et une interruption des habitudes quotidiennes pourraient survenir en cas d' epidemie de grippe aviaire chez l' homme. La diffusion d' informations precises en temps opportun pourrait diminuer une angoisse inutile et des comportements non souhaitables

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Influenza; Virus; Epidemic; Asia; Animal; Survey; Cross sectional study; Nosocomial infection; Hygiene; Hospital

Desc. génériques : Public health; Medical sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Grippe; Virus; Epidemie; Asie; Animal; Enquete; Etude transversale; Infection nosocomiale; Hygiene; Hopital

Desc. génériques : Sante publique; Sciences medicales; Virose; Infection

Localisation : BDSP/NOSOBASE, Shelf number 18399

Origine de la notice : BDSP

Pandemic influenza : what infection control professionals should know; Pandemie de grippe : ce que les professionnels en hygiene hospitaliere devraient savoir

Titre : Pandemic influenza : what infection control professionals should know; Pandemie de grippe : ce que les professionnels en hygiene hospitaliere devraient savoir

Auteur(s) : GOLDRICK BA; GOETZ AM

Source : AMERICAN JOURNAL OF INFECTION CONTROL. 2007-02; 35 (1) : 7-13

ISSN : 0196-6553

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 28 ref.

Résumé : Durant le siecle precedent, 3 pandemies de grippe a virus de type A sont survenues et une pandemie grippale surviendra inevitablement dans le futur. Bien que le moment et la severite de la prochaine pandemie ne puissent pas etre predite, la probabilite de la survenue d' une pandemie a augmente si l' on se refere aux epidemies a actuelles (H5N1) en Asie, en Europe et en Afrique. Une detection precoce est essentielle pour prevenir la dissemination de la grippe aviaire. Cette synthese porte sur les pandemies du 20eme siecle, la grippe aviaire et ses epidemies de 1997-2002 et 2003-2006, les etapes de la pandemie, la surveillance d' une pandemie de grippe, la prevention et le controle de la grippe aviaire (vaccins, prevention et controle dans le milieu communautaire, dans les etablissements de sante)

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Influenza; Epidemic; Hygiene; Hospital; Nosocomial infection; United States

Desc. génériques : Public health; Medical sciences; Viral disease; Infection; North America; America

Descripteur(s) français

Descripteur(s) : Grippe; Epidemie; Hygiene; Hopital; Infection nosocomiale; Etats Unis

Desc. génériques : Sante publique; Sciences medicales; Virose; Infection; Amerique du Nord; Amerique

Localisation : BDSP/NOSOBASE, Shelf number 18394

Origine de la notice : BDSP

Risques sanitaires lies a la presence de virus influenza aviaires dans les eaux : evaluation des risques pour la population generale et les travailleurs lies a la presence de virus influenza aviaires hautement pathogenes de sous-type H5N1 ou d' un virus pandemique derive de ce sous-type dans divers effluents aqueux et eaux de surface

Titre : Risques sanitaires lies a la presence de virus influenza aviaires dans les eaux : evaluation des risques pour la population generale et les travailleurs lies a la presence de virus influenza aviaires hautement pathogenes de sous-type H5N1 ou d' un virus pandemique derive de ce sous-type dans divers effluents aqueux et eaux de surface

Auteur(s) : Agence Francaise de Securite Sanitaire de l' Environnement et du Travail AFSSET Maison Alfort, France

Source : 2007; 85 p.

Éditeur : AFSSET, Maisons-Alfort

Date de publication : 2007

Pays de publication : France

Langue(s) : French

Type de document : Book

Nombre de références : dissem.

Résumé : L' Agence francaise de securite sanitaire de l' environnement et du travail (AFSSET) et l' Agence francaise de securite sanitaire des aliments (AFSSA) ont ete saisies le 31 octobre 2005 par le Delege interministeriel a la lutte contre la grippe aviaire (DILGA) d' une demande d' evaluation des risques sanitaires lies a la presence dans l' eau destinee a la consommation humaine et dans divers affluents aqueux de virus influenza aviaires en situation d' epizootie ou dans le cas d' une pandemie humaine

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Risk; Risk analysis; Water; Respiratory system; Recommendation; Epizootics

Desc. génériques : Public health; Medical sciences

Descripteur(s) français

Descripteur(s) : Risque; Analyse risque; Eau; Appareil respiratoire; Recommandation; Epizootie; Agence francaise de securite sanitaire des aliments

Desc. génériques : Sante publique; Sciences medicales

Localisation : BDSP/MIN-SANTE, Shelf number ISO20012283

Origine de la notice : BDSP

A/H5N1 in the European Union : current levels of risk to humans, and responding to human cases and outbreaks; La grippe aviaire A/H5N1 dans l' Union Europeenne : le point sur le risque pour l' homme et les reponses aux cas et epidemies chez l' homme

Titre : A/H5N1 in the European Union : current levels of risk to humans, and responding to human cases and outbreaks; La grippe aviaire A/H5N1 dans l' Union Europeenne : le point sur le risque pour l' homme et les reponses aux cas et epidemies chez l' homme

Auteur(s) : DE MARTIN S; NICOLL A; COULOMBIER D

Source : EUROSURVEILLANCE EUROPEAN COMMUNICABLE DISEASE QUARTERLY. 2006-12; 11 (10-12) : 203-204

ISSN : 1025-496X

Date de publication : 2006

Pays de publication : France

Langue(s) : English

Type de document : Serial

Résumé : Ce numero d' Eurosurveillance publie un rapport d' investigation de Georgia Spala et ses collegues decrivant une epidemie suspectee de cas humains de grippe aviaire A/H5N1 en Grece. Les evenements ont eu lieu au debut du printemps 2006, alors que des cas d' infection par le A/H5N1 chez des oiseaux sauvages etaient rapportes dans plusieurs pays de l' Union Europeenne (UE). De telles infections etaient confirmees chez des oiseaux en Grece, mais apres investigation, aucun cas humain n' a ete confirme. Cependant, les enquetes et les controles de masse qui ont ete realises autour des cas infectes et des deces lors de l' epidemie survenue en Turquie en decembre 2005 et janvier 2006 restent dans les memoires et temoignent de ce qui aurait pu se passer en Grece ou dans d' autres pays de l' UE

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Europe; Epidemic; Epidemiology; Sanitary surveillance

Desc. génériques : Public health; Medical sciences

Descripteur(s) français

Descripteur(s) : Europe; Epidemie; Epidemiologie; Surveillance sanitaire

Desc. génériques : Sante publique; Sciences medicales

Localisation : BDSP/InVS

Origine de la notice : BDSP

Recognition of threats caused by infectious diseases in the Netherlands : the early warning committee; Detection des menaces dues aux maladies infectieuses aux Pays-Bas : le comite d' alerte rapide

Titre : Recognition of threats caused by infectious diseases in the Netherlands : the early warning committee; Detection des menaces dues aux maladies infectieuses aux Pays-Bas : le comite d' alerte rapide

Auteur(s) : RAHAMAT LANGENDOEN JC; VAN VLIET JA; SUIJKERBUIJK AW

Source : EUROSURVEILLANCE EUROPEAN COMMUNICABLE DISEASE QUARTERLY. 2006-12; 11 (10-12) : 242-245

ISSN : 1025-496X

Date de publication : 2006

Pays de publication : France

Langue(s) : English

Type de document : Serial

Résumé : Aux Pays-Bas, le comite d' alerte rapide a ete mis en place pour detecter a temps et de maniere exhaustive les menaces pour la sante publique dues aux maladies infectieuses. L' article decrit les resultats d' une evaluation retrospective et descriptive de l' exhaustivite des evenements detectes par le comite d' alerte rapide. Les informations sur les epidemies de maladies infectieuses aux Pays-Bas en 2002 et 2003 rapportees dans le Journal neerlandais de medecine (Nederlands Tijdschrift voor Geneeskunde), sur les evenements lies aux maladies infectieuses dans d' autres pays ont ete comparees aux rapports des reunions hebdomadaires du comite d' alerte rapide neerlandais. Pour toute epidemie ou evenement survenu a l' etranger mais non mentionne dans les reunions du comite d' alerte, il s' agissait alors de trouver les raisons de cette omission. Pour les evenements touchant d' autres pays, la raison pour en tenir compte ou non dans les reunions du comite etait lie au fait qu' ils constituaient, ou non, une menace pour la sante publique aux Pays-Bas. Toutes les epidemies de maladies infectieuses aux Pays-Bas, publiees ou mentionnees dans le Journal neerlandais de medecine ont fait l' objet de discussions au sein du comite d' alerte. Cependant, trois evenements survenus dans d' autres pays en 2002 n' avaient pas ete discutes par le comite, alors qu' ils auraient du l' etre, selon le critere decrit precedemment. Il s' agit de l' epidemie de grippe aviaire A/H5N1 chez des coqs domestiques a Hong Kong, de l' augmentation de porteurs de microorganismes producteurs de beta-lactamases a spectre elargi chez des patients hospitalises en Ecosse, ainsi que les epidemies de rougeole dans plusieurs pays. En 2003, le comite a traite de tous les evenements survenus dans d' autres pays representant une menace potentielle pour les Pays-Bas. En 2002 et 2003, le comite d' alerte rapide a detecte pratiquement toutes les menaces dues aux maladies infectieuses et les epidemies de maladies infectieuses ayant un impact national et publiees dans diverses sources de la litterature. (R.A.)

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Infection; Netherlands; Network; Sanitary surveillance; Epidemiology

Desc. génériques : Public health; Medical sciences; Europe

Descripteur(s) français

Descripteur(s) : Infection; Pays Bas; Reseau; Surveillance sanitaire; Epidemiologie

Desc. génériques : Sante publique; Sciences medicales; Europe

Localisation : BDSP/InVS

Origine de la notice : BDSP

A pseudo-outbreak of human A/H5N1 infections in Greece and its public health implications; Une pseudo-epidemie d' infections humaines a A/H5N1 en Grece et ses implications en sante publique

Titre : A pseudo-outbreak of human A/H5N1 infections in Greece and its public health implications; Une pseudo-epidemie d' infections humaines a A/H5N1 en Grece et ses implications en sante publique

Auteur(s) : SPALA G; PANAGIOTOPOULOS T; MAVROIDI N; DEDOUKOU X; BAKA A; TSONOU P; TRIANTAFYLLOU P; MENTIS A; KYRIAZOPOULOU V; MELIDOU A; TSIODRAS S

Source : EUROSURVEILLANCE EUROPEAN COMMUNICABLE DISEASE QUARTERLY. 2006-12; 11 (10-12) : 263-267

ISSN : 1025-496X

Date de publication : 2006

Pays de publication : France

Langue(s) : English

Type de document : Serial

Résumé : La recente et large dissemination geographique du virus de la grippe aviaire A/H5N1 hautement pathogene a des consequences importantes en sante publique. En Grece, l' infection de plusieurs oiseaux migrateurs a ete confirmee en fevrier et mars 2006. L' objectif de cet article est de decrire les donnees provenant de cas humains potentiels de H5N1 qui se sont presentes dans des hopitaux locaux avec une infection respiratoire au cours de cette periode, et qui exprimaient leur inquietude par rapport a une exposition au virus de la grippe aviaire. Une etude cas-temoin a ete conduite. L' identification des cas etait realisee a partir d' une definition precise, de l' etude des caracteristiques epidemiologiques et cliniques et d' une recherche du virus de la grippe aviaire A/H5N1 par analyse moleculaire. L' etude couvrait tout le territoire grec pour la periode de fevrier et mars 2006. Les principaux resultats etaient le taux de cas possibles (repondant a la fois aux criteres cliniques et aux criteres epidemiologiques) ainsi que les caracteristiques cliniques ou epidemiologiques permettant de les distinguer des cas potentiels ne repondant qu' a un seul des criteres d' un cas possible. Vingt-six patients potentiels (dont 81% repondaient a un critere clinique et 39% a un critere epidemiologique) se sont presentes pendant la periode concernee dans des hopitaux locaux ou la plupart (85%) ont ete hospitalises. La majorite des cas (85%) ont ete observes dans le nord de la Grece, ou la plupart des cas confirmes de grippe aviaire A/H5N1 ont ete documentes. Cinq patients parmi les 26 etudies repondaient a la definition d' un cas possible. Tous etaient regroupes pendant la periode precoce de cas confirmes A/H5N1 chez des oiseaux migrateurs ($P=0,05$). L' analyse moleculaire s' est revelee negative pour tous les cas possibles. L' application d' une definition de cas revisee etablie selon des recommandations plus recentes de l' Union Europeenne a conduit a l' exclusion de deux cas possibles. Plusieurs cas humains potentiels de A/H5N1 ont ete identifies recemment en Grece. Le timing de l' identification et la localisation geographique des cas potentiels suggerent une prise de conscience accrue dans la population generale, et une interpretation incorrecte de la definition de cas par les cliniciens. (R.A.)

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Greece; Epidemic; Case control study; Human

Desc. génériques : Public health; Medical sciences; Europe

Descripteur(s) français

Descripteur(s) : Grece; Epidemie; Etude cas temoin; Homme

Desc. génériques : Sante publique; Sciences medicales; Europe

Localisation : BDSP/InVS

Origine de la notice : BDSP

Actualites sur la grippe aviaire et sa transmission chez l' homme

Titre : Actualites sur la grippe aviaire et sa transmission chez l' homme

Auteur(s) : DELVALLEE Therese

Source : 2006; 78 p.; pdf

Éditeur : CNRS/INIST, Paris

Date de publication : 2006

Pays de publication : France

Langue(s) : French

Type de document : Book

Nombre de références : dissem.

Résumé : Ce dossier est une synthese documentaire sur la grippe aviaire et sa transmission chez l' homme. Au sommaire : Caracteristiques des virus Influenza A; Epidemiologie des virus Influenza A; Grippe humaine d' origine aviaire; Webographie et bibliographie

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Influenza; Virus; Animal; Virology; Epidemiology; Sanitary surveillance; Bibliography; Emerging disease

Desc. génériques : Public health; Medical sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Grippe; Virus; Animal; Virologie; Epidemiologie; Surveillance sanitaire; Bibliographie; Maladie emergente

Desc. génériques : Sante publique; Sciences medicales; Virose; Infection

Localisation : BDSP/ENSP, Shelf number 157934

Origine de la notice : BDSP

Les virus émergents

Titre : Les virus émergents

Auteur(s) : GESSAIN Antoine; MANUGUERRA Jean Claude

Source : 2006; 127 p.

Éditeur : PUF, Paris

ISBN : 2130555438

Date de publication : 2006

Pays de publication : France

Langue(s) : French

Type de document : Book

Nombre de références : 2 p.

Résumé : Sida, Ebola, SRAS, grippe aviaire, chikungunya... : il est loin le temps où l'éradication de la variole laissait croire à une maîtrise progressive de toutes les maladies infectieuses de l'homme. Aujourd'hui, ces virus "nouveaux" et les maladies, parfois mortelles, qu'ils provoquent prennent souvent de court. À travers de nombreux exemples, cet ouvrage raconte simplement les mécanismes de l'émergence d'un nouveau virus, depuis l'animal porteur jusqu'à l'épidémie. Il montre comment médecins, vétérinaires, chercheurs et institutions internationales travaillent ensemble pour endiguer ces virus

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Virus; Viral disease; Epidemiology; Sanitary surveillance; AIDS; Respiratory disease; Smallpox; Vector; Virology; Disease; Reservoir; Animal; Human; Emerging disease; Ebola hemorrhagic fever

Desc. génériques : Public health; Medical sciences; Infection

Descripteur(s) français

Descripteur(s) : Virus; Virose; Épidémiologie; Surveillance sanitaire; SIDA; Appareil respiratoire pathologie; Variole; Vecteur; Virologie; Maladie; Reservoir; Animal; Homme; Maladie émergente; Fièvre hémorragique Ebola

Desc. génériques : Santé publique; Sciences médicales; Infection

Localisation : BDSP/ENSP, Shelf number 157734, FR40/0946

Origine de la notice : BDSP

Virus émergents. Vers de nouvelles pandémies ?

Titre : Virus émergents. Vers de nouvelles pandémies ?

Auteur(s) : CHASTEL Claude

Source : 2006; 316 p.; ill.

Éditeur : Vuibert, Paris

ISBN : 2711771989

Date de publication : 2006

Pays de publication : France

Langue(s) : French

Type de document : Book

Nombre de références : 1 p.

Résumé : Les émergences virales chez l'homme ne sont pas des phénomènes nouveaux, mais depuis les années 1950-1970 le phénomène s'accélère. Parmi les multiples facteurs qui interviennent dans l'émergence ou la réémergence de ces maladies virales, l'homme est le principal responsable. Au sommaire : Quelques notions de bases concernant les virus et les maladies à virus; Le Sida : "un tsunami silencieux" (1981); La fièvre de la vallée du rift étend son emprise en Afrique et gagne le Moyen-Orient; Le concept d'émergence virale; La fièvre hémorragique du Venezuela (1989); L'hépatite C, une émergence virale révélée par la biologie moléculaire (1989); La pneumonie des Navajos ou hantavirose respiratoire (1993); Le virus West Nile se réveille et gagne le Nouveau Monde (1999); Les réveils des virus Ebola et Marburg (194-2005); Le Monkeypox s'épidémise et franchit l'Atlantique (2003); La grippe aviaire H5N1 et les risques d'une nouvelle pandémie; L'encéphalite à virus Nipah (1998-1999); L'émergence du SRAS, première pandémie du XXI^e siècle (2002-2003); Le concept de réussite émergentielle; Peut-on expliquer l'apparition des émergences et réémergences virales chez l'homme ? Perspectives de lutte; Et le virus Chikungunya s'abat sur l'île de la Réunion (2005-2006)

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Virus; Viral disease; Epidemiology; Sanitary surveillance; Virology; Case history; Viral hepatitis; Animal; Human; Smallpox; Emerging disease; Hepatitis C virus; Ebola hemorrhagic fever

Desc. génériques : Public health; Medical sciences; Infection; Hepacivirus; Flaviviridae

Descripteur(s) français

Descripteur(s) : Virus; Virose; Epidemiologie; Surveillance sanitaire; Virologie; Historique; Hépatite virale; Animal; Homme; Variole; Maladie émergente; Virus hépatite C; Fièvre hémorragique Ebola

Desc. génériques : Santé publique; Sciences médicales; Infection; Hepacivirus; Flaviviridae

Localisation : BDSP/ENSP, Shelf number 157733, FR40/0947

Origine de la notice : BDSP

Thermal inactivation of H5N1 high pathogenicity avian influenza virus in naturally infected chicken meat

Titre : Thermal inactivation of H5N1 high pathogenicity avian influenza virus in naturally infected chicken meat

Auteur(s) : THOMAS Colleen; SWAYNE David E

Affiliation(s) : Southeast Poultry Research Laboratory, Exotic and Emerging Avian Viral Disease Research Unit, Agricultural Research Service, U.S. Department of Agriculture, 934 College Station Road, Athens, Georgia 30605, United States

Source : Journal of food protection. 2007; 70 (3) : 674-680

ISSN : 0362-028X

CODEN : JFPRDR

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 38 ref.

Résumé : Thermal inactivation of the H5N1 high pathogenicity avian influenza (HPAI) virus strain A/chicken/Korea/ES/2003 (Korea/03) was quantitatively measured in thigh and breast meat harvested from infected chickens. The Korea/03 titers were recorded as the mean embryo infectious dose (EID₅₀) and were 10^{8.0} EID₅₀/g in uncooked thigh samples and 10^{7.5} EID₅₀/g in uncooked breast samples. Survival curves were constructed for Korea/03 in chicken thigh and breast meat at 1°C intervals for temperatures of 57 to 61°C. Although some curves had a slightly biphasic shape, a linear model provided a fair-to-good fit at all temperatures, with R² values of 0.85 to 0.93. Stepwise linear regression revealed that meat type did not contribute significantly to the regression model and generated a single linear regression equation for z-value calculations and D-value predictions for Korea/03 in both meat types. The z-value and the upper limit of the 95% confidence interval for the z-value were 4.64 and 5.32°C, respectively. From the lowest temperature to the highest, the predicted D-values and the upper limits of their 95% prediction intervals (conservative D-values) for 57 to 61°C were 241.2 and 321.1 s, 146.8 and 195.4 s, 89.3 and 118.9 s, 54.4 and 72.4 s, and 33.1 and 44.0 s. D-values and conservative D-values predicted for higher temperatures were 0.28 and 0.50 s for 70°C and 0.041 and 0.073 s for 73.9°C. Calculations with the conservative D-values predicted that cooking chicken meat according to current U.S. Department of Agriculture Food Safety and Inspection Service time-temperature guidelines will inactivate Korea/03 in a heavily contaminated meat sample, such as those tested in this study, with a large margin of safety.

Code(s) de classement : 002A35D; 002A35B05

Descripteur(s) anglais

Descripteur(s) : Inactivation; Pathogenicity; Chicken meat; Virus

Desc. génériques : Food microbiology; Agriculture; Food industry; Biological sciences; Agriculture; Food industry; Biological sciences; Meat product

Descripteur(s) français

Descripteur(s) : Inactivation; Pouvoir pathogène; Viande poulet; Virus

Desc. génériques : Microbiologie alimentaire; Agriculture; Industries alimentaires; Sciences biologiques; Agriculture; Industries alimentaires; Sciences biologiques; Produit viande

Localisation : INIST, Shelf number 547, INIST No. 354000146928500200

Origine de la notice : INIST

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Inactivation of avian influenza virus by heat and high hydrostatic pressure

Titre : Inactivation of avian influenza virus by heat and high hydrostatic pressure

Auteur(s) : ISBARN Sonja; BUCKOW Roman; HIMMELREICH Anke; LEHMACHER Anselm; HEINZ Volker

Affiliation(s) : Institut für Hygiene und Umwelt, Abteilung Mikrobiologischer Verbraucherschutz, Marckmannstrasse 129a, 20539 Hamburg, Germany; Technische Universität Berlin, Institut für Lebensmittelbiotechnologie und -prozessertechnik, Konigin-Luise-Strasse 22, 14195 Berlin, Germany

Source : Journal of food protection. 2007; 70 (3) : 667-673

ISSN : 0362-028X

CODEN : JFPRDR

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 33 ref.

Résumé : Avian influenza viruses threaten the life of domestic terrestrial poultry and contaminate poultry meat and eggs. Recently, these viruses rarely infected humans but had a high mortality rate in Southeast Asia, the Middle East, and Egypt. Thereby, these viruses caused high economic costs for production of poultry and health protection. We inactivated a highly pathogenic avian influenza A virus of subtype H7N7 in cell culture medium and chicken meat by heat and high hydrostatic pressure. Because heat and pressure inactivation curves of the H7N7 virus showed deviations from first-order kinetics, a reaction order of 1.1 had to be selected. A mathematical inactivation model has been developed that is valid between 10 and 60°C and up to 500 MPa, allowing the prediction of the reduction in virus titer in response to pressure, temperature, and treatment time. Incubation at 63°C for 2 min and 500 MPa at 15°C for 15 s inactivated more than 10⁵ PFU/ml, respectively. Thus, we suggest high-pressure treatment of poultry and its products to avoid the possible health threat by highly pathogenic avian influenza viruses.

Code(s) de classement : 002A35D

Descripteur(s) anglais

Descripteur(s) : Inactivation; Heat; High pressure; Virus; Hydrostatic pressure

Desc. génériques : Food microbiology; Agriculture; Food industry; Biological sciences; Environmental factor; Temperature; Physical dressing

Descripteur(s) français

Descripteur(s) : Inactivation; Chaleur; Haute pression; Virus; Pression hydrostatique

Desc. génériques : Microbiologie alimentaire; Agriculture; Industries alimentaires; Sciences biologiques; Facteur milieu; Temperature; Traitement physique

Localisation : INIST, Shelf number 547, INIST No. 354000146928500190

Origine de la notice : INIST

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Analysis of spatial distribution and transmission characters for highly pathogenic avian influenza in Chinese mainland in 2004. Remote sensing of the environment : 15th National Symposium on Remote Sensing of China : 19-23 August, 2005, Guiyang City, China

Titre : Analysis of spatial distribution and transmission characters for highly pathogenic avian influenza in Chinese mainland in 2004. Remote sensing of the environment : 15th National Symposium on Remote Sensing of China : 19-23 August, 2005, Guiyang City, China

Auteur(s) : LIU Y L; WEI C J; YAN L; CHI T H; WU X B; XIAO C S; TONG Qingxi, ed; GAO Wei, ed; GUO Huadong, ed

Auteur(s) : Association on Environment Remote Sensing of China, China, org cong.; State Key Laboratory of Remote Sensing Science, China, org cong.; Society of Photo optical Instrumentation Engineers, United States, org cong.; Institute of Remote Sensing Applications, China, org cong.; Image Info, China, org cong.

Affiliation(s) : Institute of Remote Sensing Applications, Chinese Academy of Sciences, Datun Road, Chaoyang District, Beijing, 100101, China

Source : Proceedings of SPIE the International Society for Optical Engineering. 2006; 6200 : 620011.1-620011.8

Informations congrès : *National Symposium on Remote Sensing of China, *15, *Guiyang City China, *2005

ISSN : 0277-786X

ISBN : 081946256X

Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial; *Conference-Meeting

Nombre de références : 27 ref.

Notes : Illustration

Résumé : After the outbreak of highly pathogenic Avian Influenza (HPAI) in South Korea in the end of year 2003, estimates of the impact of HPAI in affected countries vary greatly, the total direct losses are about 3 billion US dollars, and it caused 15 million birds and poultry flocks death. It is significant to understand the spatial distribution and transmission characters of HPAI for its prevention and control. According to 50 outbreak cases for HPAI in Chinese mainland during 2004, this paper introduces the approach of spatial distribution and transmission characters for HPAI and its results. Its approach is based on remote sensing and GIS techniques. Its supporting data set involves normalized difference vegetation index (NDVI) and land surface temperature (Ts) derived from a time-series of remote sensing data of 1 kilometer-resolution NOAA/AVHRR, birds' migration routes, topology geographic map, lake and wetland maps, and meteorological observation data. In order to analyze synthetically using these data, a supporting platform for analysis Avian Influenza epidemic situation (SPAS/AI) was developed. Supporting by SPAS/AI, the integrated information from multi-sources can be easily used to the analysis of the spatial distribution and transmission character of HPAI. The results show that the range of spatial distribution and transmission of HPAI in China during 2004 connected to environment factors NDVI, Ts and the distributions of lake and wetland, and especially to bird migration routes. To some extent, the results provide some suggestions for the macro-decision making for the prevention and control of HPAI in the areas of potential risk and reoccurrence.

Code(s) de classement : 225B04; 226B04; 001E01M04; 001E01O04

Descripteur(s) anglais

Descripteur(s) : pathology; Aves; spatial distribution; remote sensing; geographic information systems; migration; trajectory; radiometry; very high resolution; NOAA; China; vegetation; topology; maps; time series analysis; platforms; lakes; wetlands; decision making; risk assessment

Desc. génériques : Tectonics; Earth sciences; Universe sciences; Hydrology; Hydrogeology; Earth sciences; Universe

sciences; Tetrapoda; Vertebrata; Chordata; Far East; Asia

Descripteur(s) français

Descripteur(s) : Pathologie; Aves; Distribution spatiale; Teledetection; Systeme information géographique; Migration; Trajectoire; Radiometrie; Tres haute resolution; NOAA; Chine; Vegetation; Topologie; Carte; Analyse serie temporelle; Plateforme; Lac; Zone humide; Prise decision; Analyse risque; AVHRR; Indice vegetation; NDVI; Grippe aviaire

Desc. génériques : Tectonique; Sciences de la Terre; Sciences de l'univers; Hydrologie; Hydrogeologie; Sciences de la Terre; Sciences de l'univers; Tetrapoda; Vertebrata; Chordata; Extreme Orient; Asie

Localisation : INIST, Shelf number 21760, INIST No. 354000153493280370

Origine de la notice : INIST

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NS1 proteins of avian influenza A viruses can act as antagonists of the human alpha/beta interferon response

Titre : NS1 proteins of avian influenza A viruses can act as antagonists of the human alpha/beta interferon response

Auteur(s) : HAYMAN A; COMELY S; LACKENBY A; HARTGROVES L C S; GOODBOURN S; MCCAULEY J W; BARDAY W S

Affiliation(s) : School of Biological Sciences, University of Reading, Whiteknights, Reading RG6 6AJ, United Kingdom; Division of Microbiology, Institute for Animal Health, Compton Laboratory, Berkshire RG20 7NN, United Kingdom; Division of Basic Medical Sciences, St. George's, University of London, London SW17 ORE, United Kingdom

Source : Journal of virology. 2007; 81 (5) : 2318-2327

ISSN : 0022-538X

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 50 ref.

Résumé : Many viruses, including human influenza A virus, have developed strategies for counteracting the host type I interferon (IFN) response. We have explored whether avian influenza viruses were less capable of combating the type I IFN response in mammalian cells, as this might be a determinant of host range restriction. A panel of avian influenza viruses isolated between 1927 and 1997 was assembled. The selected viruses showed variation in their ability to activate the expression of a reporter gene under the control of the IFN- β promoter and in the levels of IFN induced in mammalian cells. Surprisingly, the avian NS1 proteins expressed alone or in the genetic background of a human influenza virus controlled IFN- β induction in a manner similar to the NS1 protein of human strains. There was no direct correlation between the IFN- β induction and replication of avian influenza viruses in human A549 cells. Nevertheless, human cells deficient in the type I IFN system showed enhanced replication of the avian viruses studied, implying that the human type I IFN response limits avian influenza viruses and can contribute to host range restriction.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Avian influenzavirus; Human; Protein; Alpha interferon; Beta interferon; Virology

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Cytokine

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Homme; Protéine; Interféron alpha; Interféron beta; Virologie

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Cytokine

Localisation : INIST, Shelf number 13592, INIST No. 354000143268060230

Origine de la notice : INIST

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Identification of A/H5N1 influenza viruses using a single gene diagnostic microarray

Titre : Identification of A/H5N1 influenza viruses using a single gene diagnostic microarray

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Source : Analytical chemistry Washington DC. 2007; 79 (1) : 378-384

ISSN : 0003-2700

CODEN : ANCHAM

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Type de document : correspondence,-letters

Notes : ref. et notes dissem.

Résumé : In previous work, a simple diagnostic DNA microarray that targeted only the matrix gene segment of influenza A (MChip) was developed and evaluated with patient samples. In this work, the analytical utility of the MChip for detection and subtyping of an emerging virus was evaluated with a diverse set of A/H5N1 influenza viruses. A total of 43 different highly pathogenic A/H5N1 viral isolates that were collected from diverse geographic locations, including Vietnam, Nigeria, Indonesia, and Kazakhstan, representing human, feline, and a variety of avian infections spanning the time period 2003-2006 were used in this study. A probabilistic artificial neural network was developed for automated microarray image interpretation through pattern recognition. The microarray assay and subsequent subtype assignment by the artificial neural network resulted in correct identification of 24 "unknown" A/H5N1 positive samples with no false positives. Analysis of a data set composed of A/H5N1, A/H3N2, and A/H1N1 positive samples and negative controls resulted in a clinical sensitivity of 97% and a clinical specificity of 100%.

Code(s) de classement : 001C04A

Descripteur(s) anglais

Descripteur(s) : Microanalysis; Chemical sensor; Sensor array; DNA; Human; Neural network; Automatic processing; Pattern recognition; Chemical analysis; False positive; Data analysis; Sensitivity; Influenzavirus

Desc. génériques : Analytical chemistry; Chemistry; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Microanalyse; Capteur chimique; Réseau capteur; DNA; Homme; Réseau neuronal; Traitement automatique; Reconnaissance forme; Analyse chimique; Faux positif; Analyse donnée; Sensibilité; Influenzavirus

Desc. génériques : Chimie analytique; Chimie; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number 120B, INIST No. 354000145274450530

Origine de la notice : INIST

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Rapid and highly sensitive pathotyping of avian influenza a H5N1 virus by using real-time reverse transcription-PCR

Titre : Rapid and highly sensitive pathotyping of avian influenza a H5N1 virus by using real-time reverse transcription-PCR

Auteur(s) : HOFFMANN Bernd; HARDER Timm; STARICK Elke; DEPNER Klaus; WERNER Ortrud; BEER Martin

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Source : Journal of clinical microbiology Print. 2007; 45 (2) : 600-603

ISSN : 0095-1137

CODEN : JCMIDW

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 10 ref.

Résumé : Rapid typing of the pathogenicity of avian influenza A viruses (AIV) of subtypes H5 and H7 is crucial to initiate adequate protective measures preventing the spread of highly pathogenic AIV (HPAIV). Here, a new real-time reverse transcription-PCR assay which enables sensitive and specific detection and cleavage site analysis of HPAIV H5N1 of the Qinghai lineage is described.

Code(s) de classement : 002A05C10; 002B05

Descripteur(s) anglais

Descripteur(s) : Avian influenza virus; Influenza A virus; Real time; Reverse transcription polymerase chain reaction; Microbiology; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Infectious diseases; Medical sciences; Influenzavirus A; Orthomyxoviridae; Virus; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Virus grippal A; Temps reel; Reaction chaine polymerase RT; Microbiologie; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences medicales; Influenzavirus A; Orthomyxoviridae; Virus; Infection; Virose

Localisation : INIST, Shelf number 17088, INIST No. 354000145500250580

Origine de la notice : INIST

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Using a resequencing microarray as a multiple respiratory pathogen detection assay

Titre : Using a resequencing microarray as a multiple respiratory pathogen detection assay

Auteur(s) : BAOCHUAN LIN; BLANEY Kate M; MALANOSKI Anthony P; LIGLER Adam G; SCHNUR Joel M; METZGAR David; RUSSELL Kevin L; STENGER David A

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Source : Journal of clinical microbiology Print. 2007; 45 (2) : 443-452

ISSN : 0095-1137

CODEN : JCMIDW

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 42 ref.

Résumé : Simultaneous testing for detection of infectious pathogens that cause similar symptoms (e.g., acute respiratory infections) is invaluable for patient treatment, outbreak prevention, and efficient use of antibiotic and antiviral agents. In addition, such testing may provide information regarding possible coinfections or induced secondary infections, such as virally induced bacterial infections. Furthermore, in many cases, detection of a pathogen requires more than genus/species-level resolution, since harmful agents (e.g., avian influenza virus) are grouped with other, relatively benign common agents, and for every pathogen, finer resolution is useful to allow tracking of the location and nature of mutations leading to strain variations. In this study, a previously developed resequencing microarray that has been demonstrated to have these capabilities was further developed to provide individual detection sensitivity ranging from 10^1 to 10^3 genomic copies for more than 26 respiratory pathogens while still retaining the ability to detect and differentiate between close genetic neighbors. In addition, the study demonstrated that this system allows unambiguous and reproducible sequence-based strain identification of the mixed pathogens. Successful proof-of-concept experiments using clinical specimens show that this approach is potentially very useful for both diagnostics and epidemic surveillance.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Detection; Microbiology

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences

Descripteur(s) français

Descripteur(s) : Detection; Microbiologie

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales

Localisation : INIST, Shelf number 17088, INIST No. 354000145500250300

Origine de la notice : INIST

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Maladies infectieuses (sauf sida) : Nouveauté en médecine 2006 (première partie); Infectious diseases (beside AIDS)

Titre : Maladies infectieuses (sauf sida) : Nouveauté en médecine 2006 (première partie); Infectious diseases (beside AIDS)

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Source : Revue médicale suisse. 2007; 3 (93) : 26-29

ISSN : 1660-9379

Date de publication : 2007

Pays de publication : Switzerland

Langue(s) : French

Langue(s) du résumé : English

Type de document : Serial

Nombre de références : 26 ref.

Résumé : L'actualité infectiologique est surtout épidémiologique. Le virus Influenza A H5N1 poursuit sa dissémination. Il n'est pas adapté à l'homme, mais les progrès scientifiques confirment son potentiel pandémique. Le Chikungunya a pris des proportions impressionnantes autour de l'océan Indien. De nouveaux staphylocoques dorés résistants se propagent dans la communauté. Enfin, une souche très virulente de *Clostridium difficile* apparaît en Amérique du Nord et en Europe. Les nouveautés thérapeutiques sont rares. Plusieurs publications encouragent l'utilisation rationnelle des antibiotiques à disposition, par exemple par la prescription différée en cas d'otite moyenne aiguë ou l'utilisation appropriée des cultures urinaires chez les patients âgés. Un vaccin contre le virus du papillome humain offre désormais une protection efficace contre le cancer du col utérin.

Code(s) de classement : 002B05

Descripteur(s) anglais

Descripteur(s) : Infection; Influenzavirus; Chikungunya virus; Staphylococcus aureus; Clostridium difficile; Human papillomavirus 16; Epidemiology; Treatment; Antibiotic; Vaccine; Human

Desc. génériques : Infectious diseases; Medical sciences; Orthomyxoviridae; Virus; Alphavirus; Togaviridae; Micrococcaceae; Micrococcales; Bacteria; Clostridiaceae; Clostridiales; Human papillomavirus; Papillomavirus; Papovaviridae; Immune deficiency; Viral disease; Immunopathology

Descripteur(s) français

Descripteur(s) : Infection; Influenzavirus; Virus Chikungunya; Staphylococcus aureus; Clostridium difficile; Papillomavirus humain 16; Épidémiologie; Traitement; Antibiotique; Vaccin; Homme

Desc. génériques : Maladies infectieuses; Sciences médicales; Orthomyxoviridae; Virus; Alphavirus; Togaviridae; Micrococcaceae; Micrococcales; Bactérie; Clostridiaceae; Clostridiales; Papillomavirus humain; Papillomavirus; Papovaviridae; Immunodéficit; Virose; Immunopathologie

Localisation : INIST, Shelf number 27566, INIST No. 354000159674750050

Origine de la notice : INIST

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Radiological and clinical course of pneumonia in patients with avian influenza H5N1

Titre : Radiological and clinical course of pneumonia in patients with avian influenza H5N1

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Source : European journal of radiology. 2007; 61 (2) : 245-250

ISSN : 0720-048X

CODEN : EJRADR

Date de publication : 2007

Pays de publication : Ireland

Langue(s) : English

Type de document : Serial

Nombre de références : 8 ref.

Résumé : Introduction: We evaluated chest X-ray and clinical findings of patients with lower respiratory tract infection due to influenza H5N1 and presented the radiological findings and clinical course of the infection. Materials and methods: Between December 2005 and February 2006, eight hospitalized patients (median age 10, 5-15 years) with avian-flu were evaluated in this study. All patients were evaluated with chest X-ray and four of them with CT scan. Post mortem pathological characterization were also available for three of the patients. Results: A rapidly progressive pneumonia with high mortality rate was observed especially for cases with late admission. The major radiologic abnormalities were extensive pneumonic infiltration with segmental and multifocal distribution, mostly located in lower zones of the lung. No pleural effusion and hilar lymphadenopathy was noted. Conclusion: Avian flu may be presented as rapidly progressive pneumonia. The chest radiography has an important role in diagnosis and should be obtained daily because of rapid change of the findings that may necessitate prompt action.

Code(s) de classement : 002B05C02C; 002B11D

Descripteur(s) anglais

Descripteur(s) : Pneumonia; Pneumopathy; Infection; Radiography; Human; Avian influenza; Influenzavirus AH5N1

Desc. génériques : Virology; Infectious diseases; Medical sciences; Pneumology; Respiratory system; Medical sciences; Respiratory disease; Lung disease; Viral disease; Exploration; Radiodiagnosis

Descripteur(s) français

Descripteur(s) : Pneumonie; Pneumopathie; Infection; Radiographie; Homme; Grippe aviaire; Influenzavirus AH5N1

Desc. génériques : Virologie; Maladies infectieuses; Sciences médicales; Pneumologie; Appareil respiratoire; Sciences médicales; Appareil respiratoire pathologie; Poumon pathologie; Virose; Exploration; Radiodiagnostic

Localisation : INIST, Shelf number 18731, INIST No. 354000159732830090

Origine de la notice : INIST

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A cell-based luminescence assay is effective for high-throughput screening of potential influenza antivirals

Titre : A cell-based luminescence assay is effective for high-throughput screening of potential influenza antivirals

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Source : Antiviral research. 2007; 73 (1) : 50-59

ISSN : 0166-3542

CODEN : ARSRDR

Date de publication : 2007

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 2 p.1/4

Résumé : The spread of highly pathogenic avian influenza across geographical and species barriers underscores the increasing need for novel antivirals to compliment vaccination and existing antiviral therapies. Identification of new antiviral lead compounds depends on robust primary assays for high-throughput screening (HTS) of large compound libraries. We have developed a cell-based screen for potential influenza antivirals that measures the cytopathic effect (CPE) induced by influenza virus (A/Udm/72, H3N2) infection in Madin Darby canine kidney (MDCK) cells using the luminescent-based CellTiter Glo system. This 72 h assay is validated for HTS in 384-well plates and performs more consistently and reliably than methods using neutral red, with Z values > 0.8, signal-to-background > 30 and signal-to-noise > 10. In a blinded pilot screen (n = 10,781) at 10 μ M concentration, four compounds (with previously demonstrated efficacy against influenza) inhibited viral-induced CPE by >50%, with EC₅₀/CC₅₀ values comparable to those determined by other cell-based assays, thereby validating this assay accuracy and ability to simultaneously evaluate compound cellular availability and/or toxicity. This assay is translatable for screening against other influenza strains, such as avian flu, and may facilitate identification of antivirals for other viruses that induce CPE, such as West Nile or Dengue.

Code(s) de classement : 002B02S05; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : In vitro; High throughput screening; Cell culture; Antiviral; Cytopathology; Influenzavirus; Luminescence

Desc. génériques : Virology; Infectious diseases; Pharmacology; Medical sciences; Virology; Infectious diseases; Medical sciences; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : In vitro; Criblage haut debit; Culture cellulaire; Antiviral; Cytopathologie; Influenzavirus; Luminescence

Desc. génériques : Virologie; Maladies infectieuses; Pharmacologie; Sciences médicales; Virologie; Maladies infectieuses; Sciences médicales; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number 18839, INIST No. 354000159830350060

Origine de la notice : INIST

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Aberrant innate immune response in lethal infection of macaques with the 1918 influenza virus

Titre : Aberrant innate immune response in lethal infection of macaques with the 1918 influenza virus

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Source : Nature London. 2007; 445 (7125) : 319-323

ISSN : 0028-0836

CODEN : NATUAS

Date de publication : 2007

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Type de document : correspondence,-letters

Nombre de références : 30 ref.

Résumé : The 1918 influenza pandemic was unusually severe, resulting in about 50 million deaths worldwide¹. The 1918 virus is also highly pathogenic in mice, and studies have identified a multigenic origin of this virulent phenotype in mice²⁻⁴. However, these initial characterizations of the 1918 virus did not address the question of its pathogenic potential in primates. Here we demonstrate that the 1918 virus caused a highly pathogenic respiratory infection in a cynomolgus macaque model that culminated in acute respiratory distress and a fatal outcome. Furthermore, infected animals mounted an immune response, characterized by dysregulation of the antiviral response, that was insufficient for protection, indicating that atypical host innate immune responses may contribute to lethality. The ability of influenza viruses to modulate host immune responses, such as that demonstrated for the avian H5N1 influenza viruses⁵, may be a feature shared by the virulent influenza viruses.

Code(s) de classement : 002B05C02C; 002A05C04

Descripteur(s) anglais

Descripteur(s) : Natural immunity; Immune response; Infection; Host agent relation; Influenza; Influenzavirus A

Desc. génériques : Virology; Infectious diseases; Medical sciences; Virology; Microbiology; Biological sciences; Viral disease; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Immunité naturelle; Réponse immunitaire; Infection; Relation hôte agent; Grippe; Influenzavirus A

Desc. génériques : Virologie; Maladies infectieuses; Sciences médicales; Virologie; Microbiologie; Sciences biologiques; Virose; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number 142, INIST No. 354000159626410200

Origine de la notice : INIST

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Strategies for mitigating an influenza pandemic

Titre : Strategies for mitigating an influenza pandemic

Auteur(s) : FERGUSON Neil M; CUMMINGS Derek A T; FRASER Christophe; CAJKA James C; COOLEY Philip C; BURKE Donald S

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Source : Nature London. 2006; 442 (7101) : 448-452

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CODEN : NATUAS

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Type de document : correspondence,-letters

Nombre de références : 24 ref.

Résumé : Development of strategies for mitigating the severity of a new influenza pandemic is now a top global public health priority. Influenza prevention and containment strategies can be considered under the broad categories of antiviral, vaccine and non-pharmaceutical (case isolation, household quarantine, school or workplace closure, restrictions on travel) measures¹. Mathematical models are powerful tools for exploring this complex landscape of intervention strategies and quantifying the potential costs and benefits of different options<sup>2<sup>-⁵. Here we use a large-scale epidemic simulation⁶ to examine intervention options should initial containment<sup>6<sup>,⁷ of a novel influenza outbreak fail, using Great Britain and the United States as examples. We find that border restrictions and/or internal travel restrictions are unlikely to delay spread by more than 2-3 weeks unless more than 99% effective. School closure during the peak of a pandemic can reduce peak attack rates by up to 40%, but has little impact on overall attack rates, whereas case isolation or household quarantine could have a significant impact, if feasible. Treatment of clinical cases can reduce transmission, but only if antivirals are given within a day of symptoms starting. Given enough drugs for 50% of the population, household-based prophylaxis coupled with reactive school closure could reduce clinical attack rates by 40-50%. More widespread prophylaxis would be even more logistically challenging but might reduce attack rates by over 75%. Vaccine stockpiled in advance of a pandemic could significantly reduce attack rates even if of low efficacy. Estimates of policy effectiveness will change if the characteristics of a future pandemic strain differ substantially from those seen in past pandemics.

Code(s) de classement : 002B05C02C; 002B30A11; 002B30A03

Descripteur(s) anglais

Descripteur(s) : Immunoprophylaxis; Strategy; Influenza A; World; Public health; Priority; Prevention; Antiviral; Vaccine; Isolation; Household; School environment; Work place; Occupational medicine; Closure; Travel; Mathematical model

Desc. génériques : Virology; Infectious diseases; Medical sciences; Public health; Medical sciences; Public health; Medical sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Immunoprophylaxie; Strategie; Grippe A; Monde; Sante publique; Priorite; Prevention; Antiviral; Vaccin; Isolement; Menage; Milieu scolaire; Lieu travail; Medecine du travail; Fermeture; Voyage; Modele mathematique; Grippe pandemique; Pandemie

Desc. génériques : Virologie; Maladies infectieuses; Sciences medicales; Sante publique; Sciences medicales; Sante publique; Sciences medicales; Virose; Infection

Localisation : INIST, Shelf number 142, INIST No. 354000138998600240

Origine de la notice : INIST

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Molecular analysis of highly pathogenic avian influenza virus of subtype H5N1 isolated from wild birds and mammals in northern Germany

Titre : Molecular analysis of highly pathogenic avian influenza virus of subtype H5N1 isolated from wild birds and mammals in northern Germany

Auteur(s) : WEBER Siegfried; HARDER Timm; STARICK Elke; BEER Martin; WERNER Ortrud; HOFFMANN Bernd; METTENLEITER Thomas C; MUNDT Egbert

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Source : Journal of general virology. 2007; 88 (p. 2) : 554-558

ISSN : 0022-1317

CODEN : JGVIAY

Date de publication : 2007

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Type de document : short-communication

Nombre de références : 1/2 p.

Résumé : Analysis of the full-length sequences of all eight segments of the German wild-bird H5N1 highly pathogenic avian influenza virus index isolate, A/Cygnus cygnus/Germany/R65/2006, and an H5N1 isolate from a cat (A/cat/Germany/R606/2006) obtained during an outbreak in February 2006 revealed a very high similarity between these two sequences. One amino acid substitution in the PA gene, encoding a protein involved in virus RNA replication, and one amino acid substitution in the haemagglutinin (HA) protein were observed. Phylogenetic analyses of the HA and neuraminidase nucleotide sequences showed that avian influenza H5N1 isolates from the Astrakhan region located in southern Russia were the closest relatives. Reassortment events could be excluded in comparison with other 'Qinghai-like' H5N1 viruses. In addition, an H5N1 isolate originating from a single outbreak in poultry in Germany was found to be related closely to the H5N1 viruses circulating at that time in the wild-bird population.

Code(s) de classement : 002A05C10; 002A05C04

Descripteur(s) anglais

Descripteur(s) : Avian influenza virus; Aves; Mammalia; Pathogenicity; Subtype; Germany; Microbiology; Virology; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Vertebrata; Europe; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Aves; Mammalia; Pouvoir pathogene; Soustype; Allemagne; Microbiologie; Virologie; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Vertebrata; Europe; Infection; Virose

Localisation : INIST, Shelf number 13533, INIST No. 354000159743800240

Origine de la notice : INIST

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Adaptation of an H7N7 equine influenza A virus in mice

Titre : Adaptation of an H7N7 equine influenza A virus in mice

Auteur(s) : SHINYA Kyoko; WATANABE Shinji; ITO Toshihiro; KASAI Noriyuki; KAWAOKA Yoshihiro

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ISSN : 0022-1317

CODEN : JGVIAY

Date de publication : 2007

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 3/4 p.

Résumé : Wild waterfowl are a reservoir for influenza A viruses, which can be transmitted from these birds to other animal species. Occasionally, influenza A viruses are transmitted to other animal species from animals other than wild waterfowl, e.g. an equine influenza virus has been transmitted to dogs and caused outbreaks. To understand the molecular mechanism by which influenza A viruses adapt to a new animal species, the molecular changes involved in the adaptation of an H7N7 equine influenza A virus were studied in mice. Mutations in the mouse-adapted virus mapped to one amino acid change in the PA protein, one in PB2 and two in PB1. Of these mutations, the Glu-to-Lys substitution at position 627 of PB2 (PB2-E627K) increased virulence appreciably. To understand the mechanism of this increased virulence, a recombinant virus expressing a reporter green fluorescent protein was constructed, thus enabling the effect of this mutation on viral protein expression to be tested in the context of virus replication in situ. It was found that the PB2-E627K substitution in this equine virus contributed to increased viral protein expression and virus replication in mouse cells and enhanced brain invasiveness in mice. These results demonstrate that the importance of the PB2-E627K substitution for mouse adaptation, which was identified previously in human H5N1 isolates, extends to equine influenza A virus.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Influenza A virus; Mouse; Adaptation; Microbiology; Virology; Equine influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Rodentia; Mammalia; Vertebrata; Veterinary; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Virus grippal A; Souris; Adaptation; Microbiologie; Virologie; Grippe equine

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Rodentia; Mammalia; Vertebrata; Veterinaire; Virose; Infection

Localisation : INIST, Shelf number 13533, INIST No. 354000159743800230

Origine de la notice : INIST

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Amelioration of influenza virus pathogenesis in chickens attributed to the enhanced interferon-inducing capacity of a virus with a truncated NS1 gene

Titre : Amelioration of influenza virus pathogenesis in chickens attributed to the enhanced interferon-inducing capacity of a virus with a truncated NS1 gene

Auteur(s) : CAUTHEN Angela N; SWAYNE David E; SEKELLICK Margaret J; MARCUS Philip I; SUAREZ David L

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Source : Journal of virology. 2007; 81 (4) : 1838-1847

ISSN : 0022-538X

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 61 ref.

Résumé : Avian influenza virus (AIV) A/turkey/Oregon/71-SEPRL (TK/OR/71-SEPRL) (H7N3) encodes a full-length NS1 protein and is a weak inducer of interferon (IFN). A variant, TK/OR/71-deINS1 (H7N3), produces a truncated NS1 protein and is a strong inducer of IFN. These otherwise genetically related variants differ 20-fold in their capacities to induce IFN in primary chicken embryo cells but are similar in their sensitivities to the action of IFN. Furthermore, the weak IFN-inducing strain actively suppresses IFN induction in cells that are otherwise programmed to produce it. These phenotypic differences are attributed to the enhanced IFN-inducing capacity that characterizes type A influenza virus strains that produce defective NS1 protein. The pathogenesis of these two variants was evaluated in 1-day-old and 4-week-old chickens. The cell tropisms of both viruses were similar. However, the lesions in chickens produced by the weak IFN inducer were more severe and differed somewhat in character from those observed for the strong IFN inducer. Differences in lesions included the nature of inflammation, the rate of resolution of the infection, and the extent of viral replication and/or virus dissemination. The amelioration of pathogenesis is attributed to the higher levels of IFN produced by the variant encoding the truncated NS1 protein and the antiviral state subsequently induced by that IFN. The high titer of virus observed in kidney tissue (<similar sign>10⁹ 50% embryo lethal doses/g) from 1-day-old chickens infected intravenously by the weak IFN-inducing strain is attributed to the capacity of chicken kidney cells to activate the hemagglutinin fusion peptide along with their unresponsiveness to inducers of IFN as measured in vitro. Thus, the IFN-inducing capacity of AIV appears to be a significant factor in regulating the pathogenesis, virulence, and viral transmission of AIV in chickens. This suggests that the IFN-inducing and IFN induction suppression phenotypes of AIV should be considered when characterizing strains of influenza virus.

Code(s) de classement : 002A05C10; 002A05C04

Descripteur(s) anglais

Descripteur(s) : Influenzavirus; Chicken; Pathogenesis; Interferon; Gene; Virology

Desc. génériques : Virology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Orthomyxoviridae; Virus; Aves; Vertebrata; Veterinary; Poultry; Farming animal

Descripteur(s) français

Descripteur(s) : Influenzavirus; Poulet; Pathogenie; Interferon; Gene; Virologie

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Orthomyxoviridae; Virus; Aves; Vertebrata; Veterinaire; Volaille; Animal elevage

Localisation : INIST, Shelf number 13592, INIST No. 354000159785480280

Origine de la notice : INIST

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Highly pathogenic avian influenza virus subtype H5N1 in Mute swans in the Czech Republic

Titre : Highly pathogenic avian influenza virus subtype H5N1 in Mute swans in the Czech Republic

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Source : Veterinary microbiology Amsterdam. 2007; 120 (1-2) : 9-16

ISSN : 0378-1135

CODEN : VMICDQ

Date de publication : 2007

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 1 p.

Résumé : In order to determine the actual prevalence of avian influenza viruses (AIV) in wild birds in the Czech Republic extensive surveillance was carried out between January and April 2006. A total of 2101 samples representing 61 bird species were examined for the presence of influenza A by using PCR, sequencing and cultivation on chicken embryos. AIV subtype H5N1 was detected in 12 Mute swans (*Cygnus olor*). The viruses were determined as HPAI (highly pathogenic avian influenza) and the hemagglutinin sequence was closely similar to A/mallard/Italy/835/06 and A/turkey/Turkey/1 194/05. Following the first H5N1 case, about 300 wild birds representing 33 species were collected from the outbreak region and tested for the presence of AIV without any positive result. This is the first report of highly pathogenic avian influenza subtype H5N1 in the Czech Republic. The potential role of swan as an effective vector of avian influenza virus is also discussed.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Avian influenza virus; *Cygnus olor*; Pathogenicity; Subtype; Czech Republic; Microbiology; Veterinary; Influenza A; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Aves; Vertebrata; Europe; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; *Cygnus olor*; Pouvoir pathogène; Soustype; République tchèque; Microbiologie; Vétérinaire; Grippe A; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Aves; Vertebrata; Europe; Infection; Virose

Localisation : INIST, Shelf number 16884, INIST No. 354000145433500020

Origine de la notice : INIST

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Large-scale sequence analysis of avian influenza isolates

Titre : Large-scale sequence analysis of avian influenza isolates

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Source : Science Washington DC. 2006; 311 (5767) : 1576-1580

ISSN : 0036-8075

CODEN : SCIEAS

Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Notes : 1/4 p. ref. et notes

Résumé : The spread of H5N1 avian influenza viruses (AIVs) from China to Europe has raised global concern about their potential to infect humans and cause a pandemic. In spite of their substantial threat to human health, remarkably little AIV whole-genome information is available. We report here a preliminary analysis of the first large-scale sequencing of AIVs, including 2196 AIV genes and 169 complete genomes. We combine this new information with public AIV data to identify new gene alleles, persistent genotypes, compensatory mutations, and a potential virulence determinant.

Code(s) de classement : 002B05C02C; 002A05C05

Descripteur(s) anglais

Descripteur(s) : Large scale; Isolate; Nucleotide sequence; Gene; Allele; Mutation; Virulence; Avian influenza

Desc. génériques : Virology; Infectious diseases; Medical sciences; Genetics; Virology; Microbiology; Biological sciences; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Echelle grande; Isolat; Sequence nucleotide; Gene; Allele; Mutation; Virulence; Grippe aviaire

Desc. génériques : Virologie; Maladies infectieuses; Sciences médicales; Genetique; Virologie; Microbiologie; Sciences biologiques; Infection; Virose

Localisation : INIST, Shelf number 6040, INIST No. 354000153295280140

Origine de la notice : INIST

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Surveillance sanitaire de la faune sauvage en France : Reseau sagir et epidemio-surveillance de la rage des chiropteres; Health monitoring of wildlife in France : Sagir network and epidemiological monitoring of chiroptera rabies

Titre : Surveillance sanitaire de la faune sauvage en France : Reseau sagir et epidemio-surveillance de la rage des chiropteres; Health monitoring of wildlife in France : Sagir network and epidemiological monitoring of chiroptera rabies

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Source : Bulletin de l'Academie veterinaire de France. 2006; 159 (5) : 383-387

Informations congrès : *Les maladies infectieuses. Seances thematiques exceptionnelles, *2006-10-05

ISSN : 0001-4192

CODEN : BAVFAV

Date de publication : 2006

Pays de publication : France

Langue(s) : French

Langue(s) du résumé : English

Type de document : Serial; *Conference-Meeting

Nombre de références : 1/4 p.

Résumé : Deux reseaux de surveillance de la faune sauvage centralises a l' AFSSA-LERRPAS sont presentes. Le reseau SAGIR est un reseau generaliste de surveillance et d' alerte des maladies de la faunesauvage en France. Les donnees recueillies permettent aussi de connaitre le statut potentiel de reservoir ou de vecteur des animaux sauvages vis-a-vis de certains agents pathogenes transmissibles a l' homme ou aux animaux domestiques. L' utilisation de ce reseau comme moyen de surveillance de l' influenza aviaire chez les oiseaux sauvages est detaillee. Le reseau de surveillance de la rage des chauves-souris est consacre a une seule maladie. Le fonctionnement doit prendre en compte le statut protege des especes suivies.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Chiroptera; Rabies virus; France; Microbiology; Veterinary; Rabies

Desc. génériques : Virology; Microbiology; Biological sciences; Mammalia; Vertebrata; Lyssavirus; Rhabdoviridae; Mononegavirales; Virus; Europe; Nervous system diseases; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Chiroptera; Virus rage; France; Microbiologie; Veterinaire; Rage

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Mammalia; Vertebrata; Lyssavirus; Rhabdoviridae; Mononegavirales; Virus; Europe; Systeme nerveux pathologie; Virose; Infection

Localisation : INIST, Shelf number 815, INIST No. 354000159539960040

Origine de la notice : INIST

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Les succes de la profession veterinaire dans la maitrise et l' eradication des zoonoses a reservoir animal; The success of the veterinary profession in controlling and eradicating zoonoses with animal reservoirs

Titre : Les succes de la profession veterinaire dans la maitrise et l' eradication des zoonoses a reservoir animal; The success of the veterinary profession in controlling and eradicating zoonoses with animal reservoirs

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Source : Bulletin de l'Academie veterinaire de France. 2006; 159 (5) : 379-382

Informations congrès : *Les maladies infectieuses. Seances thematiques exceptionnelles, *2006-10-05

ISSN : 0001-4192

CODEN : BAVFAV

Date de publication : 2006

Pays de publication : France

Langue(s) : French

Langue(s) du résumé : English

Type de document : Serial; *Conference-Meeting

Résumé : Si la profession veterinaire reste un acteur important de toute action individuelle ou collective de sante animale, elle est devenue sans conteste un acteur majeur des politiques de sante publique. Des atouts ont permis des succes significatifs : la formation veterinaire integrant les problematiques de sante publique, le maillage veterinaire jumele a une organisation parallele des federations d' eleveurs et de veterinaires, un appui scientifique et technique integre et le developpement de reseaux d' epidemio-surveillance. Ils ont ete mis a l' epreuve et ont pu demontrer leur pertinence, au moins dans deux actions recentes : la lutte contre les encephalopathies spongiformes transmissibles et la prevention de l' influenza aviaire. Des faiblesses sont cependant a surmonter, afin de faire face aux nouveaux enjeux sanitaires que representent l' emergence de maladies inconnues ou la re-emergence de maladies connues : certaines de ces dernieres sont des zoonoses majeures a risque eleve, pouvant etre a l' origine non seulement d' epizooties, mais aussi d' epidemies, voire de pandemies. Une analyse non exhaustive de ces faiblesses est presentee.

Code(s) de classement : 002A05

Descripteur(s) anglais

Descripteur(s) : Veterinary; Reservoir; Microbiology; Zoonosis

Desc. génériques : Microbiology; Biological sciences; Epidemiology

Descripteur(s) français

Descripteur(s) : Veterinaire; Reservoir; Microbiologie; Zoonose

Desc. génériques : Microbiologie; Sciences biologiques; Epidemiologie

Localisation : INIST, Shelf number 815, INIST No. 354000159539960030

Origine de la notice : INIST

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Preventing avian influenza in humans : The role of simple public health interventions

Titre : Preventing avian influenza in humans : The role of simple public health interventions

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Source : Southeast Asian journal of tropical medicine and public health. 2006; 37 (6) : 1229-1236

ISSN : 0125-1562

CODEN : SJTMAK

Date de publication : 2006

Pays de publication : Thailand

Langue(s) : English

Type de document : Serial

Nombre de références : 3/4 p.

Résumé : An influenza pandemic due to influenza virus A H5N1 subtype is considered highly likely. Strategies for prevention and control of a pandemic include actions that need to be taken by the national authorities and communities. The availability of a vaccine and antiviral drugs in sufficient quantities for billions of people in the developing world is doubtful. Simple cost effective public health interventions can significantly reduce the risk of contracting infection. These interventions include precautions that will prevent people from contracting infection from sick or dying poultry and their products, human cases and a contaminated environment. Specific measures are based on principles of cutting short the transmission of infection in humans and inactivating the virus at its source. The paper describes context specific actions that can be implemented in both rural and urban settings by the communities themselves.

Code(s) de classement : 002B01; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Prevention; Human; Public health; Tropical medicine; Avian influenza

Desc. génériques : Medical sciences; Virology; Infectious diseases; Medical sciences; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Prevention; Homme; Santé publique; Médecine tropicale; Grippe aviaire

Desc. génériques : Sciences médicales; Virologie; Maladies infectieuses; Sciences médicales; Infection; Virose

Localisation : INIST, Shelf number 19778, INIST No. 354000145411800280

Origine de la notice : INIST

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Supplementation with active hexose correlated compound increases the innate immune response of young mice to primary influenza infection

Titre : Supplementation with active hexose correlated compound increases the innate immune response of young mice to primary influenza infection

Auteur(s) : RITZ Barry W; NOGUSA Shoko; ACKERMAN Elizabeth A; GARDNER Elizabeth M

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Source : The Journal of nutrition. 2006; 136 (11) : 2868-2873

ISSN : 0022-3166

CODEN : JONUAI

Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 32 ref.

Résumé : The emergence of H5N1 avian influenza and the threat of new or adapted viruses in bioterrorism have created an urgent interest in identifying agents to enhance the immune response to primary virus infection. Active hexose correlated compound (AHCC) is a natural mushroom extract reported to increase natural killer (NK) cell activity, survival, and bacterial clearance in young mice. However, the effects of AHCC on the response to viral infections have not been studied. In this study, young C57BL/6 mice were supplemented with 1 g AHCC/(kg body weight d) for 1 wk prior to and throughout infection with influenza A (H1N1, PR8). Supplementation increased survival, decreased the severity of infection, and shortened recovery time following intranasal infection with flu, as determined by the recovery of body weight and epithelial integrity in the lungs. AHCC increased NK activity in lungs at d 1 ($P < 0.05$) and d 4 ($P < 0.01$) and in the spleen at d 2 postinfection ($P < 0.01$). Supplementation increased the percentage ($P < 0.05$) and number ($P < 0.01$) of NK1.1+ cells in the lung and reduced the infiltration of lymphocytes and macrophages compared with controls ($P < 0.01$). These data suggest that AHCC supplementation boosts NK activity, improves survival, and reduces the severity of influenza infection in young mice. Bolstering innate immunity with dietary bioactives may be one avenue for improving the immune response to primary flu infection.

Code(s) de classement : 002A16E

Descripteur(s) anglais

Descripteur(s) : Supplementation; Hexose; Immune response; Animal; Nutrition; Primary infection; Influenza; Compounds; Mouse

Desc. génériques : Vertebrates physiology; Biological sciences; Viral disease; Infection; Feeding; Rodentia; Mammalia; Vertebrata

Descripteur(s) français

Descripteur(s) : Supplementation; Hexose; Reponse immune; Animal; Nutrition; Primoinfection; Grippe; Compose; Souris

Desc. génériques : Physiologie des vertebres; Sciences biologiques; Virose; Infection; Alimentation; Rodentia; Mammalia; Vertebrata

Localisation : INIST, Shelf number 2042, INIST No. 354000158887880260

Origine de la notice : INIST

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Comparative analytical sensitivities of six rapid influenza A antigen detection test kits for detection of influenza A subtypes H1N1, H3N2 and H5N1

Titre : Comparative analytical sensitivities of six rapid influenza A antigen detection test kits for detection of influenza A subtypes H1N1, H3N2 and H5N1

Auteur(s) : CHAN K H; LAMA S Y; PUTHAVATHANA P; NGUYEN T D; LONG H T; PANG C M; CHANA K M; CHEUNGA C Y; SETOA W H; PEIRIS J S M

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Source : Journal of clinical virology. 2007; 38 (2) : 169-171

ISSN : 1386-6532

Date de publication : 2007

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Type de document : short-communication

Nombre de références : 1/4 p.

Résumé : Background: Rapid and simple methods for diagnosing human influenza A (H5N1) disease urgently needed. The limited data so far suggest that the currently available rapid antigen detection kits have poor clinical sensitivity for diagnosis of human H5N1 disease. Objectives: To compare the analytical sensitivity of six commercially available rapid antigen detection kits for the detection of "human" (subtypes H1N1, H3N2) and "avian" (subtype H5N1) influenza A viruses. Study design: Six commercially available test kits for the detection of influenza A were investigated. Analytic sensitivity for the detection of two contemporary H1N1, two H3N2 and three H5N1 viruses was determined using virus culture as a reference method. Results and conclusions: Each test kit detected the H5N1 virus subtypes as efficiently as they detected conventional human viruses of subtypes H1N1 or H3N2. However, limits of detection of influenza viruses of all subtypes by antigen detection kits were >1000-fold lower than virus isolation. Thus, the reportedly poor clinical sensitivity of these antigen detection kits for diagnosis of patients with H5N1 disease is not due to a difference of sensitivity for detecting avian influenza H5N1 compared to human influenza viruses.

Code(s) de classement : 002A05C10; 002B05C02J

Descripteur(s) anglais

Descripteur(s) : Human; Aves; Sensitivity; Antigen; Detection; Subtype; Microbiology; Virology; Influenza A; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Virology; Infectious diseases; Medical sciences; Vertebrata; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Homme; Aves; Sensibilité; Antigène; Détection; Soustype; Microbiologie; Virologie; Grippe A; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Virologie; Maladies infectieuses; Sciences médicales; Vertebrata; Infection; Virose

Localisation : INIST, Shelf number 26272, INIST No. 354000159828050160

Origine de la notice : INIST

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Design of a single tube RT-PCR assay for the diagnosis of human infection with highly pathogenic influenza A(H5) viruses

Titre : Design of a single tube RT-PCR assay for the diagnosis of human infection with highly pathogenic influenza A(H5) viruses

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Source : Journal of virological methods. 2007; 139 (2) : 220-226

ISSN : 0166-0934

CODEN : JVMEDH

Date de publication : 2007

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 3/4 p.

Résumé : Concerns about emergence of a pandemic strain of influenza have been increasing. The strains of highly pathogenic influenza A(H5N1) currently circulating are considered among the most plausible candidates for giving rise to a pandemic strain. In this study the design and development of a RT-PCR assay specific for these highly pathogenic influenza A(H5) strains is presented. This is achieved in part by the design of a primer targeting the coding region for the protease cleavage site of the hemagglutinin, and another primer derived from a pan-hemagglutinin RT-PCR assay also presented in this study. It is shown that the HPAI A(H5) specific assay amplifies only the nucleic acids of highly pathogenic A(H5), with a high sensitivity.

Code(s) de classement : 002A05C09

Descripteur(s) anglais

Descripteur(s) : Human; Influenza A virus; Reverse transcription polymerase chain reaction; Diagnosis; Pathogenicity; Microbiology; Method; Virology; Influenza; Influenza A; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Homme; Virus grippal A; Reaction chaine polymerase RT; Diagnostic; Pouvoir pathogene; Microbiologie; Methode; Virologie; Grippe; Grippe A; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Virose; Infection

Localisation : INIST, Shelf number 18295, INIST No. 354000145392590130

Origine de la notice : INIST

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The mechanism by which influenza A virus nucleoprotein forms oligomers and binds RNA

Titre : The mechanism by which influenza A virus nucleoprotein forms oligomers and binds RNA

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Source : Nature London. 2006; 444 (7122) : 1078-1082

ISSN : 0028-0836

CODEN : NATUAS

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Type de document : correspondence,-letters

Nombre de références : 30 ref.

Résumé : Influenza A viruses pose a serious threat to world public health, particularly the currently circulating avian H5N1 viruses. The influenza viral nucleoprotein forms the protein scaffold of the helical genomic ribonucleoprotein complexes, and has a critical role in viral RNA replication¹. Here we report a 3.2 Å crystal structure of this nucleoprotein, the overall shape of which resembles a crescent with a head and a body domain, with a protein fold different compared with that of the rhabdovirus nucleoprotein^{2,3}. Oligomerization of the influenza virus nucleoprotein is mediated by a flexible tail loop that is inserted inside a neighbouring molecule. This flexibility in the tail loop enables the nucleoprotein to form loose polymers as well as rigid helices, both of which are important for nucleoprotein functions. Single residue mutations in the tail loop result in the complete loss of nucleoprotein oligomerization. An RNA-binding groove, which is found between the head and body domains at the exterior of the nucleoprotein oligomer, is lined with highly conserved basic residues widely distributed in the primary sequence. The nucleoprotein structure shows that only one of two proposed nuclear localization signals are accessible, and suggests that the body domain of nucleoprotein contains the binding site for the viral polymerase. Our results identify the tail loop binding pocket as a potential target for antiviral development.

Code(s) de classement : 002A03G03

Descripteur(s) anglais

Descripteur(s) : Mechanism; Nucleoprotein; Oligomer; RNA; Crystalline structure; Influenza A virus

Desc. génériques : Biophysics; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Mécanisme; Nucleoprotéine; Oligomère; RNA; Structure cristalline; Virus grippal A

Desc. génériques : Biophysique; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number 142, INIST No. 354000143189770290

Origine de la notice : INIST

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Role of combination antiviral therapy in pandemic influenza

Titre : Role of combination antiviral therapy in pandemic influenza

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Source : BMJ British medical journal International ed. 2007; 334 (7588) : 293-294

ISSN : 0959-8146

Date de publication : 2007

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Résumé : It is impossible to predict which drugs will be effective against a new pandemic strain of influenza. Sotirios Tsiodras and colleagues argue that failure to stockpile both major classes of antiviral drugs could prove costly.

Code(s) de classement : 002B01

Descripteur(s) anglais

Descripteur(s) : Drug combination; Combined treatment; Antiviral; Medicine

Desc. génériques : Medical sciences

Descripteur(s) français

Descripteur(s) : Association medicamenteuse; Traitement associe; Antiviral; Medecine; Pandemie; Grippe pandemique

Desc. génériques : Sciences medicales

Localisation : INIST, Shelf number 5002A, INIST No. 354000159750800150

Origine de la notice : INIST

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Avian influenza, domestic ducks and rice agriculture in Thailand

Titre : Avian influenza, domestic ducks and rice agriculture in Thailand

Auteur(s) : GILBERT Marius; XIANGMING XIAO; CHAITAWEE SUB Prasit; KALPRAVIDH Wantanee; PREMASHTHIRA Sith; BOLES Stephen; SLINGENBERGH Jan

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Source : Agriculture ecosystems and environment. 2007; 119 (3-4) : 409-415

ISSN : 0167-8809

CODEN : AEENDO

Date de publication : 2007

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 1/4 p.

Résumé : Highly pathogenic avian influenza (HPAI) caused by H5N1 viruses has become a global scale problem which first emerged in southern China and from there spread to other countries in Southeast and East Asia, where it was first confirmed in end 2003. In previous work, geospatial analyses demonstrated that free grazing ducks played critical role in the epidemiology of the disease in Thailand in the winter 2004/ 2005, both in terms of HPAI emergence and spread. This study explored the geographic association between free grazing duck census counts and current statistics on the spatial distribution of rice crops in Thailand, in particular the crop calendar of rice production. The analysis was carried out using both district level rice statistics and rice distribution data predicted with the aid of remote sensing, using a rice-detection algorithm. The results indicated a strong association between the number of free grazing ducks and the number of months during which second-crop rice harvest takes place, as well as with the rice crop intensity as predicted by remote sensing. These results confirmed that free grazing duck husbandry was strongly driven by agricultural land use and rice crop intensity, and that this later variable can be readily predicted using remote sensing. Analysis of rice cropping patterns may provide an indication of the location of populations of free grazing ducks in other countries with similar mixed duck and rice production systems and less detailed duck census data. Apart from free ranging ducks and rice cropping, the role of hydrology and seasonality of wetlands and water bodies in the HPAI risk analysis is also discussed in relation to the presumed dry season aggregation of wild waterfowl and aquatic poultry offering much scope for virus transmission.

Code(s) de classement : 002A15D; 002A32C01B1; 002A14A03

Descripteur(s) anglais

Descripteur(s) : Agriculture; Thailand; Pathogenic; Remote sensing; Aves; Oryza

Desc. génériques : Vertebrates zoology; Biological sciences; Ecology; Agriculture; Agronomy; Biological sciences; Ecology; Biological sciences; Asia; Vertebrata; Gramineae; Monocotyledones; Angiospermae; Spermatophyta

Descripteur(s) français

Descripteur(s) : Agriculture; Thaïlande; Pathogène; Teledétection; Aves; Oryza

Desc. génériques : Zoologie des vertèbres; Sciences biologiques; Ecologie; Agriculture; Agronomie; Sciences biologiques; Ecologie; Sciences biologiques; Asie; Vertebrata; Gramineae; Monocotyledones; Angiospermae; Spermatophyta

Localisation : INIST, Shelf number 16535, INIST No. 354000159507110210

Origine de la notice : INIST

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Anti-influenza virus activities of 4-[(1,2-dihydro-2-oxo-3H-indol-3-ylidene)amino]-N-(4,6-dimethyl-2-pyrimidin-2-yl) benzenesulphonamide and its derivatives

Titre : Anti-influenza virus activities of 4-[(1,2-dihydro-2-oxo-3H-indol-3-ylidene)amino]-N-(4,6-dimethyl-2-pyrimidin-2-yl)benzenesulphonamide and its derivatives

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Source : Antiviral chemistry and chemotherapy. 2006; 17 (5) : 269-274

ISSN : 0956-3202

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 27 ref.

Résumé : 4-[(1,2-Dihydro-2-oxo-3H-indol-3-ylidene)amino]-N-(4,6-dimethyl-2-pyrimidinyl)-benzenesulphonamide (SPIII-5H) and related compounds were tested for antiviral activity against influenza A (H1N1, H3N2, and H5N1) and B viruses in Madin Darby canine kidney (MDCK) cell culture. Among the compounds tested, SPIII-5H and four derivatives (5-chloro [SPIII-5Cl], 5-bromo [SPIII-5Br], 5-methyl [SPIII-5Me] and N-acetyl [SPIII-NA]) showed similar antiviral potencies, with only the 5-fluoro (SPIII-5F) derivative being ineffective. Fifty percent effective concentration (EC₅₀) values were determined in cytopathic effect (CPE) inhibition assays quantified by neutral red dye uptake. By this method, the active compounds were inhibitory to the H1N1 strain of influenza A at 2.7-5.2 μ g/ml, to the H3N2 strain of influenza A at 13.8-26.0 μ g/ml, to the H5N1 strain of influenza A at 3.1-6.3 μ g/ml and to influenza B at 7.7-11.5 μ g/ml. Confirmatory virus yield reduction studies against influenza A (H1N1) virus demonstrated antiviral activity (90% inhibition) at concentrations of 2-10 μ g/ml. No cytotoxic effects were evident in actively growing uninfected cells or stationary monolayers at 100 μ g/ml. Potencies of the compounds were similar to those of ribavirin, but much less than those of oseltamivir carboxylate against the various viruses. Time-of-addition studies indicated the compounds inhibited an early step in the virus replication cycle, probably virus adsorption/penetration, and no virucidal activity was evident. The basic molecule is amenable to diverse chemical modifications, which may improve water solubility and antiviral potency.

Code(s) de classement : 002B02S05; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Influenzavirus; Antiviral; Influenza A; Influenza B; Sulfadimidine; In vitro; Antiinfectious

Desc. génériques : Virology; Infectious diseases; Pharmacology; Medical sciences; Virology; Infectious diseases; Medical sciences; Orthomyxoviridae; Virus; Viral disease; Infection; Anticholinesterase agent; Cholinesterase; Carboxylic ester hydrolases; Esterases; Hydrolases; Enzyme; Indole derivatives; Enzyme inhibitor; Sulfanilamide derivatives

Descripteur(s) français

Descripteur(s) : Influenzavirus; Antiviral; Grippe A; Grippe B; Isatine; Sulfadimidine; In vitro; Antiinfectieux; Isatine derive

Desc. génériques : Virologie; Maladies infectieuses; Pharmacologie; Sciences médicales; Virologie; Maladies infectieuses; Sciences médicales; Orthomyxoviridae; Virus; Virose; Infection; Anticholinestérasique; Cholinestérase; Carboxylique ester hydrolases; Esterases; Hydrolases; Enzyme; Indole derive; Inhibiteur enzyme; Sulfamides

Localisation : INIST, Shelf number 22101, INIST No. 354000159494570040

Origine de la notice : INIST

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Glycochimie et therapeutique Les inhibiteurs de neuraminidase face au risque de grippe aviaire; Neuraminidase inhibitors and risk of H5N1 influenza

Titre : Glycochimie et therapeutique Les inhibiteurs de neuraminidase face au risque de grippe aviaire; Neuraminidase inhibitors and risk of H5N1 influenza

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Source : Annales pharmaceutiques francaises. 2007; 65 (1) : 50-57

Informations congrès : *Glycochimie et therapeutique. Seance, *FRA, *2006-01-18

ISSN : 0003-4509

CODEN : APFRAD

Date de publication : 2007

Pays de publication : France

Langue(s) : French

Langue(s) du résumé : English

Type de document : Serial; *Conference-Meeting

Nombre de références : 38 ref.

Résumé : L' oseltamivir et le zanamivir sont de puissants inhibiteurs de la neuraminidase des virus influenza A et B. Leur mecanisme d' action repose sur l' inhibition de la liberation des particules virales. Ils reduisent la severite et la duree des symptomes de la grippe, et peuvent prevenir l' expression clinique de la grippe saisonniere en prophylaxie post-contact. Les deux inhibiteurs de neuraminidase presentent une efficacite similaire; l' oseltamivir est plus facile a administrer, le zanamivir presente un moindre risque d' induction de resistances. Dans l' attente d' un vaccin efficace contre les souches H<sub>5N₁ hautement pathogenes, les inhibiteurs de neuraminidase sont les seuls antiviraux specifiques susceptibles de contenir une eventuelle pandémie causee par des virus de ce type. En effet, bien que leur efficacite therapeutique vis-a-vis des manifestations cliniques de la grippe causee par un virus H<sub>5N₁ puisse etre mise en question, les simulations mathematiques suggerent que la combinaison d' une prophylaxie ciblee par ces antiviraux avec des mesures de quarantaines pourrait contenir a sa source l' emergence d' un nouveau virus. Ainsi, apres des annees d' un succes commercial mediocre lie au moins en partie a la faible intensite des gripes saisonnieres des derniers hivers, l' oseltamivir et le zanamivir sont actuellement accumules par de nombreux pays en prevision de cette eventualite.

Code(s) de classement : 002B02S05; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Treatment; Neuraminidase inhibitor; Prevention; Oseltamivir; Zanamivir; Human; Review; Antiviral; Avian influenza; Pandemic

Desc. génériques : Virology; Infectious diseases; Pharmacology; Medical sciences; Virology; Infectious diseases; Medical sciences; Infection; Viral disease; Exo α sialidase; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Enzyme inhibitor

Descripteur(s) français

Descripteur(s) : Traitement; Inhibiteur neuraminidase; Prevention; Oseltamivir; Zanamivir; Homme; Article synthese; Antiviral; Grippe aviaire; Pandemie

Desc. génériques : Virologie; Maladies infectieuses; Pharmacologie; Sciences medicales; Virologie; Maladies infectieuses; Sciences medicales; Infection; Virose; Exo α sialidase; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Inhibiteur enzyme

Localisation : INIST, Shelf number 700, INIST No. 354000159589530040

Origine de la notice : INIST

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Rapid sequencing of the non-coding regions of influenza A virus

Titre : Rapid sequencing of the non-coding regions of influenza A virus

Auteur(s) : DE WIT Emmie; BESTEBROER Theo M; SPRONKEN Monique I J; RIMMELZWAAN Guus F; OSTERHAUS Albert D M E; FOUCHIER Ron A M

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Source : Journal of virological methods. 2007; 139 (1) : 85-89

ISSN : 0166-0934

CODEN : JVMEDH

Date de publication : 2007

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 15 ref.

Résumé : The non-coding regions (NCRs) of influenza A virus gene segments play a crucial role in the viral replication cycle. Although the NCRs are considered to be conserved, some variation does exist, that affects viral replication. Therefore, a rapid method to sequence the 5' and 3' NCRs was designed. This method is based on ligation of viral RNA, RT reactions and subsequent PCR with primersets consisting of a gene segment specific primer and a primer designed across the junction of the 5' and 3' ends. These PCR fragments can be sequenced directly without the need for cloning PCR fragments first. This method was used to sequence the NCRs of A/Bilthoven/16190/68 (H3N2) and A/Turkey/Turkey/1/05 (H5N1).

Code(s) de classement : 002A05C09

Descripteur(s) anglais

Descripteur(s) : Influenza A virus; Polymerase chain reaction; Microbiology; Method; Virology

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Virus grippal A; Reaction chaine polymerase; Microbiologie; Methode; Virologie

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number 18295, INIST No. 354000145268840120

Origine de la notice : INIST

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H5N1 Oseltamivir-resistance detection by real-time PCR using two high sensitivity labeled TaqMan probes

Titre : H5N1 Oseltamivir-resistance detection by real-time PCR using two high sensitivity labeled TaqMan probes

Auteur(s) : CHUTINIMITKUL Salin; SUWANNAKARN Kamol; CHIEOCHANSIN Thaweesak; LE QUYNH MAI; DAMRONGWATANAPOKIN Sudarat; CHAISINGH Arunee; AMONSIN Alongkorn; LANDT Olfert; SONGSERM Thaweesak; THEAMBOONLERS Apiradee; POOVORAWAN Yong

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Source : Journal of virological methods. 2007; 139 (1) : 44-49

ISSN : 0166-0934

CODEN : JVMEDH

Date de publication : 2007

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 27 ref.

Résumé : A single amino acid substitution, from histidine to tyrosine at position 274 of the neuraminidase gene has converted Oseltamivir sensitive H5N1 influenza A virus into a resistant strain. Currently, Oseltamivir is being stockpiled in many countries potentially affected by the influenza A virus subtype H5N1 epidemic. To identify this change in Oseltamivir-treated patients, a method based on real-time PCR using two labeled TaqMan probes was developed for its rapid detection. In order to validate the method, Oseltamivir specimen from treated (Oseltamivir-resistant strain from a Vietnamese patient, two Oseltamivir-treated tigers) and untreated subjects have been used for this study. The results thus obtained as well as those derived from clone selection and sequencing showed that TaqMan probes could clearly discriminate wild type H274 from the mutant 274Y variant. The sensitivity of this assay was as low as 10 copies/ μ l and allowed the detection of the mutation in a mixture of wild type and mutant. Overall, the assay based on real-time PCR with two labeled TaqMan probes described here should be useful for detecting Oseltamivir-resistant H274Y H5N1 influenza A virus in many species and various sources of specimens with high sensitivity and specificity. Such studies can address potential differences in the diagnostic outcomes between patients who develop detectable Oseltamivir resistance and those who retain only the wild type strain of H5N1.

Code(s) de classement : 002A05C09

Descripteur(s) anglais

Descripteur(s) : Influenza A virus; Resistance; Detection; Real time; Polymerase chain reaction; Sensitivity; Microbiology; Method; Virology; Oseltamivir; Antiviral; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Virus grippal A; Resistance; Detection; Temps reel; Reaction chaine polymerase; Sensibilite; Microbiologie; Methode; Virologie; Oseltamivir; Antiviral; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number 18295, INIST No. 354000145268840070

Origine de la notice : INIST

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Preparing public health nurses for pandemic influenza through distance learning

Titre : Preparing public health nurses for pandemic influenza through distance learning

Auteur(s) : MACARIO Everly; BENTON Lisa D; YUEN Janet; TORRES Mara; MACIAS REYNOLDS Violet; HOLSCLAW Patricia; NAKAHARA Natalie; JONES Marcy Connell

Affiliation(s) : California Distance Learning Health Network, San Diego State University, Graduate School of Public Health, San Diego, California, United States; Bioterrorism Planning and Preparedness Section, Immunization Branch, Richmond, California, United States; California Department of Health Services, Immunization Branch, Richmond, California, United States

Source : Public health nursing Boston Mass. 2007; 24 (1) : 66-72

ISSN : 0737-1209

Date de publication : 2007

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 1/4 p.

Résumé : As a global influenza pandemic appears imminent with the spread of avian influenza, the California Department of Health Services (CDHS) and the California Distance Learning Health Network (CDLHN) presented a live 90-min satellite broadcast and subsequent 2-hr small group problem-solving tabletop exercise to practice interventions needed to minimize the consequences of a pandemic event. Public health nurses (PHNs), managers, and other staff in laboratories, clinical care, veterinary medicine, environmental health, public information and safety, emergency management, and transportation down linked the program, broadcast by satellite from the CDHS Richmond Laboratory Campus, to view on-site locally PHNs represented the professional category with the highest number of participants for those conducting the program outside of California. For those in California, PHNs represented the professional category with the second highest number of participants. Participants and distance-learning facilitators completed a training evaluation survey Continuing education credits were provided by the Centers for Disease Control and Prevention to participants who completed the satellite broadcast evaluation. This distance-learning-by-satellite method of education paired with an activities-based tabletop exercise, and a focus on local rather than State-based responsibility, marks an innovative method of training PHNs and other staff in emergency preparedness response.

Code(s) de classement : 002B30A11; 002B30A05; 002B01

Descripteur(s) anglais

Descripteur(s) : Public health; Nurse; Health staff; Human; Distance; Learning; Education; Teaching; Emergency; Clinical management; Treatment; World; Disease

Desc. génériques : Public health; Medical sciences; Public health; Medical sciences; Medical sciences; Acquisition process

Descripteur(s) français

Descripteur(s) : Sante publique; Infirmier; Personnel sanitaire; Homme; Distance; Apprentissage; Education; Enseignement; Urgence; Conduite a tenir; Traitement; Monde; Maladie; Pandemie; Grippe pandemique

Desc. génériques : Sante publique; Sciences medicales; Sante publique; Sciences medicales; Sciences medicales; Processus acquisition

Localisation : INIST, Shelf number 22029, INIST No. 354000145344820080

Origine de la notice : INIST

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Human H5N1 infections : so many cases. Why so little knowledge ?

Titre : Human H5N1 infections : so many cases. Why so little knowledge ?

Auteur(s) : NICOLL A

Auteur(s) : European Centre for Disease Prevention and Control ECDC Stockholm, Sweden

Source : EUROSURVEILLANCE EUROPEAN COMMUNICABLE DISEASE QUARTERLY. 2006-06; 11 (4-6) : 74-75

ISSN : 1025-496X

Date de publication : 2006

Pays de publication : France

Langue(s) : English

Type de document : Serial

Nombre de références : 10 ref.

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Europe; Survey; Epidemiology; WHO; Emerging disease

Desc. génériques : Public health; Medical sciences

Descripteur(s) français

Descripteur(s) : Europe; Enquete; Epidemiologie; OMS; Maladie emergente

Desc. génériques : Sante publique; Sciences medicales

Localisation : BDSP/InVS

Origine de la notice : BDSP

Surveillance epidemiologique et virologique de la grippe en France : saison 2005-2006. Bilans reguliers de surveillance - Maladies infectieuses

Titre : Surveillance epidemiologique et virologique de la grippe en France : saison 2005-2006. Bilans reguliers de surveillance - Maladies infectieuses

Auteur(s) : VAUX S; MOSNIER A; ALVAREZ FP; AUBIN JT; VALETTE M; LINA B; VAN DER WERF S; BLANCHON T; COHEN JM; BONMARIN I; LEVY BRUHL D

Auteur(s) : Institut de Veille Sanitaire INVS Saint Maurice, France; Institut de Veille Sanitaire INVS Departement des maladies infectieuses Saint Maurice, France; Groupes Regionaux d' Observation de la Grippe Coordination Nationale GROG Paris, France; Reseau Sentinelles Inserm Upmc Umrc S 707 Paris, France; Centre national de reference des virus influenza region nord Paris, France; Centre national de reference des virus influenza region sud Lyon, France

Source : BULLETIN EPIDEMIOLOGIQUE HEBDOMADAIRE. 2006-12-26; (51-52) : 403-406

ISSN : 0245-7466

Date de publication : 2006

Pays de publication : France

Langue(s) : French; English

Type de document : Serial

Nombre de références : 9 ref.

Résumé : Cet article resume l' activite grippale saisonniere en France metropolitaine pour la saison 2005/2006. Methode - L' article s' appuie sur les donnees communautaires fournies par le reseau Sentinelles et le reseau des Grog, les donnees virologiques des Centres nationaux de reference des virus influenza (region nord et region sud), des laboratoires partenaires des Grog et du reseau Renal (Reseau national des laboratoires hospitaliers), les passages aux urgences et les hospitalisations liees a la grippe clinique (reseau Oscour), les donnees de mortalite liee a la grippe clinique (reseau de 22 Ddass) ainsi que sur le signalements de cas groupes d' infections respiratoires aigues en collectivites de personnes agees. Resultats - L' epidemie grippale d' intensite moderee a debute fin janvier et s' est achevee fin mars 2006. Le pic epidemique a ete enregistre en semaines 06-07/2006. Les virus grippaux A et B ont co-circule sur toute la saison et les souches circulantes etaient majoritairement apparentees au lignage B/Victoria et a la souche A/New Caledonia/20/99 (H1N1). La surveillance des hospitalisations pour grippe clinique, des deces lies a la grippe clinique ainsi que des cas groupes survenus en maisons de retraite permettent de conclure a une epidemie moderee et peu severe. Alors que la grippe a virus H5N1 continue a s' etendre chez l' animal depuis 2003 et que le nombre de cas humains augmente, aucun cas humain n' a ete diagnostique en France. (R.A.)

Code(s) de classement : 002B30A11

Descripteur(s) anglais

Descripteur(s) : Influenza; Epidemiology; Sanitary surveillance; Virology; Epidemic; Network; Community; Death; Age; Mortality; Population; High risk; France

Desc. génériques : Public health; Medical sciences; Viral disease; Infection; Europe

Descripteur(s) français

Descripteur(s) : Grippe; Epidemiologie; Surveillance sanitaire; Virologie; Epidemie; Reseau; Communauté; Mort; Age; Mortalité; Population; Risque eleve; France

Desc. génériques : Sante publique; Sciences medicales; Virose; Infection; Europe

Localisation : BDSP/InVS

Origine de la notice : BDSP

L' indemnisation des mesures de police sanitaire. Le cas de la grippe aviaire

Titre : L' indemnisation des mesures de police sanitaire. Le cas de la grippe aviaire

Auteur(s) : HERMON Carole; LARGENTE L

Source : DROIT DE L'ENVIRONNEMENT. 2006-09; (141) : 243-250

ISSN : 1145-2455

Date de publication : 2006

Pays de publication : France

Langue(s) : French

Type de document : Serial

Nombre de références : dissem.

Résumé : Les mesures de police sanitaire adoptées en France pour prévenir les risques liés à la grippe aviaire viennent d' être partiellement levées par l' arrêté du 12 mai 2006. Mais faute d' indemnités rapides, les pertes enregistrées par la filière avicole demeurent. Cet article mène une réflexion sur le principe de précaution et les décisions politiques qui ont eu lieu autour de la "crise de la grippe aviaire" en 2006

Code(s) de classement : 002B30A01

Descripteur(s) anglais

Descripteur(s) : Environment; Regulation; Environmental protection; Influenza; Animal; Rearing; Indemnity; Agriculture; Costs; Epizootics; Precautionary principle

Desc. génériques : Public health; Medical sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Environnement; Réglementation; Protection environnement; Grippe; Animal; Elevage; Indemnité; dédommagement; Agriculture; Cout; Epizootie; Principe précaution

Desc. génériques : Santé publique; Sciences médicales; Virose; Infection

Localisation : BDSP/ENSP, Shelf number 156850

Origine de la notice : BDSP

Colloque sur la grippe aviaire

Titre : Colloque sur la grippe aviaire

Auteur(s) : Academie royale de Belgique, Belgium, org cong.

Source : Bulletin et memoires de l'Academie Royale de Medecine de Belgique. 2006; 161 (5) : 237-272

Informations congrès : *Colloque sur la grippe aviaire, *BEL, *2006-05-05

ISSN : 0377-8231

Date de publication : 2006

Pays de publication : Belgium

Langue(s) : French

Type de document : Serial; *Conference-Meeting

Nombre de références : dissem.

Code(s) de classement : 002B01; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Congress; Medicine; Avian influenza

Desc. génériques : Medical sciences; Virology; Infectious diseases; Medical sciences; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Congres; Medecine; Grippe aviaire

Desc. génériques : Sciences medicales; Virologie; Maladies infectieuses; Sciences medicales; Infection; Virose

Localisation : INIST, Shelf number 961, INIST No. 354000159611300005

Origine de la notice : INIST

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Haemagglutinin mutations responsible for the binding of H5N1 influenza A viruses to human-type receptors

Titre : Haemagglutinin mutations responsible for the binding of H5N1 influenza A viruses to human-type receptors

Auteur(s) : YAMADA Shinya; SUZUKI Yasuo; SUZUKI Takashi; LE Mai Q; NIDOM Chairul A; SAKAI TAGAWA Yuko; MURAMOTO Yukiko; ITO Mutsumi; KISO Maki; HORIMOTO Taisuke; SHINYA Kyoko; SAWADA Toshihiko; KISO Makoto; USUI Taiichi; MURATA Takeomi; YIPU LIN; HAY Alan; HAIRE Lesley F; STEVENS David J; RUSSELL Rupert J; GAMBLIN Steven J; SKEHEL John J; KAWAOKA Yoshihiro

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ISSN : 0028-0836

CODEN : NATUAS

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Type de document : correspondence,-letters

Nombre de références : 26 ref.

Résumé : H5N1 influenza A viruses have spread to numerous countries in Asia, Europe and Africa, infecting not only large numbers of poultry, but also an increasing number of humans, often with lethal effects^{1,2}. Human and avian influenza A viruses differ in their recognition of host cell receptors: the former preferentially recognize receptors with saccharides terminating in sialic acid- α 2,6-galactose (SA α 2,6Gal), whereas the latter prefer those ending in SA α 2,3Gal (refs 3-6). A conversion from SA α 2,3Gal to SA α 2,6Gal recognition is thought to be one of the changes that must occur before avian influenza viruses can replicate efficiently in humans and acquire the potential to cause a pandemic. By identifying mutations in the receptor-binding haemagglutinin (HA) molecule that would enable avian H5N1 viruses to recognize human-type host cell receptors, it may be possible to predict (and thus to increase preparedness for) the emergence of pandemic viruses. Here we show that some H5N1 viruses isolated from humans can bind to both human and avian receptors, in contrast to those isolated from chickens and ducks, which recognize the avian receptors exclusively. Mutations at positions 182 and 192 independently convert the HAs of H5N1 viruses known to recognize the avian receptor to ones that recognize the human receptor. Analysis of the crystal structure of the HA from an H5N1 virus used in our genetic experiments shows that the locations of these amino acids in the HA molecule are compatible with an effect on receptor binding. The amino acid changes that we identify might serve as molecular markers for assessing the pandemic potential of H5N1 field isolates.

Code(s) de classement : 002B05C02C; 002B05C03; 002A05C04

Descripteur(s) anglais

Descripteur(s) : Avian influenza virus; Hemagglutinin; Mutation; Biological receptor; Human; Biological fixation;

Binding site; Replication; Host specificity; Chicken; Aminoacid sequence; Molecular marker; Influenzavirus AH5N1; Avian influenza

Desc. génériques : Virology; Infectious diseases; Medical sciences; Virology; Infectious diseases; Medical sciences; Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Aves; Vertebrata; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Hemagglutinine; Mutation; Recepteur biologique; Homme; Fixation biologique; Site fixation; Replication; Specificite hote; Poulet; Sequence aminoacide; Marqueur moleculaire; Pandemie; Influenzavirus AH5N1; Grippe aviaire

Desc. génériques : Virologie; Maladies infectieuses; Sciences medicales; Virologie; Maladies infectieuses; Sciences medicales; Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Aves; Vertebrata; Infection; Virose

Localisation : INIST, Shelf number 142, INIST No. 354000143060220290

Origine de la notice : INIST

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Genomic analysis of increased host immune and cell death responses induced by 1918 influenza virus

Titre : Genomic analysis of increased host immune and cell death responses induced by 1918 influenza virus

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ISSN : 0028-0836

CODEN : NATUAS

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Type de document : correspondence,-letters

Nombre de références : 26 ref.

Résumé : The influenza pandemic of 1918-19 was responsible for about 50 million deaths worldwide¹. Modern histopathological analysis of autopsy samples from human influenza cases from 1918 revealed significant damage to the lungs with acute, focal bronchitis and alveolitis associated with massive pulmonary oedema, haemorrhage and rapid destruction of the respiratory epithelium². The contribution of the host immune response leading to this severe pathology remains largely unknown. Here we show, in a comprehensive analysis of the global host response induced by the 1918 influenza virus, that mice infected with the reconstructed 1918 influenza virus displayed an increased and accelerated activation of host immune response genes associated with severe pulmonary pathology. We found that mice infected with a virus containing all eight genes from the pandemic virus showed marked activation of pro-inflammatory and cell-death pathways by 24 h after infection that remained unabated until death on day 5. This was in contrast with smaller host immune responses as measured at the genomic level, accompanied by less severe disease pathology and delays in death in mice infected with influenza viruses containing only subsets of 1918 genes. The results indicate a cooperative interaction between the 1918 influenza genes and show that study of the virulence of the 1918 influenza virus requires the use of the fully reconstructed virus. With recent concerns about the introduction of highly pathogenic avian influenza viruses into humans and their potential to cause a worldwide pandemic with disastrous health and economic consequences, a comprehensive understanding of the global host response to the 1918 virus is crucial. Moreover, understanding the contribution of host immune responses to virulent influenza virus infections is an important starting point for the identification of prognostic indicators and the development of novel antiviral therapies.

Code(s) de classement : 002A05C04

Descripteur(s) anglais

Descripteur(s) : Genomics; Cell death; Apoptosis; Host agent relation; Virulent strain; Influenza; Influenzavirus

Desc. génériques : Virology; Microbiology; Biological sciences; Viral disease; Infection; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Genomique; Mort cellulaire; Apoptose; Relation hôte agent; Souche virulente; Grippe; Influenzavirus; Pandémie

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Virose; Infection; Orthomyxoviridae; Virus
Localisation : INIST, Shelf number 142, INIST No. 354000157180680220

Origine de la notice : INIST

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A simple and rapid liquid chromatographic assay for evaluation of potentially counterfeit Tamiflu<Registered>

Titre : A simple and rapid liquid chromatographic assay for evaluation of potentially counterfeit Tamiflu<Registered>

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Source : Journal of pharmaceutical and biomedical analysis. 2006; 42 (4) : 430-433

ISSN : 0731-7085

CODEN : JPBADA

Date de publication : 2006

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 15 ref.

Résumé : A simple and rapid liquid chromatographic assay for the evaluation of potentially counterfeit oseltamivir (Tamiflu<Registered>) has been developed and assessed. The assay uses approximately 1 mg Tamiflu<Registered> powder when used for authentication and content estimate. The procedure was validated using 50 replicates analysed during five independent series with a total R.S.D. of 11.2%. The assay can also be used to monitor the exact content of oseltamivir in Tamiflu<Registered> capsules. One Tamiflu<Registered> capsule was transferred to a 250 mL volumetric flask and 150mL water was added. The flask was placed in an ultrasonic bath at 40 <degree>C for 20 min to dissolve the capsule. The solution was allowed to cool to room temperature before the flask was filled up to the mark (250 mL). A small aliquot was centrifuged and then directly injected into the LC-system for quantification. Oseltamivir was analysed by liquid chromatography with UV detection on a Hypersil Gold column (150mm x 4.6mm) using a mobile phase containing methanol-phosphate buffer (pH 2.5; 0.1 M) (50:50, v/v) at a flow rate of 1.0 mL/min. The assay was implemented for the analysis of Tamiflu<Registered> purchased over the Internet and at local pharmacies in Thailand and Vietnam.

Code(s) de classement : 002B02A02; 002A02

Descripteur(s) anglais

Descripteur(s) : Liquid chromatography; Evaluation; Oseltamivir; Avian influenza virus; HPLC chromatography; Antiviral; Counterfeiting; Avian influenza

Desc. génériques : Pharmacology; Medical sciences; Biochemistry; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Exo <alpha> sialidase; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Enzyme inhibitor; Neuraminidase inhibitor; Infection; Viral disease

Descripteur(s) français

Descripteur(s) : Chromatographie phase liquide; Evaluation; Oseltamivir; Influenzavirus aviaire; Chromatographie HPLC; Antiviral; Contre facon; Grippe aviaire

Desc. génériques : Pharmacologie; Sciences medicales; Biochimie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Exo <alpha> sialidase; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Inhibiteur enzyme; Inhibiteur neuraminidase; Infection; Virose

Localisation : INIST, Shelf number 19962, INIST No. 354000145237330040

Origine de la notice : INIST

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WHO rapid advice guidelines for pharmacological management of sporadic human infection with avian influenza A (H5N1) virus

Titre : WHO rapid advice guidelines for pharmacological management of sporadic human infection with avian influenza A (H5N1) virus

Auteur(s) : SCHUNEMANN Holgsr J; HILL Suzanne R; KAKAD Meetali; BELLAMY Richard; UYEKI Timothy M; HAYDEN Frederick G; YAZDANPANAH Yazdan; BEIGEL John; CHOTPITAYASUNONDH Tawee; DEL MAR Chris; FARRAR Jeremy; HIEN Tran Tinh; OZBAY Bulent; SUGAYA Norio; FUKUDA Keiji; SHINDO Nikki; STOCKMAN Lauren; VIST Gunn E; CROISIER Alice; NAGJDALIYEV Azim; ROTH Cathy; THOMSON Gail; ZUCKER Howard; OXMAN Andrew D

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Source : Lancet Infectious diseases print. 2007; 7 (1) : 21-31

ISSN : 1473-3099

Date de publication : 2007

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 36 ref.

Résumé : Recent spread of avian influenza A (H5N1) virus to poultry and wild birds has increased the threat of human infections with H5N1 virus worldwide. Despite international agreement to stockpile antivirals, evidence-based guidelines for their use do not exist. WHO assembled an international multidisciplinary panel to develop rapid advice for the pharmacological management of human H5N1 virus infection in the current pandemic alert period. A transparent methodological guideline process on the basis of the Grading Recommendations, Assessment, Development and Evaluation (GRADE) approach was used to develop evidence-based guidelines. Our development of specific recommendations for treatment and chemoprophylaxis of sporadic H5N1 infection resulted from the benefits, harms, burden, and cost of interventions in several patient and exposure groups. Overall, the quality of the underlying evidence for all recommendations was rated as very low because it was based on small case series of H5N1 patients, on extrapolation from preclinical studies, and high quality studies of seasonal influenza. A strong recommendation to treat H5N1 patients with oseltamivir was made in part because of the severity of the disease. Similarly, strong recommendations were made to use neuraminidase inhibitors as chemoprophylaxis in high-risk exposure populations. Emergence of other novel influenza A viral subtypes with pandemic potential, or changes in the pathogenicity of H5N1 virus strains, will require an update of these guidelines and WHO will be monitoring this closely.

Code(s) de classement : 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Influenza A; Recommendation; Clinical management; Sporadic; Human; Avian influenza
Desc. génériques : Virology; Infectious diseases; Medical sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Grippe A; Recommandation; Conduite a tenir; Sporadique; Homme; Grippe aviaire
Desc. génériques : Virologie; Maladies infectieuses; Sciences medicales; Virose; Infection

Localisation : INIST, Shelf number 27478, INIST No. 354000159452080010

Origine de la notice : INIST

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Syntheses of triazole-modified zanamivir analogues via click chemistry and anti-AIV activities

Titre : Syntheses of triazole-modified zanamivir analogues via click chemistry and anti-AIV activities

Auteur(s) : JIAN LI; MINGYUE ZHENG; WEI TANG; HE Pei Lan; WEILIANG ZHU; TIANXIAN LI; ZUO Jian Ping; HONG LIU; HUALIANG JIANG

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Source : Bioorganic and medicinal chemistry letters Print. 2006; 16 (19) : 5009-5013

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Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Notes : 3/4 p. ref. et notes

Résumé : Sixteen novel 4-triazole-modified zanamivir (1) analogues were synthesized using the click reactions, and their inhibitory activities against avian influenza virus (AIV, H5N1) were determined. Compound 3b exerts promising inhibitory activity with EC_{50} of 6.4 μ M, which is very close to that of zanamivir (EC_{50} = 2.8 μ M). Molecular modeling provided the information about the binding model between inhibitors and neuraminidase, which are in good agreement with inhibitory activities.

Code(s) de classement : 002B02S05

Descripteur(s) anglais

Descripteur(s) : Chemical synthesis; Triazole derivatives; Zanamivir; In vitro; Avian influenza virus; Molecular model; Modeling; Binding mode; Exo α sialidase; Antiviral; Structure activity relation; Ketoaldonic acid

Desc. génériques : Virology; Infectious diseases; Pharmacology; Medical sciences; Influenzavirus A; Orthomyxoviridae; Virus; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Enzyme inhibitor; Neuraminidase inhibitor

Descripteur(s) français

Descripteur(s) : Synthèse chimique; Triazole derive; Zanamivir; In vitro; Influenzavirus aviaire; Modele moleculaire; Modelisation; Mode liaison; Exo α sialidase; Antiviral; Relation structure activeite; Acide cetoaldonique; Non 2 enonique acide5 acetamido 2,6 anhydro 4 4 1 hydroxypropyl 1,2,3 triazol 1 yl 3,4,5 tridesoxy

Desc. génériques : Virologie; Maladies infectieuses; Pharmacologie; Sciences medicales; Influenzavirus A; Orthomyxoviridae; Virus; O Glycosidases; Glycosidases; Hydrolases; Enzyme; Inhibiteur enzyme; Inhibiteur neuraminidase

Localisation : INIST, Shelf number 22446, INIST No. 354000133563410050

Origine de la notice : INIST

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Estimation of potential global pandemic influenza mortality on the basis of vital registry data from the 1918-20 pandemic : a quantitative analysis. Commentary

Titre : Estimation of potential global pandemic influenza mortality on the basis of vital registry data from the 1918-20 pandemic : a quantitative analysis. Commentary

Auteur(s) : FERGUSON Neil, comment; MURRAY Christopher J L; LOPEZ Alan D; CHIN Brian; FEEHAN Dennis; HILL Kenneth H

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Source : Lancet British edition. 2006; 368 (9554) : 2187-2188,2211-2218 [10 p.]

ISSN : 0140-6736

CODEN : LANCAO

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Type de document : article; comments

Nombre de références : 77 ref.

Résumé : Background The threat of an avian influenza pandemic is causing widespread public concern and health policy response, especially in high-income countries. Our aim was to use high-quality vital registration data gathered during the 1918-20 pandemic to estimate global mortality should such a pandemic occur today. Methods We identified all countries with high-quality vital registration data for the 1918-20 pandemic and used these data to calculate excess mortality. We developed ordinary least squares regression models that related excess mortality to per-head income and absolute latitude and used these models to estimate mortality had there been an influenza pandemic in 2004. Findings Excess mortality data show that, even in 1918-20, population mortality varied over 30-fold across countries. Per-head income explained a large fraction of this variation in mortality. Extrapolation of 1918-20 mortality rates to the worldwide population of 2004 indicates that an estimated 62 million people (10th-90th percentile range 51 million-81 million) would be killed by a similar influenza pandemic; 96% (95% CI 95-98) of these deaths would occur in the developing world. If this mortality were concentrated in a single year, it would increase global mortality by 114%. Interpretation This analysis of the empirical record of the 1918-20 pandemic provides a plausible upper bound on pandemic mortality. Most deaths will occur in poor countries-ie, in societies whose scarce health resources are already stretched by existing health priorities.

Code(s) de classement : 002B01; 002B30A01A; 002B30A11

Descripteur(s) anglais

Descripteur(s) : Estimation; Epidemiology; Mortality; Sanitary surveillance; Quantitative analysis; Medicine; Specific registry

Desc. génériques : Medical sciences; Public health; Medical sciences; Public health; Medical sciences

Descripteur(s) français

Descripteur(s) : Estimation; Epidemiologie; Mortalite; Surveillance sanitaire; Analyse quantitative; Medecine; Pandemie; Grippe pandemique; Grippe espagnole; Registre specialise

Desc. génériques : Sciences medicales; Sante publique; Sciences medicales; Sante publique; Sciences medicales

Localisation : INIST, Shelf number 5004, INIST No. 354000145211900140

Origine de la notice : INIST

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L' evolution du H5N1 suivie a la trace

Titre : L' evolution du H5N1 suivie a la trace

Auteur(s) : PETIT Helene

Source : Biofutur Puteaux. 2006; (268) : 59-62

ISSN : 0294-3506

CODEN : BIOFEM

Date de publication : 2006

Pays de publication : France

Langue(s) : French

Type de document : Serial

Nombre de références : 7 ref.

Résumé : Aujourd' hui, la survenue d' une pandémie de grippe aviaire aurait probablement comme responsable le virus A (H5N1). Et l' espoir de pouvoir desamorcer une situation potentiellement explosive en l' eliminant des élevages de volailles, s' est amenuisée. H5N1 s' est installée. Si aucun virus des sous-types H5 n' a jusqu' a présent circulé dans la population humaine, ils sont cependant imprévisibles, souvent non sélectifs et montrent une grande variabilité génétique.

Code(s) de classement : 002B05C03

Descripteur(s) anglais

Descripteur(s) : Transmission; Poultry; Human; Genetic variability; Influenza; Avian influenza virus; Vaccine; Influenzavirus AH5N1

Desc. génériques : Virology; Infectious diseases; Medical sciences; Viral disease; Infection; Influenzavirus A; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Transmission; Volaille; Homme; Variabilité génétique; Grippe; Influenzavirus aviaire; Vaccin; Influenzavirus AH5N1

Desc. génériques : Virologie; Maladies infectieuses; Sciences médicales; Virose; Infection; Influenzavirus A; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number 19576, INIST No. 354000153088370100

Origine de la notice : INIST

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Pandemic flu: clinical management of patients with an influenza-like illness during an influenza pandemic : Previsional guidelines

Titre : Pandemic flu: clinical management of patients with an influenza-like illness during an influenza pandemic : Previsional guidelines

Auteur(s) : British Infection Society, United Kingdom; British Thoracic Society, London, United Kingdom; Health Protection Agency, London, United Kingdom; Department of Health, London, United Kingdom

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ISSN : 0040-6376

CODEN : THORA7

Date de publication : 2007

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 169 ref.

Code(s) de classement : 002B11

Descripteur(s) anglais

Descripteur(s) : Cardiovascular disease; Respiratory disease

Desc. génériques : Pneumology; Respiratory system; Medical sciences

Descripteur(s) français

Descripteur(s) : Appareil circulatoire pathologie; Appareil respiratoire pathologie

Desc. génériques : Pneumologie; Appareil respiratoire; Sciences médicales

Localisation : INIST, Shelf number 7791, INIST No. 354000145181130000

Origine de la notice : INIST

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Quand le droit a la sante devient collectif : Pandemie grippale

Titre : Quand le droit a la sante devient collectif : Pandemie grippale

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Source : Concours medical Paris. 2006; 128 (39-40) : 1644-1645

ISSN : 0010-5309

CODEN : COMEAO

Date de publication : 2006

Pays de publication : France

Langue(s) : French

Type de document : Serial

Nombre de références : 1 ref.

Code(s) de classement : 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Medicine; Human; Avian influenza

Desc. génériques : Virology; Infectious diseases; Medical sciences

Descripteur(s) français

Descripteur(s) : Medecine; Homme; Droit sante; Grippe aviaire

Desc. génériques : Virologie; Maladies infectieuses; Sciences medicales

Localisation : INIST, Shelf number 10949, INIST No. 354000143162030080

Origine de la notice : INIST

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Pandemie, un revelateur des limites du lien social : Pandemie grippale

Titre : Pandemie, un revelateur des limites du lien social : Pandemie grippale

Auteur(s) : AMEISEN Jean Claude

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Source : Concours medical Paris. 2006; 128 (39-40) : 1642-1644

ISSN : 0010-5309

CODEN : COMEAO

Date de publication : 2006

Pays de publication : France

Langue(s) : French

Type de document : Serial

Code(s) de classement : 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Public health; Human; Social aspect; Avian influenza

Desc. génériques : Virology; Infectious diseases; Medical sciences

Descripteur(s) français

Descripteur(s) : Sante publique; Homme; Aspect social; Pandemie; Grippe aviaire

Desc. génériques : Virologie; Maladies infectieuses; Sciences medicales

Localisation : INIST, Shelf number 10949, INIST No. 354000143162030070

Origine de la notice : INIST

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Priorites de l' acces aux soins et aux ressources rares : Pandemie grippale

Titre : Priorites de l' acces aux soins et aux ressources rares : Pandemie grippale

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ISSN : 0010-5309

CODEN : COMEAO

Date de publication : 2006

Pays de publication : France

Langue(s) : French

Type de document : Serial

Nombre de références : 5 ref.

Code(s) de classement : 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Priority; Care; Resource; Human; Treatment; Strategy; Public health; Avian influenza

Desc. génériques : Virology; Infectious diseases; Medical sciences

Descripteur(s) français

Descripteur(s) : Priorite; Soins; Ressource; Homme; Traitement; Strategie; Sante publique; Grippe aviaire

Desc. génériques : Virologie; Maladies infectieuses; Sciences medicales

Localisation : INIST, Shelf number 10949, INIST No. 354000143162030060

Origine de la notice : INIST

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" la pandémie, c' est la guerre " : Pandémie grippale

Titre : " la pandémie, c' est la guerre " : Pandémie grippale

Auteur(s) : EMMANUELLI Xavier

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Date de publication : 2006

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Langue(s) : French

Type de document : Serial

Code(s) de classement : 002B01; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Public health; Description; Phase; Human; Avian influenza

Desc. génériques : Medical sciences; Virology; Infectious diseases; Medical sciences

Descripteur(s) français

Descripteur(s) : Santé publique; Description; Phase; Homme; Pandémie; Grippe aviaire

Desc. génériques : Sciences médicales; Virologie; Maladies infectieuses; Sciences médicales

Localisation : INIST, Shelf number 10949, INIST No. 354000143162030050

Origine de la notice : INIST

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Inhibition of influenza virus infection by a novel antiviral peptide that targets viral attachment to cells

Titre : Inhibition of influenza virus infection by a novel antiviral peptide that targets viral attachment to cells

Auteur(s) : JONES Jeremy C; TURPIN Elizabeth A; BULTMANN Hermann; BRANDT Curtis R; SCHULTZ CHERRY Stacey

Affiliation(s) : Department of Medical Microbiology and Immunology, University of Wisconsin, Madison, Wisconsin 53706, United States; Department of Ophthalmology and Visual Sciences, University of Wisconsin, Madison, Wisconsin 53706, United States

Source : Journal of virology. 2006; 80 (24) : 11960-11967

ISSN : 0022-538X

Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 35 ref.

Résumé : Influenza A viruses continue to cause widespread morbidity and mortality. There is an added concern that the highly pathogenic H5N1 influenza A viruses, currently found throughout many parts of the world, represent a serious public health threat and may result in a pandemic. Intervention strategies to halt an influenza epidemic or pandemic are a high priority, with an emphasis on vaccines and antiviral drugs. In these studies, we demonstrate that a 20-amino-acid peptide (EB, for entry blocker) derived from the signal sequence of fibroblast growth factor 4 exhibits broad-spectrum antiviral activity against influenza viruses including the H5N1 subtype in vitro. The EB peptide was protective in vivo, even when administered postinfection. Mechanistically, the EB peptide inhibits the attachment to the cellular receptor, preventing infection. Further studies demonstrated that the EB peptide specifically binds to the viral hemagglutinin protein. This novel peptide has potential value as a reagent to study virus attachment and as a future therapeutic.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Influenza A virus; Antiviral; Peptides; Target cell; Virology; Influenza A

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Virus grippal A; Antiviral; Peptide; Cellule cible; Virologie; Grippe A

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Virose; Infection

Localisation : INIST, Shelf number 13592, INIST No. 354000145060010060

Origine de la notice : INIST

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In vivo protective performance of N95 respirator and surgical facemask

Titre : In vivo protective performance of N95 respirator and surgical facemask

Auteur(s) : LI Y; WONG T; CHUNG J; GUO Y P; HU J Y; GUAN Y T; YAO L; SONG Q W; NEWTON E

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Source : American journal of industrial medicine. 2006; 49 (12) : 1056-1065

ISSN : 0271-3586

CODEN : AJIMD8

Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 29 ref.

Résumé : Background The SARS outbreak in 2003 has spawned a major controversy concerning protective performance facemasks for healthcare workers. This study reports a study on in-vivo protective performance of surgical masks and N95 respirators. Methods Typical surgical masks and N95 respirators used in Hong Kong hospitals were tested in comparison with those treated with nano-functional materials (called nano-masks) on various physical properties and in-vivo wear filtration efficiency, as well as usability test in hospitals for surgical masks. Results Tests on physical properties showed that N95 respirators had significantly lower air permeability and water vapor permeability than surgical masks. The in-vivo filtration tests illustrated that N95 respirators filtered out 97% of potassium chloride (KCl) solution, while surgical masks filtered out 95% of KCl solution. Nano-masks show stronger water repellency and antibacterial activities, but no difference in usability, comparing with normal N95 and surgical masks. Conclusions Surgical masks can provide in-vivo filtration protection of 95% filtration efficiency. N95 respirators provide higher in-vivo filtration efficiency of 97% with significant reduction of air permeability and water vapor permeability. Compared to normal surgical masks/respirators, the nano-masks can provide additional protective functions in stopping capillary diffusion and antibacterial activities.

Code(s) de classement : 002B05C02C

Descripteur(s) anglais

Descripteur(s) : In vivo; Prevention; Performance evaluation; Ergonomics; Surgery; Efficiency; Influenza A; Filter; Permeability; Surgical mask; Severe acute respiratory syndrome; Comparative study; China; Human; Nanoparticle; Occupational medicine; Avian influenza

Desc. génériques : Virology; Infectious diseases; Medical sciences; Viral disease; Infection; Asia; Respiratory disease; Lung disease

Descripteur(s) français

Descripteur(s) : In vivo; Prevention; Evaluation performance; Ergonomie; Chirurgie; Efficacite; Grippe A; Filtre; Permeabilite; Masque chirurgical; Syndrome respiratoire aigu severe; Etude comparative; Chine; Homme; Nanoparticule; Medecine du travail; Virus H5N1; Grippe aviaire

Desc. génériques : Virologie; Maladies infectieuses; Sciences medicales; Virose; Infection; Asie; Appareil respiratoire pathologie; Poumon pathologie

Localisation : INIST, Shelf number 18343, INIST No. 354000159059540090

Origine de la notice : INIST

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Using data on social contacts to estimate age-specific transmission parameters for respiratory-spread infectious agents. Commentary

Titre : Using data on social contacts to estimate age-specific transmission parameters for respiratory-spread infectious agents. Commentary

Auteur(s) : WALLINGA Jacco; TEUNIS Peter; KRETZSCHMAR Mirjam; HALLORAN M Elizabeth, comment

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Source : American journal of epidemiology. 2006; 164 (10) : 936-946

ISSN : 0002-9262

CODEN : AJEPAS

Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Type de document : article; comments

Nombre de références : 40 ref.

Résumé : The estimation of transmission parameters has been problematic for diseases that rely predominantly on transmission of pathogens from person to person through small infectious droplets. Age-specific transmission parameters determine how such respiratory agents will spread among different age groups in a human population. Estimating the values of these parameters is essential in planning an effective response to potentially devastating pandemics of smallpox or influenza and in designing control strategies for diseases such as measles or mumps. In this study, the authors estimated age-specific transmission parameters by augmenting infectious disease data with auxiliary data on self-reported numbers of conversational partners per person. They show that models that use transmission parameters based on these self-reported social contacts are better able to capture the observed patterns of infection of endemically circulating mumps, as well as observed patterns of spread of pandemic influenza. The estimated age-specific transmission parameters suggested that school-aged children and young adults will experience the highest incidence of infection and will contribute most to further spread of infections during the initial phase of an emerging respiratory-spread epidemic in a completely susceptible population. These findings have important implications for controlling future outbreaks of novel respiratory-spread infectious agents.

Code(s) de classement : 002B30A01A2; 002B30A11; 002B01

Descripteur(s) anglais

Descripteur(s) : Infection; Social aspect; Public health; Contact; Estimation; Age; Transmission from man to man; Respiratory system; Respiratory tract; Disease; Epidemic; Influenza; Human; Models; Mumps; Statistics

Desc. génériques : Public health; Medical sciences; Public health; Medical sciences; Medical sciences; Viral disease

Descripteur(s) français

Descripteur(s) : Infection; Aspect social; Santé publique; Contact; Estimation; Age; Transmission homme homme; Appareil respiratoire; Voie respiratoire; Maladie; Epidémie; Grippe; Homme; Modèle; Oreillons; Statistique

Desc. génériques : Santé publique; Sciences médicales; Santé publique; Sciences médicales; Sciences médicales; Virose

Localisation : INIST, Shelf number 663, INIST No. 354000159035950020

Origine de la notice : INIST

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Epilogue : Preparing for an influenza pandemic in Australia. Preparing for an influenza pandemic

Titre : Epilogue : Preparing for an influenza pandemic in Australia. Preparing for an influenza pandemic

Auteur(s) : EMERY Sean; DWYER Dominic E; MCKINNON Moira; DWYER Dominic E, ed; EMERY Sean, ed; MCKINNON Moira, ed

Affiliation(s) : National Centre in HIV Epidemiology and Clinical Research University of New South Wales, Sydney, NSW, Australia; Centre for Infectious Diseases and Microbiology Laboratory Services Institute of Clinical Pathology and Medical Research Westmead Hospital, Sydney, NSW, Australia; Centre for Infectious Diseases and Microbiology Laboratory Services, Institute of Clinical Pathology and Medical Research, Westmead Hospital, Sydney, NSW, Australia; Therapeutic and Vaccine Research Program, National Centre in HIV Epidemiology and Clinical Research, University of New South Wales, Sydney, NSW, Australia; Department of Health and Ageing, Canberra, ACT, Australia

Source : Medical journal of Australia. 2006; 185 (10; SUP) : p. S80

ISSN : 0025-729X

CODEN : MJAUAJ

Date de publication : 2006

Pays de publication : Australia

Langue(s) : English

Type de document : Serial

Code(s) de classement : 002B01

Descripteur(s) anglais

Descripteur(s) : Australia

Desc. génériques : Medical sciences; Oceania

Descripteur(s) français

Descripteur(s) : Australie; Grippe pandémique; Pandémie

Desc. génériques : Sciences médicales; Océanie

Localisation : INIST, Shelf number 3557, INIST No. 354000159040070130

Origine de la notice : INIST

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Urgent strategic research into influenza to inform health policy and protect the public. Preparing for an influenza pandemic

Titre : Urgent strategic research into influenza to inform health policy and protect the public. Preparing for an influenza pandemic

Auteur(s) : SORRELL Tania C; LONSDALE Carey; DWYER Dominic E, ed; EMERY Sean, ed; MCKINNON Moira, ed

Affiliation(s) : Centre for Infectious Diseases and Microbiology, University of Sydney, Sydney, NSW, Australia; National Health and Medical Research Council, Canberra, ACT, Australia; Centre for Infectious Diseases and Microbiology Laboratory Services, Institute of Clinical Pathology and Medical Research, Westmead Hospital, Sydney, NSW, Australia; Therapeutic and Vaccine Research Program, National Centre in HIV Epidemiology and Clinical Research, University of New South Wales, Sydney, NSW, Australia; Department of Health and Ageing, Canberra, ACT, Australia

Source : Medical journal of Australia. 2006; 185 (10; SUP) : S77-S79

ISSN : 0025-729X

CODEN : MJAUAJ

Date de publication : 2006

Pays de publication : Australia

Langue(s) : English

Type de document : Serial

Nombre de références : 6 ref.

Résumé : <Mathematical point> The Australian management plan for pandemic influenza (2005) highlighted a number of areas where more information may yield better plans for protecting Australia. <Mathematical point> In 2005, the National Health and Medical Research Council (NHMRC) developed a special "urgent research" funding program to meet those information needs as quickly as possible. <Mathematical point> The funding program resulted in grants totalling \$6.5 million being awarded for 33 research projects, in five broad areas: > Detection and identification of the virus; > Vaccine development and evaluation; > Antiviral medication use and effectiveness; > Public health interventions; and > Understanding behavioural responses to achieve effective communication and staged implementation of public health strategies. <Mathematical point> Outcomes of the program will be evaluated formally in 2007.

Code(s) de classement : 002B01; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Scientific research; Influenza; Health policy; Public health; Political aspect; Protection

Desc. génériques : Medical sciences; Virology; Infectious diseases; Medical sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Recherche scientifique; Grippe; Politique sanitaire; Santé publique; Aspect politique; Protection

Desc. génériques : Sciences médicales; Virologie; Maladies infectieuses; Sciences médicales; Virose; Infection

Localisation : INIST, Shelf number 3557, INIST No. 354000159040070120

Origine de la notice : INIST

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Ethical issues in pandemic planning. Preparing for an influenza pandemic

Titre : Ethical issues in pandemic planning. Preparing for an influenza pandemic

Auteur(s) : TORDA Adrienne; DWYER Dominic E, ed; EMERY Sean, ed; MCKINNON Moira, ed

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Source : Medical journal of Australia. 2006; 185 (10; SUP) : S73-S76

ISSN : 0025-729X

CODEN : MJAUAJ

Date de publication : 2006

Pays de publication : Australia

Langue(s) : English

Type de document : Serial

Nombre de références : 15 ref.

Résumé : <Mathematical point> In the event of an influenza pandemic, many ethical issues will arise in terms of health risks, resource allocation, and management decisions. <Mathematical point> Planning decisions may be controversial, such as rationing of antivirals, resource allocation (including hospital beds and vaccinations), occupational risk, rostering of staff, responsibilities of health care workers, quarantine measures, and governance issues. <Mathematical point> A clear ethical framework is needed to enable understanding of the decision-making process and optimise acceptance of decisions by health care workers and other members of an affected community. <Mathematical point> Planning decisions need to start being examined now, and will require input from a broad group of experts: health care providers, infrastructure managers, lawyers, ethicists, public health physicians, and community members. The process will need to be open, honest and dynamic.

Code(s) de classement : 002B01; 002B31

Descripteur(s) anglais

Descripteur(s) : Ethics; Public health

Desc. génériques : Medical sciences; Ethics; Medical sciences

Descripteur(s) français

Descripteur(s) : Ethique; Sante publique; Plan pandemie

Desc. génériques : Sciences medicales; Ethique; Sciences medicales

Localisation : INIST, Shelf number 3557, INIST No. 354000159040070110

Origine de la notice : INIST

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Pandemic influenza and critical infrastructure dependencies : Possible impact on hospitals. Preparing for an influenza pandemic

Titre : Pandemic influenza and critical infrastructure dependencies : Possible impact on hospitals. Preparing for an influenza pandemic

Auteur(s) : ITZWERTH Ralf L; MACINTYRE C Raina; SHAH Smita; PLANT Aileen J; DWYER Dominic E, ed; EMERY Sean, ed; MCKINNON Moira, ed

Affiliation(s) : National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases, The Children's Hospital at Westmead and the University of Sydney, Sydney, NSW, Australia; Discipline of General Practice, University of Sydney, Sydney, NSW, Australia; Centre for Infectious Diseases and Microbiology Laboratory Services, Institute of Clinical Pathology and Medical Research, Westmead Hospital, Sydney, NSW, Australia; Therapeutic and Vaccine Research Program, National Centre in HIV Epidemiology and Clinical Research, University of New South Wales, Sydney, NSW, Australia; Department of Health and Ageing, Canberra, ACT, Australia

Source : Medical journal of Australia. 2006; 185 (10; SUP) : S70-S72

ISSN : 0025-729X

CODEN : MJAUAJ

Date de publication : 2006

Pays de publication : Australia

Langue(s) : English

Type de document : Serial

Nombre de références : 16 ref.

Résumé : <Mathematical point> Hospitals will be particularly challenged when pandemic influenza spreads. <Mathematical point> Within the health sector in general, existing pandemic plans focus on health interventions to control outbreaks. <Mathematical point> The critical relationship between the health sector and other sectors is not well understood and addressed. Hospitals depend on critical infrastructure external to the organisation itself. <Mathematical point> Existing plans do not adequately consider the complexity and interdependency of systems upon which hospitals rely. The failure of one such system can trigger a failure of another, causing cascading breakdowns. <Mathematical point> Health is only one of the many systems that struggle at maximum capacity during "normal " times, as current business models operate with no or minimal "excess" staff and have become irreducible operations. This makes interconnected systems highly vulnerable to acute disruptions, such as a pandemic. <Mathematical point> Companies use continuity plans and highly regulated business continuity management to overcome process interruptions. This methodology can be applied to hospitals to minimise the impact of a pandemic.

Code(s) de classement : 002B01

Descripteur(s) anglais

Descripteur(s) : Infrastructure; Hospital

Desc. génériques : Medical sciences

Descripteur(s) français

Descripteur(s) : Infrastructure; Hopital; Pandemie; Grippe pandemique

Desc. génériques : Sciences medicales

Localisation : INIST, Shelf number 3557, INIST No. 354000159040070100

Origine de la notice : INIST

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General practice : Professional preparation for a pandemic. Preparing for an influenza pandemic

Titre : General practice : Professional preparation for a pandemic. Preparing for an influenza pandemic

Auteur(s) : COLLINS Nick; LITT John; MOORE Michael; WINZENBERG Tania; SHAW Kelly; DWYER Dominic E, ed; EMERY Sean, ed; MCKINNON Moira, ed

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ISSN : 0025-729X

CODEN : MJAUAJ

Date de publication : 2006

Pays de publication : Australia

Langue(s) : English

Type de document : Serial

Nombre de références : 22 ref.

Résumé : <Mathematical point> General practice will play a key role in both prevention and management of an influenza pandemic. Australian pandemic plans acknowledge a role for general practice, but there are few published data addressing the issues that general practitioners and their practices will face in dealing with such a crisis. <Mathematical point> The outcome will revolve around preparation in three key areas: > Definition of the role of general practice within a broad primary care pandemic response, and adequate preparation within general practices so they can play that role well. Planning exercises and forums must include GPs, and rehearsals must include practical experience for general practices and their staff. Local Divisions of General Practice and GP practices can advocate for this, can define their role, and can prepare by using pandemic preparedness checklists. > Definition and enactment of communication strategies to facilitate transfer of useful clinical and administrative data from practices and rapid dissemination of information into the community via general practice. > Resource provision, which should be centrally funded but locally distributed, with personal protective equipment, vaccines and antivirals readily available for distribution. Resources must include support for human resource management to ensure appropriate health care professionals reach areas of workforce demand. Administrative, clinical and financial resources must be available to train GPs and practices in pandemic awareness and response.

Code(s) de classement : 002B01; 002B30A11

Descripteur(s) anglais

Descripteur(s) : General practice; Professional practice; Preparation; Public health; World

Desc. génériques : Medical sciences; Public health; Medical sciences

Descripteur(s) français

Descripteur(s) : Medecine generale; Pratique professionnelle; Preparation; Sante publique; Monde; Pandemie

Desc. génériques : Sciences medicales; Sante publique; Sciences medicales

Localisation : INIST, Shelf number 3557, INIST No. 354000159040070090

Origine de la notice : INIST

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Pandemic vaccines : Promises and pitfalls. Preparing for an influenza pandemic

Titre : Pandemic vaccines : Promises and pitfalls. Preparing for an influenza pandemic

Auteur(s) : BOOY Robert; BROWN Lorena E; GROHMANN Gary S; MACINTYRE C Raina; DWYER Dominic E, ed; EMERY Sean, ed; MCKINNON Moira, ed

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Source : Medical journal of Australia. 2006; 185 (10; SUP) : S62-S65

ISSN : 0025-729X

CODEN : MJAUAJ

Date de publication : 2006

Pays de publication : Australia

Langue(s) : English

Type de document : Serial

Nombre de références : 16 ref.

Résumé : <Mathematical point> Prototype vaccines against influenza A/H5N1 may be poorly immunogenic, and two or more doses may be required to induce levels of neutralising antibody that are deemed to be protective. The actual levels of antibody required to protect against a highly pathogenic virus that potentially can spread beyond the large airways is unknown. <Mathematical point> The global capacity for vaccine manufacture in eggs or tissue culture is considerable, but the number of doses that can theoretically be produced in a pandemic context will only be sufficient for a small fraction of the world's population, even less if a high antigen content is required. <Mathematical point> The safety of new pandemic vaccines should be addressed in an internationally coordinated way. <Mathematical point> Steps are underway through the Therapeutic Goods Administration to evaluate mock-up vaccines now, so that the time to registration of a new product can be minimised. <Mathematical point> It will be 3-6 months into the pandemic before an effective vaccine becomes available, so other control measures will be important in the early stages of a pandemic. <Mathematical point> The primary goal of a pandemic influenza vaccine must be to prevent death, and not necessarily to prevent infection.

Code(s) de classement : 002B01; 002B30A11

Descripteur(s) anglais

Descripteur(s) : Public health; World; Prevention; Vaccine; Immunoprophylaxis

Desc. génériques : Medical sciences; Public health; Medical sciences

Descripteur(s) français

Descripteur(s) : Sante publique; Monde; Prevention; Vaccin; Immunoprophylaxie; Pandemie

Desc. génériques : Sciences medicales; Sante publique; Sciences medicales

Localisation : INIST, Shelf number 3557, INIST No. 354000159040070080

Origine de la notice : INIST

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Antivirals in the management of an influenza pandemic. Preparing for an influenza pandemic

Titre : Antivirals in the management of an influenza pandemic. Preparing for an influenza pandemic

Auteur(s) : HARROD Mary Ellen; EMERY Sean; DWYER Dominic E; DWYER Dominic E, ed; EMERY Sean, ed; MCKINNON Moira, ed

Affiliation(s) : National Centre in HIV Epidemiology and Clinical Research, University of New South Wales, Sydney, NSW, Australia; Centre for Infectious Diseases and Microbiology, Institute of Clinical Pathology and Medical Research, Westmead Hospital, Sydney, NSW, Australia; Centre for Infectious Diseases and Microbiology Laboratory Services, Institute of Clinical Pathology and Medical Research, Westmead Hospital, Sydney, NSW, Australia; Therapeutic and Vaccine Research Program, National Centre in HIV Epidemiology and Clinical Research, University of New South Wales, Sydney, NSW, Australia; Department of Health and Ageing, Canberra, ACT, Australia

Source : Medical journal of Australia. 2006; 185 (10; SUP) : S58-S61

ISSN : 0025-729X

CODEN : MJAUAJ

Date de publication : 2006

Pays de publication : Australia

Langue(s) : English

Type de document : Serial

Nombre de références : 20 ref.

Résumé : <Mathematical point> The Australian Government has an extensive stockpile of antivirals (neuraminidase inhibitors) to be used if an influenza pandemic occurs. <Mathematical point> Neuraminidase inhibitors reduce the duration of the symptoms of seasonal influenza infection by 1 day on average, when used as treatment within 48 hours of disease onset. <Mathematical point> Neuraminidase inhibitors prevent infection in up to 74% of people when administered as prophylaxis. <Mathematical point> Resistance of seasonal influenza viruses to neuraminidase inhibitors is low. <Mathematical point> The safety and efficacy (including resistance) of neuraminidase inhibitors against pandemic influenza or the virus of current concern in pandemic planning, influenza A/H5N1, is not known, and further research is needed.

Code(s) de classement : 002B01; 002B02S05

Descripteur(s) anglais

Descripteur(s) : Antiviral; Treatment; Clinical management

Desc. génériques : Medical sciences; Virology; Infectious diseases; Pharmacology; Medical sciences

Descripteur(s) français

Descripteur(s) : Antiviral; Traitement; Conduite a tenir; Grippe pandemique; Pandemie

Desc. génériques : Sciences medicales; Virologie; Maladies infectieuses; Pharmacologie; Sciences medicales

Localisation : INIST, Shelf number 3557, INIST No. 354000159040070070

Origine de la notice : INIST

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Infection control and pandemic influenza. Preparing for an influenza pandemic

Titre : Infection control and pandemic influenza. Preparing for an influenza pandemic

Auteur(s) : COLLIGNON Peter J; CARNIE John A; DWYER Dominic E, ed; EMERY Sean, ed; MCKINNON Moira, ed

Affiliation(s) : Infectious Disease Unit and Microbiology Department, Canberra Hospital, Canberra, ACT, Australia; Centre for Infectious Diseases and Microbiology Laboratory Services, Institute of Clinical Pathology and Medical Research, Westmead Hospital, Sydney, NSW, Australia; Therapeutic and Vaccine Research Program, National Centre in HIV Epidemiology and Clinical Research, University of New South Wales, Sydney, NSW, Australia; Department of Health and Ageing, Canberra, ACT, Australia

Source : Medical journal of Australia. 2006; 185 (10; SUP) : S54-S57

ISSN : 0025-729X

CODEN : MJAUAJ

Date de publication : 2006

Pays de publication : Australia

Langue(s) : English

Type de document : Serial

Nombre de références : 18 ref.

Résumé : <Mathematical point> If an influenza pandemic occurs, the spread of the virus should be reduced for as long as possible while an effective vaccine is produced. <Mathematical point> Influenza spreads mainly by large respiratory droplets ($> 5\mu\text{m}$) depositing onto the mucosal surfaces of the eye, mouth or respiratory tract. Hands are another major means for spread, and are frequently contaminated by droplets. <Mathematical point> The most effective way to reduce the spread of the virus is with good infection control practices and social distancing. <Mathematical point> Infection control practices include the use of personal protective equipment (PPE), hand hygiene, and respiratory hygiene and cough etiquette. Infected people should be isolated and spatial separation observed in common areas where infected people may be present. Any practices that create aerosols (eg, nebulisation) should be avoided, unless performed with appropriate precautions, especially with all people in the room wearing appropriate PPE. <Mathematical point> Now is the time to re-examine all our current practices so that we are better prepared, well practised and have good infection control practices in place for all transmissible respiratory infections.

Code(s) de classement : 002B01

Descripteur(s) anglais

Descripteur(s) : Check

Desc. génériques : Medical sciences

Descripteur(s) français

Descripteur(s) : Controle; Pandemie; Grippe pandemique

Desc. génériques : Sciences medicales

Localisation : INIST, Shelf number 3557, INIST No. 354000159040070060

Origine de la notice : INIST

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Laboratory diagnosis of human seasonal and pandemic influenza virus infection. Preparing for an influenza pandemic

Titre : Laboratory diagnosis of human seasonal and pandemic influenza virus infection. Preparing for an influenza pandemic

Auteur(s) : DWYER Dominic E; SMITH David W; CATTON Michael G; BARR Lan G; DWYER Dominic E, ed; EMERY Sean, ed; MCKINNON Moira, ed

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Source : Medical journal of Australia. 2006; 185 (10; SUP) : S48-S53

ISSN : 0025-729X

CODEN : MJAUAJ

Date de publication : 2006

Pays de publication : Australia

Langue(s) : English

Type de document : Serial

Nombre de références : 25 ref.

Résumé : <Mathematical point> Laboratory diagnosis is important to distinguish influenza from other respiratory virus infections. It will be especially important in detecting the first cases of pandemic influenza. <Mathematical point> Good quality respiratory tract sampling is needed to maximise diagnostic yield in influenza infection. <Mathematical point> In the appropriate clinical setting, pandemic strain-specific nucleic acid testing is the initial test of choice for suspected pandemic influenza. It is more sensitive than virus isolation, and more sensitive and specific than serology, immunofluorescence and other antigen detection methods. <Mathematical point> Virus isolation is needed to monitor new influenza strains and for vaccine development. Analysis of influenza isolates is undertaken by the World Health Organization Global Influenza Surveillance Network. <Mathematical point> Monitoring for antiviral resistance will be needed with widespread use of neuraminidase inhibitors for treatment and prophylaxis during a pandemic.

Code(s) de classement : 002B01

Descripteur(s) anglais

Descripteur(s) : Infection; Laboratory; Diagnosis; Human; Seasonal variation

Desc. génériques : Medical sciences

Descripteur(s) français

Descripteur(s) : Infection; Laboratoire; Diagnostic; Homme; Variation saisonniere; Grippe pandemique

Desc. génériques : Sciences medicales

Localisation : INIST, Shelf number 3557, INIST No. 354000159040070050

Origine de la notice : INIST

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Pandemic influenza : Clinical issues. Preparing for an influenza pandemic

Titre : Pandemic influenza : Clinical issues. Preparing for an influenza pandemic

Auteur(s) : BOYD Mark; CLEZY Kate; LINDLEY Richard; PEARCE Rod; DWYER Dominic E, ed; EMERY Sean, ed; MCKINNON Moira, ed

Affiliation(s) : Head<sup>2 Richard Lindley, MB BS, Australia; Moran Foundation for Older Australians Professor of Geriatric Medicine<sup>3 Rod Pearce, MB BS, Australia; General Practitioner<sup>4 1 Department of Microbiology and Infectious Diseases, Flinders Medical Centre, Adelaide, SA. 2, Australia; Department of Infectious Diseases, Prince of Wales Hospital, Sydney, NSW. 3, Canada; Department of Geriatric Medicine, Discipline of Medicine, Westmead Hospital, University of Sydney, Sydney, NSW. 4, Canada; Athelstone and Beulah Park Medical Clinic, Adelaide, SA, Australia; Centre for Infectious Diseases and Microbiology Laboratory Services, Institute of Clinical Pathology and Medical Research, Westmead Hospital, Sydney, NSW, Australia; Therapeutic and Vaccine Research Program, National Centre in HIV Epidemiology and Clinical Research, University of New South Wales, Sydney, NSW, Australia; Department of Health and Ageing, Canberra, ACT, Australia

Source : Medical journal of Australia. 2006; 185 (10; SUP) : S44-S47

ISSN : 0025-729X

CODEN : MJAUAJ

Date de publication : 2006

Pays de publication : Australia

Langue(s) : English

Type de document : Serial

Nombre de références : 31 ref.

Résumé : <Mathematical point> Influenza is an acute febrile illness caused by influenza A or B viruses. It occurs mainly in winter in temperate climates, and throughout the year in tropical Australia. It is highly contagious and of considerable public health concern because of the rapidity with which epidemics evolve and the associated morbidity and mortality. <Mathematical point> Most influenza illnesses resolve over about 1 week without specific medical intervention. <Mathematical point> People at particular risk for complicated infection are those > 65 or < 5 years old, those with chronic medical comorbidities, residents of chronic care facilities (including nursing homes), and women in the second or third trimester of pregnancy. <Mathematical point> Complicated influenza infection most commonly manifests as primary viral pneumonia, combined viral and bacterial pneumonia, and secondary bacterial pneumonia. <Mathematical point> Rare but serious complications of influenza include central nervous system involvement (eg, encephalitis, transverse myelitis, aseptic meningitis, and Guillain-Barre syndrome). <Mathematical point> The recent emergence of avian influenza A/H5N1 and confirmation of sporadic cases of human H5N1 infection have heightened concern about an impending human influenza pandemic, either from a human form of H5N1 or a primary new human influenza strain. <Mathematical point> H5N1 infection in humans has been associated with severe illness and a > 50% mortality rate, with high mortality in people aged 10-39 years.

Code(s) de classement : 002B01

Desc. génériques : Medical sciences

Descripteur(s) français

Descripteur(s) : Pandemie; Grippe pandemique

Desc. génériques : Sciences medicales

Localisation : INIST, Shelf number 3557, INIST No. 354000159040070040

Origine de la notice : INIST

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The influenza viruses. Preparing for an influenza pandemic

Titre : The influenza viruses. Preparing for an influenza pandemic

Auteur(s) : HAMPSON Alan W; MACKENZIE John S; DWYER Dominic E, ed; EMERY Sean, ed; MCKINNON Moira, ed

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Source : Medical journal of Australia. 2006; 185 (10; SUP) : S39-S43

ISSN : 0025-729X

CODEN : MJAUAJ

Date de publication : 2006

Pays de publication : Australia

Langue(s) : English

Type de document : Serial

Nombre de références : 44 ref.

Résumé : <Mathematical point> Human epidemic influenza is caused by influenza type A and B viruses, which continually undergo antigenic change in their surface antigens, haemagglutinin (H) and neuraminidase (N). <Mathematical point> Influenza epidemics are the consequence of small, ongoing antigenic changes known as "antigenic drift", which occurs in both influenza types. <Mathematical point> Pandemic influenza occurs at irregular and unpredictable intervals, and is the result of a major antigenic change known as "antigenic shift", which occurs only in influenza A. <Mathematical point> Aquatic birds are the evolutionary hosts of influenza viruses; they harbour many distinct forms or subtypes of influenza A, which are usually present as harmless gut infections. <Mathematical point> Antigenic shift involves the evolution of a new human influenza A virus through the acquisition of a new haemagglutinin gene encoding a different subtype from an avian influenza, or by the adaptation of an avian virus, causing it to become transmissible between humans. <Mathematical point> Two subtypes of avian influenza, H5 and H7, can cause severe infections when introduced into domestic poultry. Recently, influenza A/H5N1 viruses have caused widespread outbreaks, starting in Asia and spreading widely to other regions. <Mathematical point> Avian influenza viruses do not readily infect humans. However, during the past 3 years, more than 250 cases of H5N1 infection of humans have occurred, with associated mortality approaching 60%. It is feared that a new pandemic of human influenza may emerge from this.

Code(s) de classement : 002B01; 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Influenza

Desc. génériques : Medical sciences; Virology; Infectious diseases; Medical sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Grippe

Desc. génériques : Sciences médicales; Virologie; Maladies infectieuses; Sciences médicales; Virose; Infection

Localisation : INIST, Shelf number 3557, INIST No. 354000159040070030

Origine de la notice : INIST

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The Australian response : Pandemic influenza preparedness. Preparing for an influenza pandemic

Titre : The Australian response : Pandemic influenza preparedness. Preparing for an influenza pandemic

Auteur(s) : HORVATH John S; MCKINNON Moira; ROBERTS Leslee; DWYER Dominic E, ed; EMERY Sean, ed; MCKINNON Moira, ed

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Source : Medical journal of Australia. 2006; 185 (10; SUP) : S35-S38

ISSN : 0025-729X

CODEN : MJAUAJ

Date de publication : 2006

Pays de publication : Australia

Langue(s) : English

Type de document : Serial

Nombre de références : 11 ref.

Résumé : <Mathematical point> Australia's preparedness for a potential influenza pandemic involves many players, from individual health carers to interdepartmental government committees. It embraces a wide number of strategies from the management of the disease to facilitating business continuity. <Mathematical point> The key strategy underlying Australia's planned response is an intensive effort to reduce transmission of the virus. This includes actions to reduce the likelihood of entry of the virus into the country and to contain outbreaks when they occur. Containment will provide time to allow production of a matched vaccine. <Mathematical point> The health strategies are outlined in the Australian health management plan for pandemic influenza. The plan is accompanied by technical annexes setting out key considerations and guidelines in the areas of clinical management and infection control. <Mathematical point> National plans present overall strategies and guidance, but the operational details can only be determined by individual states and territories, regions, and the services themselves. <Mathematical point> Primary health care practices will be on the frontline of an influenza pandemic. Every practice needs a plan that defines the roles of staff, incorporates infection control and staff protection measures, and considers business continuity. Most importantly, a practice needs to know how to implement that plan.

Code(s) de classement : 002B01

Descripteur(s) anglais

Descripteur(s) : Australia; Preparation; Dragging; Teaching

Desc. génériques : Medical sciences; Oceania

Descripteur(s) français

Descripteur(s) : Australie; Preparation; Entrainement; Enseignement; Pandemie; Grippe pandemique; Etat de preparation

Desc. génériques : Sciences medicales; Oceanie

Localisation : INIST, Shelf number 3557, INIST No. 354000159040070020

Origine de la notice : INIST

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Clinical scenarios. Preparing for an influenza pandemic

Titre : Clinical scenarios. Preparing for an influenza pandemic

Auteur(s) : MCKINNON Moira; DWYER Dominic E, ed; EMERY Sean, ed; MCKINNON Moira, ed

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Source : Medical journal of Australia. 2006; 185 (10; SUP) : S32-S34

ISSN : 0025-729X

CODEN : MJAUAJ

Date de publication : 2006

Pays de publication : Australia

Langue(s) : English

Type de document : Serial

Nombre de références : 9 ref.

Code(s) de classement : 002B01

Desc. génériques : Medical sciences

Desc. génériques : Sciences médicales

Localisation : INIST, Shelf number 3557, INIST No. 354000159040070010

Origine de la notice : INIST

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Preparing for an influenza pandemic

Titre : Preparing for an influenza pandemic

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ISSN : 0025-729X

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Date de publication : 2006

Pays de publication : Australia

Langue(s) : English

Type de document : Serial

Nombre de références : dissem.

Code(s) de classement : 002B01

Desc. génériques : Medical sciences

Desc. génériques : Sciences médicales

Localisation : INIST, Shelf number 3557, INIST No. 354000159040070000

Origine de la notice : INIST

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Reverse transcriptase-polymerase chain reaction-enzyme linked immunosorbent assay for rapid detection of avian influenza virus subtype H9N2

Titre : Reverse transcriptase-polymerase chain reaction-enzyme linked immunosorbent assay for rapid detection of avian influenza virus subtype H9N2

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Source : Archives of virology. 2006; 151 (12) : 2447-2459

ISSN : 0304-8608

Date de publication : 2006

Pays de publication : Austria

Langue(s) : English

Type de document : Serial

Nombre de références : 24 ref.

Résumé : The performance of a simplified nucleoprotein (NP) and hemagglutinin-subtype-9 (H9) based reverse transcriptase-polymerase chain reaction-enzyme linked immunosorbent assay (RT-PCR-ELISA) for the detection of avian influenza virus (AIV) subtype H9N2 was compared to the standard virus isolation method and serology testing using hemagglutination (HA) and hemagglutination inhibition (HI) tests. The H9-based RT-PCR-ELISA was 100% sensitive when compared to virus isolation method in detecting H9N2 from experimentally infected specific-pathogen-free (SPF) chickens. The NP- and H9-based RT-PCR-ELISA have a detection limit similar to the virus isolation method in detecting serially diluted tracheal swab samples obtained from chickens inoculated with H9N2. Both RT-PCR-ELISAs were also ten times more sensitive than agarose gel electrophoresis for the detection of PCR products. The result of this study demonstrate that the developed RT-PCR-ELISA is a simple and sensitive assay for the detection of type A influenza virus, particularly AIV subtype H9N2, in chickens.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Avian influenza virus; RNA directed DNA polymerase; Polymerase chain reaction; ELISA assay; Detection; Subtype

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Nucleotidyltransferases; Transferases; Enzyme

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; RNA directed DNA polymerase; Reaction chaine polymerase; Technique ELISA; Detection; Soustype

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Nucleotidyltransferases; Transferases; Enzyme

Localisation : INIST, Shelf number 6355, INIST No. 354000159067620100

Origine de la notice : INIST

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Intranasal administration of adjuvant-combined recombinant influenza virus HA vaccine protects mice from the lethal H5N1 virus infection

Titre : Intranasal administration of adjuvant-combined recombinant influenza virus HA vaccine protects mice from the lethal H5N1 virus infection

Auteur(s) : ASAHI OZAKI Yasuko; ITAMURA Shigeyuki; ICHINOHE Takeshi; STRONG Peter; TAMURA Shin Ichi; TAKAHASHI Hidehiro; SAWA Hirofumi; MORIYAMA Masami; TASHIRO Masato; SATA Tetsutaro; KURATA Takeshi; HASEGAWA Hideki

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Source : Microbes and infection. 2006; 8 (12-13) : 2706-2714

ISSN : 1286-4579

Date de publication : 2006

Pays de publication : France

Langue(s) : English

Type de document : Serial

Nombre de références : 31 ref.

Résumé : Attenuated recombinant H5N1 influenza virus was constructed to develop a safe H5N1 influenza vaccine. The immunogenicity and protective effect of the vaccine prepared from haemagglutinin-modified recombinant H5N1 influenza virus was evaluated in mice intranasally co-administered with cholera toxin B subunit containing a trace amount of holotoxin (CTB*), synthetic double-stranded RNA, poly (I:C) or chitin microparticles (CMP) as adjuvants. Intranasal administration of recombinant H5 HA split vaccine with CTB* or poly(I:C) and/or CMP elicited an immunological response with both anti-H5 HA IgA in the nasal wash and anti-H5 HA IgG antibody in the serum, and showed a protective against lethal H5N1 A/Hong Kong/483/97 (HK483) infection. We also demonstrated that intranasal co-administration of antigen with both poly (I:C) and CMP enhanced the expression of Toll-like receptor (TLR) 3, TLR7 in the spleen. These results indicate that poly (I:C) and CMP are highly effective as mucosal adjuvants for use with the nasal H5N1 vaccine.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Influenzavirus; Mouse; Intranasal administration; Immunological adjuvant; Mixed vaccine; Recombinant virus; Double stranded RNA; IgA; Viral disease; Avian influenza; Toll like receptor

Desc. génériques : Virology; Microbiology; Biological sciences; Orthomyxoviridae; Virus; Rodentia; Mammalia; Vertebrata; Infection

Descripteur(s) français

Descripteur(s) : Influenzavirus; Souris; Voie intranasale; Adjuvant immunologique; Vaccin associe; Virus recombinant; RNA bicatenaire; IgA; Virose; Grippe aviaire; Recepteur type Toll

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Orthomyxoviridae; Virus; Rodentia; Mammalia; Vertebrata; Infection

Localisation : INIST, Shelf number 26816, INIST No. 354000159040800050

Origine de la notice : INIST

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H9N2 influenza viruses isolated from poultry in Korean live bird markets continuously evolve and cause the severe clinical signs in layers

Titre : H9N2 influenza viruses isolated from poultry in Korean live bird markets continuously evolve and cause the severe clinical signs in layers

Auteur(s) : KIM Jin A; SUNG HWAN CHO; HYUN SOO KIM; SANG HEUI SEO

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Source : Veterinary microbiology Amsterdam. 2006; 118 (3-4) : 169-176

ISSN : 0378-1135

CODEN : VMICDQ

Date de publication : 2006

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 1 p.1/4

Résumé : H9N2 influenza viruses are endemic in many Asian countries. We demonstrated that H9N2 influenza viruses isolated from poultry in Korean live bird markets are genetically changing and could cause the clinical signs in layers. Genetic analysis showed that Korean avian H9N2 influenza viruses are distinct from H9N2 influenza viruses circulating in poultry in China and Hong Kong. When we infected layers with H9N2 isolates, layers showed about 30% mortality and the reduction of egg productions. Considering that H9N2 influenza virus is one of potential pandemic candidates, the continuous surveillance is needed to monitor avian H9N2 influenza viruses for the poultry industry and humans.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Aves; Avian influenza virus; Chicken; Poultry; Severe; Microbiology; Veterinary; Influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Vertebrata; Influenzavirus A; Orthomyxoviridae; Virus; Farming animal; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Aves; Influenzavirus aviaire; Poulet; Volaille; Grave; Microbiologie; Veterinaire; Grippe

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Vertebrata; Influenzavirus A; Orthomyxoviridae; Virus; Animal élevage; Virose; Infection

Localisation : INIST, Shelf number 16884, INIST No. 354000159023240020

Origine de la notice : INIST

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Comparison of avian and human influenza A viruses reveals a mutational bias on the viral genomes

Titre : Comparison of avian and human influenza A viruses reveals a mutational bias on the viral genomes

Auteur(s) : RABADAN Raul; LEVINE Arnold J; ROBINS Harlan

Affiliation(s) : Institute for Advanced Study, Einstein Dr, Princeton, New Jersey 08540, United States; Computational Biology Group, Fred Hutchinson Cancer Research Center, 1100 Fairview Ave. N, Seattle, Washington 98109, United States

Source : Journal of virology. 2006; 80 (23) : 11887-11891

ISSN : 0022-538X

Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 7 ref.

Résumé : In the last few years, the genomic sequence data for thousands of influenza A virus strains, including the 1918 pandemic strain, and hundreds of isolates of the avian influenza virus H5N1, which is causing an increasing number of human fatalities, have become publicly available. This large quantity of sequence data allows us to do comparative genomics with the human and avian versions of the virus. We find that the nucleotide compositions of influenza A viruses infecting the two hosts are sufficiently different that we can determine the host at almost 100% accuracy. This assignment works at the segment level, which allows us to construct the reassortment history of individual segments within each strain. We suggest that the different nucleotide compositions can be explained by a host-dependent mutation bias. To support this idea, we estimate the fixation rates for the different polymerase segments and the ratios of synonymous to nonsynonymous changes. Additionally, we provide evidence supporting the hypothesis that the H1N1 influenza virus entered the human population just prior to the 1918 outbreak, with an earliest bound of 1910.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Avian influenzavirus; Human; Mutation; Genome; Virology

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Homme; Mutation; Genome; Virologie

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number 13592, INIST No. 354000143135230440

Origine de la notice : INIST

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Characterization of an influenza A H5N2 reassortant as a candidate for live-attenuated and inactivated vaccines against highly pathogenic H5N1 viruses with pandemic potential

Titre : Characterization of an influenza A H5N2 reassortant as a candidate for live-attenuated and inactivated vaccines against highly pathogenic H5N1 viruses with pandemic potential

Auteur(s) : DESHEVA J A; LU X H; REKSTIN A R; RUDENKO L G; SWAYNE D E; COX N J; KATZ J M; KLIMOV A I

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Source : Vaccine . 2006; 24 (47-48) : 6859-6866

ISSN : 0264-410X

CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 40 ref.

Résumé : We generated a high-growth 7:1 reassortant (Len17/H5) that contained the hemagglutinin (HA) gene from non-pathogenic A/Duck/Potsdam/1402-6/86 (H5N2) virus and other genes from the cold-adapted (ca) attenuated A/Leningrad/134/17/57 (H2H2) strain. Len17/H5 demonstrated an attenuated phenotype in mice and did not infect chickens. Mice administered Len17/H5 either as a live-attenuated intranasal vaccine or as an inactivated intramuscular vaccine were substantially protected from lethal challenge with highly pathogenic A/Hong Kong/483/97 (H5N1) virus and were protected from pulmonary infection with antigenically distinct A/Hong Kong/213/2003 (H5N1) virus. The cross-protective effect correlated with the levels of virus-specific mucosal IgA and/or serum IgG antibodies. Our results suggest a new strategy of using classical genetic reassortment between a high-growth ca H2N2 strain and antigenically related non-pathogenic avian viruses to prepare live-attenuated and inactivated vaccines for influenza pandemic. Published by Elsevier Ltd.

Code(s) de classement : 002A05F04

Descripteur(s) anglais

Descripteur(s) : Attenuated strain; Vaccine; Pathogenicity; Animal model; Influenza A; Genetic reassortment; Avian influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Souche atténuée; Vaccin; Pouvoir pathogène; Modèle animal; Grippe A; Reassortiment génétique; Grippe aviaire

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Virose; Infection

Localisation : INIST, Shelf number 20289, INIST No. 354000159014900070

Origine de la notice : INIST

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Herd protection against influenza

Titre : Herd protection against influenza

Auteur(s) : GLEZEN W Paul

Affiliation(s) : MVM Department, Baylor College of Medicine, One Baylor Plaza, MS:BCM-280, Houston, TX 77030, United States

Source : Journal of clinical virology. 2006; 37 (4) : 237-243

ISSN : 1386-6532

Date de publication : 2006

Pays de publication : Netherlands

Langue(s) : English

Type de document : Serial

Nombre de références : 1 p.1/4

Résumé : Mortality and hospitalization rates due to influenza have risen despite increasing vaccine coverage for the most vulnerable population; however, those most vulnerable to complications and death are the least likely to respond to the vaccine. New strategies for influenza control are needed and indirect effectiveness (herd protection) has been demonstrated for several currently used vaccines - rubella, H. influenzae type b, pneumococcus varicella and hepatitis A. The Japanese schoolchildren program provided proof of concept of indirect effectiveness of influenza vaccine. The Central Texas field trial has demonstrated significant herd protection of adults utilizing the live, attenuated influenza vaccine (LAIV) to children. Immunization of <20% of children at the intervention site resulted in an 8-18% reduction of medically attended acute respiratory illness in adults compared to rates in the comparison sites. LAIV given by nasal spray is efficacious against matched and poorly matched prevalent strains, easy to administer and readily accepted by children for annual immunization. School-based clinics could provide a platform for rapid deployment of vaccine accessible to all segments of the population. This strategy could be critical for control of pandemic influenza.

Code(s) de classement : 002A05C10; 002B05C02J; 002A05C07

Descripteur(s) anglais

Descripteur(s) : Vaccination; School age; Attenuated strain; Vaccine; Microbiology; Virology; Influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Virology; Infectious diseases; Medical sciences; Immunology; Pharmacology; Virology; Microbiology; Biological sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Vaccination; Age scolaire; Souche atténuee; Vaccin; Microbiologie; Virologie; Grippe

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Virologie; Maladies infectieuses; Sciences médicales; Immunologie; Pharmacologie; Virologie; Microbiologie; Sciences biologiques; Virose; Infection

Localisation : INIST, Shelf number 26272, INIST No. 354000159013750010

Origine de la notice : INIST

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Isolation of avian influenza viruses from two different transhemispheric migratory shorebird species in Australia

Titre : Isolation of avian influenza viruses from two different transhemispheric migratory shorebird species in Australia

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Pays de publication : Austria

Langue(s) : English

Type de document : Serial

Nombre de références : 24 ref.

Résumé : Shorebirds on their southerly migration from Siberia to Australia, may pass through Asian regions currently experiencing outbreaks of highly pathogenic H5N1 influenza. To test for the presence of avian influenza viruses in migratory shorebirds arriving in Australia during spring 2004, 173 cloacal swabs were collected from six species. Ten swabs were positive for influenza A, with H4N8 viruses detected in five red-necked stints and H1N9 viruses detected in five sharp-tailed sandpipers. No H5N1 viruses were detected. All isolated viruses were non-pathogenic in domestic chickens. These results further demonstrate the potential for migratory shorebirds to carry and potentially spread influenza viruses.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Avian influenzavirus; Isolation; Australia

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Oceania

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Isolement; Australie

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Oceanie

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Seasonal and pandemic influenza : Recommendations for preparedness in the united states. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Titre : Seasonal and pandemic influenza : Recommendations for preparedness in the united states. Seasonal and pandemic influenza: at the crossroads, a global opportunity

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CODEN : JIDIAQ

Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 5 ref.

Résumé : There is a continued need to improve the state of preparedness for a potential influenza pandemic in the United States despite the publication of a pandemic influenza plan by the Department of Health and Human Services. Of particular importance are the sense of urgency for a coordinated response plan, an allocation of adequate funds to deal with this issue, and the need for a national leader to coordinate the development and execution of a national plan, including its relationship to the control of seasonal influenza. In addition, an infrastructure needs to be established in the United States to enable the rapid development and large-scale production of a safe and effective vaccine for new influenza strains; methods to treat influenza pneumonia need to be evaluated; a coordinated public health response needs to be defined; a nationally developed blueprint to deal with logistics of pandemic prevention is required; and there is a need to establish reliable communication systems on a national and local basis, to provide accurate information to the lay public, health care workers, and the agricultural sector.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : United States; Microbiology; Infection; Influenza

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences; North America; America; Viral disease

Descripteur(s) français

Descripteur(s) : Etats Unis; Microbiologie; Infection; Grippe

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales; Amérique du Nord; Amérique; Virose

Localisation : INIST, Shelf number 2052, INIST No. 354000158817340120

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Universal influenza vaccination in the United States : Are we ready? Report of a meeting. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Titre : Universal influenza vaccination in the United States : Are we ready? Report of a meeting. Seasonal and pandemic influenza: at the crossroads, a global opportunity

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CODEN : JIDIAQ

Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 46 ref.

Résumé : Universal influenza vaccination has been proposed as one strategy to improve vaccination coverage and disease prevention. In October 2005, influenza and vaccination experts, public health practitioners, representatives from medical professional societies, influenza vaccine manufacturers, and managed care organizations met to assess whether current data were sufficient to support an expansion of universal influenza vaccination and to define information gaps and potential barriers to implementation. Presenters at the meeting documented the substantial burden of influenza disease among all age groups, the major role of children in transmission, and the effectiveness of vaccine, especially in healthy children and adults. Observational studies and a mathematical model suggested that indirect protection, or "herd immunity," resulting from vaccination of school-age children would substantially reduce the incidence of disease in other age groups. Economic analyses generally showed that vaccination of healthy children and adults is cost-effective and is sensitive to vaccine cost, population group, and season. Influenza vaccination received annually over several years is safe and effective, but data on long-term use are limited. Challenges to expanded recommendations include maintenance of the vaccine supply, implementation of a feasible and effective strategy for vaccine delivery, the burden on the public health infrastructure, public acceptability, and financing. Overall, meeting attendees favored incremental expansion of recommendations, potentially toward universal influenza vaccination. They preferred to expand recommendations among children first, because children have a higher risk of illness, compared with healthy adults; because there is greater feasibility of implementation of the recommendations among children; and because of the potential for herd immunity decreasing morbidity and mortality among adults.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Vaccination; United States; Microbiology; Infection; Influenza

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences; North America; America; Viral disease

Descripteur(s) français

Descripteur(s) : Vaccination; Etats Unis; Microbiologie; Infection; Grippe

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales; Amérique du Nord; Amérique; Virose

Localisation : INIST, Shelf number 2052, INIST No. 354000158817340110

Origine de la notice : INIST

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Avian influenza : An agricultural perspective. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Titre : Avian influenza : An agricultural perspective. Seasonal and pandemic influenza: at the crossroads, a global opportunity

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Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 65 ref.

Résumé : Recent outbreaks of infection with highly pathogenic H5N1 strains of avian influenza virus in poultry in Asia, Africa, Europe, and the Middle East have raised concern over the potential emergence of a pandemic strain that can easily infect humans and cause serious morbidity and mortality. To prevent and control a national outbreak, the US Department of Agriculture (USDA) conducts measures based on the ecology of avian influenza viruses. To prevent an outbreak in the United States, the USDA conducts surveillance of bird populations, restrictions on bird importation, educational outreach, and regulation of agricultural practices, in collaboration with local, state, and federal organizations. To manage an outbreak, the USDA has in place a well-established emergency management system for optimizing efforts. The USDA also collaborates with international organizations for disease prevention and control in other countries.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Microbiology; Infection; Avian influenza

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences

Descripteur(s) français

Descripteur(s) : Microbiologie; Infection; Grippe aviaire

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales

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Prevention and treatment of influenza in high-risk groups : Children, pregnant women, immunocompromised hosts, and nursing home residents. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Titre : Prevention and treatment of influenza in high-risk groups : Children, pregnant women, immunocompromised hosts, and nursing home residents. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Auteur(s) : WHITLEY Richard J; MONTO Arnold S; WHITLEY Richard J, ed; MONTO Arnold S, ed; BARTLETT John, ed; HAYDEN Frederick G, ed; TAPPER Michael, ed; PAVIA Andrew T, ed

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Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 26 ref.

Résumé : The pediatric population experiences preventable hospitalizations and serves as a reservoir for influenza and its transmission to other children as well as adults. As a consequence, the Advisory Committee on Immunization Practices has recommended initiating influenza immunization of children as young as 6 months of age through 23 months of age and, recently, up to 5 years of age. However, immunization of older children has not yet become a priority of the US Public Health Service. As a consequence, the importance of antiviral agents, particularly neuraminidase (NA) inhibitors, cannot be overemphasized. From an epidemiological perspective, influenza resulted in higher childhood mortality than did Bordetella pertussis infection in 2003-2004. During that season, 153 children died of influenza, and two-thirds were <5 years of age. Importantly, nearly 50% of these children were previously healthy, with no underlying illness. Currently, 2 NA inhibitors are approved for the treatment of influenza in children. Zanamivir is approved for children >7 years of age, and oseltamivir is approved for children >1 year of age. Arguably, the younger children are at particular risk for influenza complications and hospitalization. In placebo-controlled studies in children >1 year of age, oseltamivir therapy accelerated resolution of clinical illness and defervescence and decreased both the incidence of otitis media and the concomitant use of antibiotics. However, oseltamivir is not currently approved for children <1 year of age. Three clinical toxicology studies identified neurotoxicity in newborn rats administered this medication. In these preclinical toxicology studies, the dose of oseltamivir exceeded that which would be used in humans. In addition, the metabolism of oseltamivir is different in rats than in humans. A key component of influenza therapy is the possibility for development of resistance. Although in studies performed in North America, resistance was not a frequent event, it has been documented in Japanese children treated with this medication; the adequacy of the dose used has been questioned. Children represent only one unique study population among others. Individuals who are at increased risk for influenza infection include the elderly, the immunocompromised, and pregnant women. Collectively, antiviral medications must be evaluated in populations in which they have not yet been assessed. The development of additional antiviral drugs is an important recommendation for the future, so that antiviral resistance can

be circumvented. Similarly, availability of drugs for children <1 year of age is mandatory.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Human; Prevention; Treatment; Child; Female; Microbiology; Infection; Influenza; Immune deficiency

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences; Immunopathology; Viral disease

Descripteur(s) français

Descripteur(s) : Homme; Prevention; Traitement; Enfant; Femelle; Microbiologie; Infection; Grippe; Immunodeficit

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales; Immunopathologie; Virose

Localisation : INIST, Shelf number 2052, INIST No. 354000158817340090

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Lessons learned from reconstructing the 1918 influenza pandemic. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Titre : Lessons learned from reconstructing the 1918 influenza pandemic. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Auteur(s) : GARCIA SASTRE Adolfo; WHITLEY Richard J; WHITLEY Richard J, ed; MONTO Arnold S, ed; BARTLETT John, ed; HAYDEN Frederick G, ed; TAPPER Michael, ed; PAVIA Andrew T, ed

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Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 50 ref.

Résumé : The "Spanish influenza" pandemic of 1918 was the most devastating influenza epidemic reported in history and killed >30 million people worldwide. The factors contributing to the severe pathogenicity of this influenza virus are of great interest, because avian influenza viruses circulating today pose the threat of a new pandemic if they develop sustained human-to-human transmissibility. Recent characterization of the 1918 virus has illuminated which determinants may be the cause of virulence. Here, we wish to shed light on what has been learned to date about the 1918 virus with regard to pathogenicity and transmissibility, to supplement our understanding of the determinants of human virulence and transmission of pandemic influenza viruses. Monitoring the sequences of avian influenza viruses for genetic changes and diversity may help us to predict the risks that these viruses pose of causing a new pandemic.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Microbiology; Infection; Influenza

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences; Viral disease

Descripteur(s) français

Descripteur(s) : Microbiologie; Infection; Grippe

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales; Virose

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Antiviral management of seasonal and pandemic influenza. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Titre : Antiviral management of seasonal and pandemic influenza. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Auteur(s) : HAYDEN Frederick G; PAVIA Andrew T; WHITLEY Richard J, ed; MONTO Arnold S, ed; BARTLETT John, ed; HAYDEN Frederick G, ed; TAPPER Michael, ed; PAVIA Andrew T, ed

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Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 57 ref.

Résumé : The goals of antiviral treatment for influenza are to decrease symptoms and functional disability and, more important, to decrease associated complications, hospitalizations, and mortality. Four drugs have been approved for treatment of and prophylaxis against influenza in the United States, but they are underutilized. The M2 ion channel inhibitors amantadine and rimantadine are effective for prophylaxis, and they decrease the duration of symptoms if they are used for early treatment of influenza A. The rapid emergence of resistance during therapy and, recently, the circulation of resistant H3N2 viruses in the community have decreased the usefulness of these M2 ion channel inhibitors. Early therapy with neuraminidase (NA) inhibitors, either oseltamivir or zanamivir, reduces the duration of symptoms, the duration of disability, and the risk of lower respiratory tract complications. Oseltamivir has been shown to decrease antibiotic use, the number of hospitalizations, and, probably, the risk of death after influenza. NA inhibitors might provide substantial benefits in the treatment of pandemic influenza, with reductions in the numbers of hospitalizations and deaths occurring if such treatment (1) is made available in sufficient time, through rapid distribution, and (2) is available in sufficient quantities as a result of stockpiling. Both of the aforementioned NA inhibitors are highly effective for prophylaxis. Geographically targeted mass chemoprophylaxis might contain the spread of a pandemic virus, but multiple hurdles to successful implementation exist. Resistance to oseltamivir occurs with the H274Y variant in viruses that contain N1; however, to date, such variants have been less fit, have not been transmitted from person to person, and have retained susceptibility to zanamivir. Alternative agents and approaches, including parenteral and combination therapy, for the treatment of influenza are needed in the near and long term.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Antiviral; Clinical management; Microbiology; Infection; Influenza

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences; Viral disease

Descripteur(s) français

Descripteur(s) : Antiviral; Conduite à tenir; Microbiologie; Infection; Grippe

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales; Virose

Localisation : INIST, Shelf number 2052, INIST No. 354000158817340070

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Vaccines for seasonal and pandemic influenza. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Titre : Vaccines for seasonal and pandemic influenza. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Auteur(s) : NICHOL Kristin L; TREANOR John J; WHITLEY Richard J, ed; MONTO Arnold S, ed; BARTLETT John, ed; HAYDEN Frederick G, ed; TAPPER Michael, ed; PAVIA Andrew T, ed

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Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 46 ref.

Résumé : Seasonal influenza continues to have a huge annual impact in the United States, accounting for tens of millions of illnesses, hundreds of thousands of excess hospitalizations, and tens of thousands of excess deaths. Vaccination remains the mainstay for the prevention of influenza. In the United States, 2 types of influenza vaccine are currently licensed: trivalent inactivated influenza vaccine and live attenuated influenza vaccine. Both are safe and effective in the populations for which they are approved for use. Children, adults <65 years of age, and the elderly all receive substantial health benefits from vaccination. In addition, vaccination appears to be cost-effective, if not cost saving, across the age spectrum. Despite long-standing recommendations for the routine vaccination of persons in high-priority groups, US vaccination rates remain too low across all age groups. Important issues to be addressed include improving vaccine delivery to current and expanded target groups, ensuring timely availability of adequate vaccine supply, and development of even more effective vaccines. Development of a vaccine against potentially pandemic strains is an essential part of the strategy to control and prevent a pandemic outbreak. The use of existing technologies for influenza vaccine production would be the most straightforward approach, because these technologies are commercially available and licensing would be relatively simple. Approaches currently being tested include subvirion inactivated vaccines and cold-adapted, live attenuated vaccines. Preliminary results have suggested that, for some pandemic antigens, particularly H5, subvirion inactivated vaccines are poorly immunogenic, for reasons that are not clear. Data from evaluation of live pandemic vaccines are pending. Second-generation approaches designed to provide improved immune responses at lower doses have focused on adjuvants such as alum and MF59, which are currently licensed for influenza or other vaccines. Additional experimental approaches are required to achieve the ultimate goal for seasonal and pandemic influenza prevention-namely, the ability to generate broadly cross-reactive and durable protection in humans.

Code(s) de classement : 002A05F04; 002B05

Descripteur(s) anglais

Descripteur(s) : Vaccine; Microbiology; Infection; Influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Infectious diseases; Medical sciences; Viral disease

Descripteur(s) français

Descripteur(s) : Vaccin; Microbiologie; Infection; Grippe

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales; Virose

Localisation : INIST, Shelf number 2052, INIST No. 354000158817340060

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Role of the laboratory in diagnosis of influenza during seasonal epidemics and potential pandemics. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Titre : Role of the laboratory in diagnosis of influenza during seasonal epidemics and potential pandemics. Seasonal and pandemic influenza: at the crossroads, a global opportunity

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Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 55 ref.

Résumé : Laboratory diagnosis of influenza is critical to its treatment and surveillance. With the emergence of novel and highly pathogenic avian influenza viruses, the role of the laboratory has been further extended to include isolation and subtyping of the virus to monitor its appearance and facilitate appropriate vaccine development. Recent progress in enhancing testing for influenza promises to both improve the management of patients with influenza and decrease associated health care costs. The present review covers the technological characteristics and utilization features of currently available diagnostic tests, the factors that influence the selection of such tests, and the developments that are essential for pandemic preparedness.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Diagnosis; Epidemic; Microbiology; Infection; Influenza

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences; Viral disease

Descripteur(s) français

Descripteur(s) : Diagnostic; Epidemie; Microbiologie; Infection; Grippe

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences medicales; Virose

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Epidemiology of pandemic influenza : Use of surveillance and modeling for pandemic preparedness. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Titre : Epidemiology of pandemic influenza : Use of surveillance and modeling for pandemic preparedness. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Auteur(s) : MONTO Arnold S; COMANOR Lorraine; SHAY David K; THOMPSON William W; WHITLEY Richard J, ed; MONTO Arnold S, ed; BARTLETT John, ed; HAYDEN Frederick G, ed; TAPPER Michael, ed; PAVIA Andrew T, ed

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Source : The Journal of infectious diseases. 2006; 194 (SUP2) : S92-S97

ISSN : 0022-1899

CODEN : JIDIAQ

Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 29 ref.

Résumé : Along with continual enhancement of current influenza surveillance programs, pandemic preparedness also involves application of current surveillance techniques to past pandemics to identify their viruses and patterns, as well as estimation of the potential burden of future pandemics. Although mortality surveillance has been in place in selected locations for more than a century, the recent development of molecular diagnostics has shed new light on the origin and structure of the viruses responsible for the past 3 pandemics, allowing for comparisons with new viruses identified through ongoing viral surveillance. Models previously used to estimate hospitalizations and mortality associated with past epidemics and pandemics have evolved to estimate the burden and required surge capacity of future pandemics of different severities.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Epidemiology; Modeling; Microbiology; Infection; Influenza

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences; Viral disease

Descripteur(s) français

Descripteur(s) : Epidemiologie; Modelisation; Microbiologie; Infection; Grippe

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales; Virose

Localisation : INIST, Shelf number 2052, INIST No. 354000158817340040

Origine de la notice : INIST

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Epidemiology of seasonal influenza : Use of surveillance data and statistical models to estimate the burden of disease. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Titre : Epidemiology of seasonal influenza : Use of surveillance data and statistical models to estimate the burden of disease. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Auteur(s) : THOMPSON William W; COMANOR Lorraine; SHAY David K; WHITLEY Richard J, ed; MONTO Arnold S, ed; BARTLETT John, ed; HAYDEN Frederick G, ed; TAPPER Michael, ed; PAVIA Andrew T, ed

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ISSN : 0022-1899

CODEN : JIDIAQ

Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 30 ref.

Résumé : The US Centers for Disease Control and Prevention (CDC) uses a 7-component national surveillance system for influenza that includes virologic, influenza-like illness, hospitalization, and mortality data. In addition, some states and health organizations collect additional influenza surveillance data that complement the CDC's surveillance system. Current surveillance data from these programs, together with national hospitalization and mortality data, have been used in statistical models to estimate the annual burden of disease associated with influenza in the United States for many years. National influenza surveillance data also have been used in suitable models to estimate the possible impact of future pandemics. As part of the public health response to the 2003-2004 influenza season, which was noteworthy for its severe effect among children, new US surveillance activities were undertaken. Further improvements in national influenza surveillance systems will be needed to collect and analyze data in a timely manner during the next pandemic.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Epidemiology; Models; Microbiology; Infection; Influenza

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences; Viral disease

Descripteur(s) français

Descripteur(s) : Epidémiologie; Modèle; Microbiologie; Infection; Grippe

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales; Virose

Localisation : INIST, Shelf number 2052, INIST No. 354000158817340030

Origine de la notice : INIST

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Pandemic preparedness : Pigs, poultry, and people versus plans, products, and practice. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Titre : Pandemic preparedness : Pigs, poultry, and people versus plans, products, and practice. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Auteur(s) : GERBERDING Julie L; WHITLEY Richard J, ed; MONTO Arnold S, ed; BARTLETT John, ed; HAYDEN Frederick G, ed; TAPPER Michael, ed; PAVIA Andrew T, ed

Affiliation(s) : Centers for Disease Control and Prevention, Atlanta, Georgia, United States; Departments of Pediatrics, Microbiology, Medicine, and Neurosurgery and Center for Biodefense and Emerging Infections, University of Alabama at Birmingham, Birmingham, United States; Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, United States; Johns Hopkins University School of Medicine, Baltimore, Maryland, United States; University of Virginia School of Medicine, Charlottesville, United States; Lenox Hill Hospital and New York University School of Medicine, New York, New York, United States; University of Utah, Salt Lake City, United States

Source : The Journal of infectious diseases. 2006; 194 (SUP2) : S77-S81

ISSN : 0022-1899

CODEN : JIDIAQ

Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 4 ref.

Résumé : Influenza pandemic preparedness planning is critical for reducing human suffering and negative effects on the economy and society. The Centers for Disease Control and Prevention (CDC) is working to ensure a rapid, efficient, and successful response to an outbreak if, when, and where it appears. The CDC's context for strategic planning is based on experiences with seasonal influenza and what is known about past influenza pandemics. From a public health perspective, pandemic preparedness can be achieved with a plan that builds a network of shared responsibility from the local to the global level, with a focus on saving lives with vaccines, antiviral drugs, medical supplies, containment, and communication.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Swine; Human; Poultry; Microbiology; Infection

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences; Artiodactyla; Ungulata; Mammalia; Vertebrata; Veterinary; Farming animal

Descripteur(s) français

Descripteur(s) : Porcin; Homme; Volaille; Microbiologie; Infection

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales; Artiodactyla; Ungulata; Mammalia; Vertebrata; Vétérinaire; Animal élevage

Localisation : INIST, Shelf number 2052, INIST No. 354000158817340020

Origine de la notice : INIST

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Seasonal and pandemic influenza preparedness : Science and countermeasures. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Titre : Seasonal and pandemic influenza preparedness : Science and countermeasures. Seasonal and pandemic influenza: at the crossroads, a global opportunity

Auteur(s) : FAUCI Anthony S; WHITLEY Richard J, ed; MONTO Arnold S, ed; BARTLETT John, ed; HAYDEN Frederick G, ed; TAPPER Michael, ed; PAVIA Andrew T, ed

Affiliation(s) : National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Maryland, United States; Departments of Pediatrics, Microbiology, Medicine, and Neurosurgery and Center for Biodefense and Emerging Infections, University of Alabama at Birmingham, Birmingham, United States; Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, United States; Johns Hopkins University School of Medicine, Baltimore, Maryland, United States; University of Virginia School of Medicine, Charlottesville, United States; Lenox Hill Hospital and New York University School of Medicine, New York, New York, United States; University of Utah, Salt Lake City, United States

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ISSN : 0022-1899

CODEN : JIDIAQ

Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : 11 ref.

Résumé : Influenza has not been treated with the degree of medical attention that the disease warrants. As such, there is not an adequate baseline of preparedness in the United States to deal with the potential of pandemic influenza. The National Institute of Allergy and Infectious Diseases (NIAID) has been working to enact measures to deal more effectively with a potential influenza pandemic and also to assist in the management of seasonal influenza. The majority of the NIAID's efforts have been dedicated to basic research aimed ultimately at developing and testing, in clinical trials, countermeasures in the form of antiviral drugs and vaccines. Some of the NIAID's current and planned antiviral projects include the (1) assessment of oseltamivir therapy in infants, (2) conduct of clinical trials of higher doses of oseltamivir for avian influenza, (3) appraisal of combination therapies, and (4) evaluation of the next generation of neuraminidase inhibitors. In addition, the NIAID is screening potential new antiviral drugs and evaluating novel drug targets. Similarly, significant funding has been committed to vaccine preparedness, and numerous novel candidate influenza vaccines are in various stages of development. Importantly, there is an integral relationship between preparation for seasonal influenza and preparation for pandemic influenza. Until these approaches are firmly linked, the community will not have optimized its preparedness for a pandemic.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Microbiology; Infection; Influenza

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences; Viral disease

Descripteur(s) français

Descripteur(s) : Microbiologie; Infection; Grippe

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales; Virose

Localisation : INIST, Shelf number 2052, INIST No. 354000158817340010

Origine de la notice : INIST

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Seasonal and pandemic influenza: at the crossroads, a global opportunity

Titre : Seasonal and pandemic influenza: at the crossroads, a global opportunity

Auteur(s) : WHITLEY Richard J, ed; MONTO Arnold S, ed; BARTLETT John, ed; HAYDEN Frederick G, ed; TAPPER Michael, ed; PAVIA Andrew T, ed

Affiliation(s) : Departments of Pediatrics, Microbiology, Medicine, and Neurosurgery and Center for Biodefense and Emerging Infections, University of Alabama at Birmingham, Birmingham, United States; Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, United States; Johns Hopkins University School of Medicine, Baltimore, Maryland, United States; University of Virginia School of Medicine, Charlottesville, United States; Lenox Hill Hospital and New York University School of Medicine, New York, New York, United States; University of Utah, Salt Lake City, United States

Source : The Journal of infectious diseases. 2006; 194 (SUP2) : 100 p.

ISSN : 0022-1899

CODEN : JIDIAQ

Date de publication : 2006

Pays de publication : United States

Langue(s) : English

Type de document : Serial

Nombre de références : dissem.

Code(s) de classement : 002A05; 002B05

Descripteur(s) anglais

Descripteur(s) : Microbiology; Infection

Desc. génériques : Microbiology; Biological sciences; Infectious diseases; Medical sciences

Descripteur(s) français

Descripteur(s) : Microbiologie; Infection

Desc. génériques : Microbiologie; Sciences biologiques; Maladies infectieuses; Sciences médicales

Localisation : INIST, Shelf number 2052, INIST No. 354000158817340000

Origine de la notice : INIST

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Recent H5N1 avian Influenza A virus increases rapidly in virulence to mice after a single passage in mice

Titre : Recent H5N1 avian Influenza A virus increases rapidly in virulence to mice after a single passage in mice

Auteur(s) : MASE Masaji; TANIMURA Nobuhiko; IMADA Tadao; OKAMATSU Masatoshi; TSUKAMOTO Kenji; YAMAGUCHI Shigeo

Affiliation(s) : Department of Infectious Diseases, National Institute of Animal Health, 3-1-5 Kannondai, Tsukuba, Ibaraki 305-0856, Japan

Source : Journal of general virology. 2006; 87 (p. 12) : 3655-3659

ISSN : 0022-1317

CODEN : JGVIAY

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 31 ref.

Résumé : To evaluate the potential pathogenicity to mammals of the recent H5N1 avian Influenza A virus, viruses recovered from dead mice infected with A/chicken/Yamaguchi/7/2004 isolated in Japan were examined. All recovered viruses from the brains of dead mice infected with this strain (without any prior adaptation to mice) had substituted the amino acid at position 627 of the PB2 protein from glutamic acid to lysine. Their mouse lethality had increased by approximately 5×10^4 times over that of the original virus. Histopathological analysis reinforced the finding that these variants caused more rapid and severe damage to mice than the original virus. This revealed that it might be useful to characterize the recovered virus to assess its potential pathogenicity to mammals.

Code(s) de classement : 002A05C10

Descripteur(s) anglais

Descripteur(s) : Avian influenza virus; Influenza A virus; Mouse; Virulence; Microbiology; Virology; Avian influenza

Desc. génériques : Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Rodentia; Mammalia; Vertebrata

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Virus grippal A; Souris; Virulence; Microbiologie; Virologie; Grippe aviaire

Desc. génériques : Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Rodentia; Mammalia; Vertebrata

Localisation : INIST, Shelf number 13533, INIST No. 354000139103450220

Origine de la notice : INIST

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Conversion of operating theatre from positive to negative pressure environment

Titre : Conversion of operating theatre from positive to negative pressure environment

Auteur(s) : CHOW T T; KWAN A; LIN Z; BAI W

Affiliation(s) : Division of Building Science & Technology, City University of Hong Kong, Hong Kong; Department of Anaesthesiology, United Christian Hospital, Hong Kong

Source : The Journal of hospital infection. 2006; 64 (4) : 371-378

ISSN : 0195-6701

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 12 ref.

Résumé : The severe acute respiratory syndrome (SARS) crisis led to the construction of a negative pressure operating theatre at a hospital in Hong Kong. It is currently used for treatment of suspected or confirmed airborne infection cases, and was built in anticipation of a return of SARS, an outbreak of avian influenza or other respiratory epidemics. This article describes the physical conversion of a standard positive pressure operating theatre into a negative pressure environment, problems encountered, airflow design, and evaluation of performance. Since entering regular service, routine measurements and observations have indicated that the airflow performance has been satisfactory. This has also been confirmed by regular air sampling checks. Computational fluid dynamics, a computer modelling technique, was used to compare the distribution of room air before and after the design changes from positive to negative pressure. The simulation results show that the physical environment and the dispersion pattern of bacteria in the negative pressure theatre were as good as, if not better than, those in the original positive pressure design.

Code(s) de classement : 002B05C02C

Descripteur(s) anglais

Descripteur(s) : Severe acute respiratory syndrome; Operating room; Environment; Performance evaluation; Hong Kong; Treatment; Avian influenza

Desc. génériques : Virology; Infectious diseases; Medical sciences; Viral disease; Infection; China; Asia; Respiratory disease; Lung disease

Descripteur(s) français

Descripteur(s) : Syndrome respiratoire aigu severe; Bloc operatoire; Environnement; Evaluation performance; Hong Kong; Traitement; Grippe aviaire

Desc. génériques : Virologie; Maladies infectieuses; Sciences medicales; Virose; Infection; Chine; Asie; Appareil respiratoire pathologie; Poumon pathologie

Localisation : INIST, Shelf number 18802, INIST No. 354000159023730100

Origine de la notice : INIST

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Economic and social impact of epidemic and pandemic influenza

Titre : Economic and social impact of epidemic and pandemic influenza

Auteur(s) : SZUCS T D; NICHOL K

Affiliation(s) : University of Zurich, Switzerland; University of Minnesota, Minneapolis, United States

Source : Vaccine . 2006; 24 (44-46) : 6776-6778

ISSN : 0264-410X

CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Résumé : Amidst the human suffering caused an influenza epidemic it is all too easy to overlook the disease's wider social and economic impact. Not only does influenza impose huge infrastructure demands on health care systems, but it exacts substantial economic costs in terms of sickness-related absenteeism, disrupted work schedules and lost productivity to society at large. Influenza accounts for around 10% of sickness-related absence from work in Europe where the likely cost of lost productivity in France and Germany, for example, ranges from <pound sign>5.6 billion to <pound sign>8.5 billion per year, according to ESWI estimates. But how to assess the full economic impact of influenza? The direct costs are easily enough identified, but what about the indirect costs? How should these be measured? How for example, does one assess the cost of lost opportunities, and what are the economic gains of vaccination regarding avoided costs? Finally, which target groups for vaccination would generate the greatest avoided costs? Leaving aside the moral implications of such a question, the fact remains that politicians and health policymakers need the cold hard figures to optimally allocate the costs of vaccination and preventative health campaigns. These issues and more were clearly delineated during this session, co-chaired by Drs. T. Szucs of the University of Zurich and K. Nichol of the University of Minnesota.

Code(s) de classement : 002A05F04

Descripteur(s) anglais

Descripteur(s) : Economic aspect; Epidemic; Influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Aspect économique; Epidémie; Grippe

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Virose; Infection

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610480

Origine de la notice : INIST

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Influenza surveillance : Why?

Titre : Influenza surveillance : Why?

Auteur(s) : VAN DER VELDEN J

Affiliation(s) : Radboud University Medical Centre, Nijmegen, Netherlands

Source : Vaccine . 2006; 24 (44-46) : 6770-6775

ISSN : 0264-410X

CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Résumé : Surveillance is also one of the few bright spots in influenza preparedness in Europe. A sentinel network of 13,500 physicians provides an early warning in the event of an influenza outbreak. The network is part of the European Influenza Surveillance Scheme (EISS). Germany has one of the most advanced surveillance networks in Europe, and has made the reporting of laboratory-confirmed cases of influenza mandatory. Monitoring avian influenza is a good way to anticipate human influenza outbreaks. Coordinated surveillance of influenza in humans and animals is needed, and the human and veterinary surveillance systems should be linked to exchange information, diagnostic tools and antigens. Although not perfect, the current surveillance network managed by EISS functions effectively, and can play a key role in the early identification and ongoing monitoring of a pandemic influenza virus as well as the annual epidemics.

Code(s) de classement : 002A05F04

Descripteur(s) anglais

Descripteur(s) : Influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Grippe

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Virose; Infection

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610470

Origine de la notice : INIST

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How to develop and implement pandemic preparedness plans? The need for a coherent european policy

Titre : How to develop and implement pandemic preparedness plans? The need for a coherent european policy

Auteur(s) : FEDSON D S

Source : Vaccine . 2006; 24 (44-46) : 6766-6769

ISSN : 0264-410X

CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Résumé : How should public health authorities confront the threat of pandemic influenza? Is massive stockpiling the answer? If so, the costs could be overwhelming. Or is vaccination of pre-selected segments of the population the best approach? If so, then what about the tough ethical question that must be addressed: for whom-and by whose decision? Are local and national health authorities operating on the same wavelength? Just how all-encompassing should a national preparedness plan be? Finally, can we count on one national government to shuttle vaccines across Europe's internal borders where they are needed to deal with an outbreak-or will hoarding and panic ensue? These issues and more were the focus of debate during the conference's session on preparedness plans, chaired by Dr. D. Fedson, former professor of medicine at the University of Virginia. As participants observed, Europe faces an alarming diversity of approaches and states of readiness from one country to the next, which cries out for a coherent European policy.

Code(s) de classement : 002A05F04

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610460

Origine de la notice : INIST

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Epidemic and pandemic influenza, who cares and how?

Titre : Epidemic and pandemic influenza, who cares and how?

Auteur(s) : OSTERHAUS Albert D M E; OXFORD John S

Source : Vaccine . 2006; 24 (44-46) : 6762-6765

ISSN : 0264-410X

CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Résumé : The 2005 hurricanes, Katrina and Rita, demonstrated that Mother Nature remains a bigger threat to mankind than bioterrorism or even terrorism. This is no less the case in the expected influenza pandemic that could infect up to 1 billion people worldwide killing millions and disrupting the supply of essential services and provoking social disruption. With influenza however, mankind does have the opportunity to make necessary preparations for the threat of a pandemic that could break out tomorrow, next year or within the next decade. Indeed, the events in New Orleans have sent "a strong message that knowledge is not enough, everyone predicted it [referring to hurricane Katrina], but no one did much about it-you need a detailed plan to deal with these threats," explained Dr. J.S. Oxford to the conference seminar on "epidemic and pandemic influenza, who cares and how?" During this session, participants discussed the state of pandemic preparedness listening to representatives from the UK and Canada who presented overviews of their preparedness plans, viewed as among the best examples of current practice and to a study on compliance with the WHO guidelines on flu vaccination.

Code(s) de classement : 002A05F04

Descripteur(s) anglais

Descripteur(s) : Epidemic; Influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Epidemie; Grippe

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Virose; Infection

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610450

Origine de la notice : INIST

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Modelling the health-economic impact of the next influenza pandemic in The Netherlands

Titre : Modelling the health-economic impact of the next influenza pandemic in The Netherlands

Auteur(s) : HAK E; MEIJBOOM M J; BUSKENS E

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Source : Vaccine . 2006; 24 (44-46) : 6756-6760

ISSN : 0264-410X

CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 15 ref.

Résumé : To optimally develop or adjust national contingency plans to respond to the next influenza pandemic, we developed a decision type model and estimated the total health burden and direct medical costs during the next possible influenza pandemic in the Netherlands on the basis of health care burden during a regular epidemic. Using an arithmetic decision tree-type model we took into account population characteristics, varying influenza attack rates, health care consumption according to the Dutch health care model and all-cause mortality. Actual direct medical cost estimates were based on the Dutch guidelines for pharmaco-economic evaluation. In the base-case scenario with no preventive measure available and an average influenza attack rate of 30%, 4,958,188 influenza infections, 1,552,687 GP consultations, 83,515 hospitalizations and 173,396 deaths will take place in The Netherlands. The burden is highest in adults aged 20 to 64 years. If minimizing the total mortality and sustaining highest net economic returns is the objective, this group needs to be targeted in interventions.

Code(s) de classement : 002A05F04

Descripteur(s) anglais

Descripteur(s) : Economic aspect; Netherlands; Models; Prevention; Influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Europe; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Aspect économique; Pays Bas; Modele; Prevention; Grippe

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Europe; Virose; Infection

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610430

Origine de la notice : INIST

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Strategies for containing a global influenza pandemic

Titre : Strategies for containing a global influenza pandemic

Auteur(s) : FLAHAULT Antoine; VERGU Elisabeta; COUDEVILLE Laurent; GRAIS Rebecca F

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Source : Vaccine . 2006; 24 (44-46) : 6751-6755

ISSN : 0264-410X

CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 11 ref.

Résumé : Mathematical modelling provides useful insight into the geographic and temporal spread of pandemic influenza. It has been recently used to assess the ability to stop a pandemic at a very early stage. Here, we model the global diffusion of pandemic influenza and the impact of available preventive and control measures. We refined a published SEIR deterministic model of disease dynamics within 52 cities interconnected via air transport to simulate the impact of five interventions in a variety of scenarios: vaccination, case isolation, therapeutic and prophylactic antiviral treatment, and air traffic reduction. The impact of these measures was assessed on the spread of a potential pandemic strain profile, with an average attack-rate of 26%, a case-fatality rate of 2.5% and a residual immunity of 25%. Our analysis highlighted the importance of: (1) a global perspective for dealing with pandemic risks; (2) the time factor and, hence, the importance of surveillance systems; (3) the complementary role of available control measures. Results provide general guidance for the issues of concern to public-health decision-makers: when to set up interventions, where, and at which administrative levels.

Code(s) de classement : 002A05F04

Descripteur(s) anglais

Descripteur(s) : Prevention; Immunization; Vaccine; Influenza A

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Prevention; Immunisation; Vaccin; Grippe A

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquee; Microbiologie; Sciences biologiques; Virose; Infection

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610420

Origine de la notice : INIST

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Estimation of the reproductive number of the spanish flu epidemic in Geneva, Switzerland

Titre : Estimation of the reproductive number of the spanish flu epidemic in Geneva, Switzerland

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Source : Vaccine . 2006; 24 (44-46) : 6747-6750

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CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 7 ref.

Résumé : The 1918 influenza pandemic known as the "Spanish Flu" has been the worst in recent history with estimated worldwide mortality ranging from 20 to 100 million deaths. Using epidemic modeling and hospital notification data during the 1918 influenza pandemic in the Canton of Geneva, Switzerland, we estimated the reproductive numbers of the first and second waves of influenza infection to be $R_i = 1.49$ (95% CI: 1.45-1.53) and $R_{>2} = 3.75$ (95% CI: 3.57-3.93), respectively. Our estimates indicate that containment of the next influenza pandemic could require strict interventions that include effective isolation strategies in hospitals and reductions in the susceptibility of the general population.

Code(s) de classement : 002A05F04

Descripteur(s) anglais

Descripteur(s) : Epidemic; Switzerland; Influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Europe; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Epidemie; Suisse; Grippe

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquee; Microbiologie; Sciences biologiques; Europe; Virose; Infection

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610410

Origine de la notice : INIST

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Scientific lessons from the first influenza pandemic of the 20th century

Titre : Scientific lessons from the first influenza pandemic of the 20th century

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Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 29 ref.

Résumé : Re-analysis of the influenza pandemic of 1918 has given reassurance about a rather low reproductive number ($R < sub > 0$), a prolonged herald wave of virus and that the skewed mortality towards the young adult could be a singularly unique event dependent upon previous infection history, perhaps not to be repeated in a future pandemic. Over 99% of those who contracted the virus survived, in spite of the absence of antivirals, vaccine and antibiotics for the secondary bacteria infections which probably accounted for one-third of the 50 million deaths. Therefore, in spite of a three-fold population increase since 1918 and 100 thousand plane journeys daily, judicious and careful planning together with a stockpile of antiviral drugs, oseltamivir, zanamivir and M2 blockers and a generic H5N1 vaccine, and application of hygiene would be expected to reduce mortality in a new pandemic, to figures significantly less than 1918.

Code(s) de classement : 002A05F04

Descripteur(s) anglais

Descripteur(s) : Influenza; Oseltamivir; Antiviral

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Grippe; Oseltamivir; Antiviral

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Virose; Infection

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610400

Origine de la notice : INIST

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An emerging avian influenza A virus H5N7 is a genetic reassortant of highly pathogenic genes

Titre : An emerging avian influenza A virus H5N7 is a genetic reassortant of highly pathogenic genes

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CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 44 ref.

Résumé : We full genome characterised the newly discovered avian influenza virus H5N7 subtype combination isolated from a stock of Danish game ducks to investigate the composition of the genome and possible features of high pathogenicity. It was found that the haemagglutinin and the acidic polymerase genes were closely related to a low pathogenic H5 strain (A/Duck/Denmark/65047/04 H5N2). The neuraminidase and the non-structural genes were closely related to the highly pathogenic H7N7 strains from The Netherlands 2003. The basic polymerase genes 1 and 2 were shared between the Danish H5N7 and H5N2 and the H7N7 from The Netherlands. The nucleoprotein and the matrix genes were closely related to H6 strains. Thus, the new H5N7 subtype share genes with H5, H7 and H6 subtypes and possesses internal genes originating from highly pathogenic strains. The findings emphasize the need for surveillance presumed low pathogenic avian influenza A viruses.

Code(s) de classement : 002A05F04; 002A05C10

Descripteur(s) anglais

Descripteur(s) : Avian influenza virus; Influenza A virus; Genetics; Pathogenicity; Gene; Influenza A; Genetic reassortment; Avian influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Virus grippal A; Genetique; Pouvoir pathogene; Gene; Grippe A; Reassortiment genetique; Grippe aviaire

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquee; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Virose; Infection

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610390

Origine de la notice : INIST

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High prevalence of influenza A virus in ducks caught during spring migration through Sweden

Titre : High prevalence of influenza A virus in ducks caught during spring migration through Sweden

Auteur(s) : WALLENSTEN Anders; MUNSTER Vincent J; KARLSSON Malin; LUNDKVIST Ake; BRYTTING Mia; STERVANDER Martin; OSTERHAUS Albert D M E; FOUCHIER Ron A M; OLSEN Bjorn

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CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Type de document : short-communication

Nombre de références : 3 ref.

Résumé : As part of our ongoing screening of wild birds in Northern Europe, 358 mallards (*Anas platyrhynchos*) and 203 shelducks (*Tadorna tadorna*) were caught in southern Sweden during the spring 2003. Faecal samples were analyzed by real time RT-PCR for the presence of influenza A virus. In contrast to what has been found in North American studies; Eurasian spring migrating ducks passing through Sweden had a relatively high prevalence of influenza A virus.

Code(s) de classement : 002A05F04; 002A05C10

Descripteur(s) anglais

Descripteur(s) : Influenza A virus; Avian influenza virus; Aves; Prevalence; Epidemiology; Sweden

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Vertebrata; Europe

Descripteur(s) français

Descripteur(s) : Virus grippal A; Influenzavirus aviaire; Aves; Prevalence; Epidemiologie; Suede

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquee; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Vertebrata; Europe

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610380

Origine de la notice : INIST

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Towards improved influenza A virus surveillance in migrating birds

Titre : Towards improved influenza A virus surveillance in migrating birds

Auteur(s) : MUNSTER Vincent J; VEEN Jan; OLSEN Bjorn; VOGEL Rob; OSTERHAUS Albert D M E; FOUCHIER Ron A M

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Source : Vaccine . 2006; 24 (44-46) : 6729-6733

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CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 31 ref.

Résumé : The last decade has seen a marked increase in highly pathogenic avian influenza (HPAI) outbreaks around the world. This increase and the zoonotic potential of some of the HPAI viruses are of great concern to animal and public health as well as biodiversity. It is now well recognized that global influenza virus surveillance in wild birds can play a key role in the early recognition of and preparation for these threats. Here we summarize the most important results from our wild bird surveillance studies in Northern Europe over the last 8 years and conclude that surveillance studies in wild birds are indeed useful to generate prototypic vaccine candidates and to design and evaluate diagnostic tests, prior to the occurrence of outbreaks in animals and humans. Through this 8-year experience we also identified gaps in our knowledge on influenza A viruses and their natural hosts which may help to assist in the design of improved surveillance studies. This is particularly relevant if wild bird surveillance studies are used as an "early warning system" for the arrival of the H5N1 HPAI virus in a country or region and to assess the risk posed by these viruses in general.

Code(s) de classement : 002A05F04; 002A05C10

Descripteur(s) anglais

Descripteur(s) : Influenza A virus; Aves

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus; Vertebrata

Descripteur(s) français

Descripteur(s) : Virus grippal A; Aves

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus; Vertebrata

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610370

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Transmissibility and mortality impact of epidemic and pandemic influenza, with emphasis on the unusually deadly 1951 epidemic

Titre : Transmissibility and mortality impact of epidemic and pandemic influenza, with emphasis on the unusually deadly 1951 epidemic

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CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 31 ref.

Résumé : There are important gaps in our current understanding of the influenza virus behavior. In particular, it remains unclear why some interpandemic seasons are associated with unusually high mortality impact, sometimes comparable to that of pandemics. Here we compare the epidemiological patterns of the unusually deadly 1951 influenza epidemic (A/H1N1) in England and Wales and Canada with those of surrounding epidemic and pandemic seasons, in terms of overall mortality impact and transmissibility. Based on the statistical and mathematical analysis of vital statistics and morbidity epidemic curves in these two countries, we show that the 1951 epidemic was associated with both higher mortality impact and higher transmissibility than the 1957 and 1968 pandemics. Surprisingly in Liverpool, considered the 'epicenter' of the severe 1951 epidemic, the mortality impact and transmissibility even surpassed the 1918 pandemic.

Code(s) de classement : 002A05F04

Descripteur(s) anglais

Descripteur(s) : Epidemic; Canada; England; Wales; Influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; North America; America; Great Britain; United Kingdom; Europe; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Epidemie; Canada; Angleterre; Pays de Galles; Grippe

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Amérique du Nord; Amérique; Grande Bretagne; Royaume Uni; Europe; Virose; Infection

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610310

Origine de la notice : INIST

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Development of H5-RT-LAMP (loop-mediated isothermal amplification) system for rapid diagnosis of H5 avian influenza virus infection

Titre : Development of H5-RT-LAMP (loop-mediated isothermal amplification) system for rapid diagnosis of H5 avian influenza virus infection

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CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 11 ref.

Résumé : We developed a rapid and sensitive diagnosis system for H5N1 highly pathogenic avian influenza (HPAI) virus infection using a unique gene amplification method, reverse transcriptase loop-mediated isothermal amplification (RT-LAMP). The sensitivity of the system was found to be 100-fold higher than that of ordinary one-step RT-PCR. Moreover, by using viral RNAs extracted from influenza viruses of all 15 HA subtypes, the RT-LAMP system was confirmed to amplify only the RNA of H5 subtype virus. In the surveillance of H5N1 virus infection of wild birds, we detected two positive cases from dead crows found near the affected area with H5N1-HPAI by using RT-LAMP system, although one of two positive cases was missed by RT-PCR. These results suggested that our newly developed RT-LAMP system specific for H5 virus would be a beneficial diagnostic tool for surveillance of recent outbreaks caused by H5N1-HPAI viruses.

Code(s) de classement : 002A05F04; 002A05C10

Descripteur(s) anglais

Descripteur(s) : Avian influenza virus; Amplification; Diagnosis; Pathogenicity; Reverse transcription polymerase chain reaction; Avian influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Influenzavirus A; Orthomyxoviridae; Virus

Descripteur(s) français

Descripteur(s) : Influenzavirus aviaire; Amplification; Diagnostic; Pouvoir pathogène; Reaction chaîne polymérase RT; Grippe aviaire

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Influenzavirus A; Orthomyxoviridae; Virus

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610260

Origine de la notice : INIST

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Cross-protective immunity in mice induced by live-attenuated or inactivated vaccines against highly pathogenic influenza A (H5N1) viruses

Titre : Cross-protective immunity in mice induced by live-attenuated or inactivated vaccines against highly pathogenic influenza A (H5N1) viruses

Auteur(s) : XIUHUA LU; EDWARDS Lindsay E; DESHEVA Julia A; NGUYEN Doan C; REKSTIN Andrey; STEPHENSON Iain; SZRETTTER Kristy; COX Nancy J; RUDENKO Larisa G; KLIMOV Alexander; KATZ Jacqueline M

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Source : Vaccine . 2006; 24 (44-46) : 6588-6593

ISSN : 0264-410X

CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 21 ref.

Résumé : Because of the time required to identify and produce an antigenically well-matched pandemic vaccine, vaccines that offer broader cross-reactive immunity and protection are desirable. We have compared a live attenuated influenza vaccine (LAIV) and inactivated influenza vaccine (IIV) based on a related H5 hemagglutinin (HA) from a nonpathogenic avian influenza virus, A/Duck/Potsdam/1042-6/86 (H5N2), for the ability to induce cross-reactive immunity and/or cross-protective efficacy against a contemporary highly pathogenic H5N1 viruses. Both LAIV and IIV provided cross-protection from systemic infection, severe disease, and death following lethal challenges with antigenically distinct A/Vietnam/1203/2004 (VN/1203) virus. Substantial levels of serum anti-VN/1203 HA IgG were detected in mice that received either IIV or LAIV, while nasal wash anti-VN/1203 HA IgA was detected in mice that received LAIV. Formulation of IIV with alum adjuvant augmented neutralizing antibody responses and protective efficacy. These results demonstrated that vaccination of mice with H5 IIV or LAIV induced a high degree of cross-protection from illness and death following lethal challenges with a heterologous H5N1 virus. Published by Elsevier Ltd.

Code(s) de classement : 002A05F04

Descripteur(s) anglais

Descripteur(s) : Mouse; Cross immunity; Immunoprotection; Attenuated strain; Vaccine; Pathogenicity; Influenza A; Avian influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Rodentia; Mammalia; Vertebrata; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Souris; Immunité croisée; Immunoprotection; Souche atténuée; Vaccin; Pouvoir pathogène; Grippe A; Grippe aviaire

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Rodentia; Mammalia; Vertebrata; Virose; Infection

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610040

Origine de la notice : INIST

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The humoral immune response and protective efficacy of vaccination with inactivated split and whole influenza virus vaccines in BALB/c mice

Titre : The humoral immune response and protective efficacy of vaccination with inactivated split and whole influenza virus vaccines in BALB/c mice

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Source : Vaccine . 2006; 24 (44-46) : 6585-6587

ISSN : 0264-410X

CODEN : VACCDE

Date de publication : 2006

Pays de publication : United Kingdom

Langue(s) : English

Type de document : Serial

Nombre de références : 21 ref.

Résumé : Recently the urgency of developing a pandemic influenza vaccine has lead to the re-evaluation of the use of whole virus vaccine. We have compared the humoral immune response and the protective efficacy of whole and split influenza virus vaccines in mice. Whole virus vaccine was more immunogenic particularly after the first dose of vaccine, generally eliciting higher numbers of systemic antibody secreting cells and an earlier and higher neutralising antibody response. Immunisation with one dose of whole virus vaccine more effectively reduced viral shedding upon non-lethal homologous viral challenge, but two doses of split virus vaccine was most effective at limiting viral replication and this was correlated with high influenza specific serum IgG concentrations. The two vaccine formulations induced different T helper profiles particularly after one dose of vaccine; split virus vaccine induced a type 2 bias response, whereas whole virus vaccine elicited a dominant type 1 response.

Code(s) de classement : 002A05F04; 002A05C10

Descripteur(s) anglais

Descripteur(s) : Influenza C virus; Mouse; Humoral immunity; Immunoprotection; Efficiency; Vaccination; Vaccine; Immune response; Influenza

Desc. génériques : Immunology; Pharmacology; Applied microbiology; Microbiology; Biological sciences; Virology; Microbiology; Biological sciences; Influenzavirus C; Orthomyxoviridae; Virus; Rodentia; Mammalia; Vertebrata; Viral disease; Infection

Descripteur(s) français

Descripteur(s) : Virus grippal C; Souris; Immunité humorale; Immunoprotection; Efficacité; Vaccination; Vaccin; Réponse immunitaire; Grippe

Desc. génériques : Immunologie; Pharmacologie; Microbiologie appliquée; Microbiologie; Sciences biologiques; Virologie; Microbiologie; Sciences biologiques; Influenzavirus C; Orthomyxoviridae; Virus; Rodentia; Mammalia; Vertebrata; Virose; Infection

Localisation : INIST, Shelf number 20289, INIST No. 354000143104610030

Origine de la notice : INIST

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