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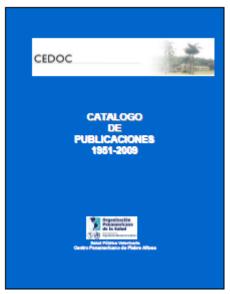
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Objetivos/ Objectives

Identificar y atender las necesidades de información, adquisición, organización, almacenamiento, generación, uso y difusión de la información en salud pública veterinaria y proveer recursos bibliográficos técnicos-científicos al equipo de profesionales de la unidad y a los usuarios externos.

Identify and take care of the needs of information, acquisition, organization, storage, generation, use and diffusion of the information in veterinary public health and provide technical scientific bibliographical resources to the professional staff of the unit and to the users external.

Temas de interés general / Subjects of general interest



http://www.panaftosa.org.br/Comp/Documentacao/doc/Catalogo-1951-2009.pdf

El presente catalogo reúne referencias bibliográficas relacionadas a los trabajos publicados por los profesionales del Centro Panamericano de Fiebre Aftosa (PANAFTOSA) de la Organización Panamericana de la Salud (OPS), Organización Mundial de la Salud (OMS), durante el período de 1951-2009 y tiene como finalidad ser mas una herramienta de apoyo a los profesionales que buscan información en el área de salud pública veterinaria.

Al elaborar esta colección, el Centro de Documentación (CEDOC) de PANAFTOSA seleccionó documentos publicados principalmente en revistas científicas, siendo que algunos posibilitan *download* y están disponibles en texto completo.

La investigación no pretendió ser exhaustiva, por lo tanto, podrá ser enriquecida con la contribución de la comunidad de profesionales. El catalogo será actualizado a medida en que nuevos trabajos sean publicados.

Informaciones disponibles en formato electrónico / Information available in electronic format

Fiebre Aftosa / Foot-and-Mouth Disease



Airborne spread of foot-and-mouth disease - Model intercomparison Gloster J, Jones A, Redington A, Burgin L, Sørensen JH, Turner R, Dillon M, Hullinger P, Veterinary Journal Simpson M, Astrup P, Garner G, Stewart P, D'Amours R, Sellers R, Paton D Vet J. 2010 Mar; 183 (3): 278-286

Foot-and-mouth disease virus (FMDV) spreads by direct contact between animals, by animal products (milk, meat and semen), by mechanical transfer on people or fomites and by the airborne route, with the relative importance of each mechanism depending on the particular outbreak characteristics. Atmospheric dispersion models have been developed to assess airborne spread of FMDV in a number of countries, including the UK, Denmark, Australia, New Zealand, USA and Canada. These models were compared at a Workshop hosted by the Institute for Animal Health/Met Office in 2008. Each modeller was provided with data relating to the 1967 outbreak of FMD in Hampshire, UK, and asked to predict the spread of FMDV by the airborne route. A number of key issues emerged from the Workshop and subsequent modelling work: (1) in general all models predicted similar directions for livestock at risk, with much of the remaining differences strongly related to differences in the meteorological data used; (2) determination of an accurate sequence of events on the infected premises is highly important, especially if the meteorological conditions vary substantially during the virus emission period; (3) differences in assumptions made about virus release, environmental fate and susceptibility to airborne infection can substantially modify the size and location of the downwind risk area. All of the atmospheric dispersion models compared at the Workshop can be used to assess windborne spread of FMDV and provide scientific advice to those responsible for making control and eradication decisions in the event of an outbreak of disease.

Text in English



Foot-and-mouth disease viral loads in pigs in the early, acute stage of disease Murphy C, Bashiruddin JB, Quan M, Zhang Z, Alexandersen S Vet Rec. 2010 Jan; 166 (1): 10-4

The progress and pathogenesis of foot-and-mouth disease virus (FMDV) was studied in infected pigs by observing the development of clinical signs in two separate experiments. Viral loads were determined by real-time quantitative RT-PCR in the liver, spleen, cervical lymph node, mandibular lymph node, retropharyngeal lymph node, soft palate, pharynx, tonsil, tongue and skin (coronary band area). Tissue samples were collected from both inoculated and contact-infected pigs at several time points during infection, and blood samples were collected to assess viraemia and its relationship to tissue viral load. Virus first appeared in the lymph nodes, followed by viraemia and then clinical signs. The results suggested that FMDV accumulated in lymphoid tissue up to six hours after infection, in the tissues drained by the mandibular lymph node and tonsil and then disseminated throughout the body where epithelial cells were the favoured sites of replication.



Improvement of a recombinant antibody-based serological assay for foot-andmouth disease virus

Muller JD, Wilkins M, Foord AJ, Dolezal O, Yu M, Heine HG, Wang LF J Immunol Methods. 2010 Jan; 352 (1-2): 81-8

Differentiating foot-and-mouth disease virus (FMDV) antibodies generated during a natural infection from those due to vaccination (DIVA) is crucial for proving freedom from disease after an outbreak and allowing resumption of trade in livestock products. The World Organisation for Animal Health (OIE) recommends that FMDV vaccines are composed of inactivated virus that has been purified to remove non-structural viral proteins. Such purified vaccines primarily induce antibodies to viral structural proteins, whereas replicating virus stimulates host antibodies specific for both structural and non-structural proteins. The current preferred FMDV DIVA test is a competitive ELISA (C-ELISA) designed to detect antibodies to the non-structural protein 3ABC. Previously, we described the development of an FMDV DIVA test based entirely on recombinant proteins (the recombinant detecting antibody and the 3ABC coating antigen) produced in Escherichia coli. In this study, we have determined the precise binding site of the recombinant detecting antibody to a conserved sequence within the 3B region of the 3ABC protein, replaced the original E-tag of the detecting antibody with two in-house tags and engineered a direct antibody-reporting enzyme (alkaline phosphatase) fusion protein. These modifications have further improved the DIVA test, providing great potential for large scale production and uptake due to its simplicity, reproducibility and low cost.

Text in English



Report for the 5th Annual Meeting of the Network of OIE/FAO Reference Laboratories for Foot-and-Mouth Disease, 23-27 November 2009, Delhi, India

The Report presents the conclusions of the meeting. http://www.wrlfmd.org/ref_labs/ref_lab_reports/Report_5th_Ann_Mtng_FMD_Netwk_18-12-09.pdf

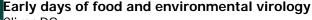
Influenza Aviar / Avian Influenza



Genetic analysis of avian influenza virus from migratory waterfowl in México Montalvo-Corral M, Hernandéz J Arch Virol. 2010; 155 (1): 97-101

This study describes the genetic characterization of avian influenza virus from waterfowl in Mexico. Partial sequences of two H5, one H6, and one H9 hemmaglutinin (HA) genes were determined. The deduced amino acid sequences showed that they were low-pathogenic viruses (LPAI). Phylogenetic analysis of H5 and H6 HA indicates a North American lineage, closely related to contemporary Californian isolates, and H9 HA was closer to the Korean-like lineage. These results demonstrate the introduction of a diverse genetic pool of subtypes to Sonora estuaries through circulation of bird species carriers from the Pacific flyway.

Inocuidad de los Alimentos / Food Safety





Food and

Food Environ Virol. 2010; 2: 1–23

In July 1962, the author joined the Food Research Institute (FRI), then at the University of Chicago, to become its food virologist. There was a limited record of waterborne viral disease outbreaks at the time; recorded data on foodborne outbreaks were fewer still. Laboratory environmental (water and wastewater) virology was in its infancy, and food virology was in gestation. Detection of viruses was most often attempted by inoculation of primary primate cell cultures, with observation for plaque formation or cytopathic effects. Focus was initially on enteroviruses and reoviruses. Environmental and food samples had to be liquefied if not already in liquid form; clarified to remove solids, bacteria, and fungi; and concentrated to a volume that could be tested in cell culture. Cytotoxicity was also a concern. Studies at the FRI and some other laboratories addressed all of these challenges. The FRI group was the World Health Organization's Collaborating Center for Food Virology for many years. Other topics studied were virus inactivation as functions of temperature, time, matrix, disinfectants, and microbial action; peroral and ex-vivo infectivity; and the suitability of various virus surrogates for environmental monitoring and inactivation experiments. Detection of noroviruses and hepatitis A virus required molecular methods, most often RT-PCR. When it was found that inactivated virus often gave the same RT-PCR signal as that of infectious virus, sample treatments were sought, which would prevent falsepositive test results. Many laboratories around the world have taken up food and environmental virology since 1962, with the result that a dedicated journal has been launched.

Text in English

http://www.springerlink.com/content/v65724014177284w/fulltext.pdf



CONTROL CONTROL

CONTROL Food hygiene training: introducing the food hygiene training model

CONTROL Food Control 2010 Abr; 21 (4): 381-387

For many years social cognition models and workplace health education theories have been used to map out the variables and identify determinants of various health-related behaviours, including hand hygiene practice, food handling and the use of food thermometers. Whilst many models and theoretical frameworks identify specific determinants or variables of behaviour and organisational interactions this paper takes a holistic approach to food hygiene training and proposes a new theoretical framework. This framework (The Food Hygiene Training Model) encompasses and utilises various theoretical models and educational theories to recognise the various influences on the training, beliefs, motivations, and conditions required for food handlers to perform safe food handling practices in the workplace. Effective food hygiene training and the enactment of safe food handling practices learnt during training are critical elements in the control of food-borne illnesses throughout the world. Therefore, future food hygiene training strategies, if they are to be effective, should consider the adoption of the Food Hygiene Training Model, to aide overall improvements in food businesses, and thus, an overall reduction of foodborne illnesses.

Optimization of methods for detecting hepatitis A virus in food



Paula VS, Gaspar AMC, Villar LM Virology Food Environ Virol. 2010; 2: 47–52

Hepatitis A virus (HAV) is currently recognized as an important human food borne pathogen, and it is one of the most resistant enteric RNA viruses, is highly infectious, and may lead to widespread outbreaks. The aim of this study was to optimize the methods to detect HAV from artificially contaminated food. To this end, strawberry and lettuce were experimentally contaminated with HAV suspension containing 6×10^6 copies/ml. After contamination, HAV persistence and washing procedure were evaluated at 0, 1, 3, 7, and 9 days of storage. Five elution buffers (PBS (pH 7.4)/0.1% Tween80; 50 mM glycine/3% (wt/vol) beef extract (pH 9.5); PBS (pH 7, 4); 25 mM glycine/0.1 Tween80; and 1 M sodium bicarbonate) were used to elute the virus, and qualitative and quantitative PCR were used for HAV detection. HAV was detected by qualitative and quantitative PCR using any of the five elution buffers, but PBS was the most effective. Even after washing, HAV was detected up to 9 days after contamination by quantitative PCR. Quantitative PCR was more sensitive than qualitative PCR since samples containing viral load lower than 1.4×10^3 copies/ml could not be detected by qualitative PCR. Quantitative PCR can be used for rapid detection of food borne viruses and will help in the monitoring and control of food borne disease.

Text in English



CONTROL Selection of critical factors for identifying emerging food safety risks in dynamic food production chains

van Asselt ED, Meuwissen MPM, van Asseldonk MAPM, Teeuw J, van der Fels-Klerx HJ CONTROL Food Control 2010 Jun; 21 (6): 919-926

A pro-active emerging risk identification system starts with the selection of critical factors related to the occurrence of emerging hazards. This paper describes a method to derive the most important factors in dynamic production chains starting from a gross list of critical factors. The method comprised the semi-quantitative evaluation of the critical factors for a relatively novel product on the Dutch market and a related traditional product. This method was tested in an expert study with three case studies. The use of group discussion followed by individual ranking in an expert study proved to be a powerful tool in identifying the most important factors for each case. Human behaviour (either producers' behaviour or human knowledge) was the most important factor for all three cases. The expert study showed that further generalization of critical factors based on product characteristics may be possible.

Text in English



CONTROL Sociodemographic inequalities and outbreaks of foodborne diseases: An ecologic study

CONTROL Broner S, Torner N, Dominguez A, Martínez A, Godoy P, The Working Group for the Study of Outbreaks of Acute Gastroenteritis in Cataloniathe

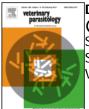
CONTROL Food Control 2010 Jun; 21 (6): 947-951

Reducing disparities in health is a significant health policy goal and so improving knowledge on differences in the distribution of health problems is needed. The aim of this study is to evaluate the relationship between the incidence of foodborne disease outbreaks (FBDO) and demographic-

socioeconomic characteristics. Association between outbreak incidence rate (IR) and demographic and socioeconomic features such as age >65 and gender, income, higher education, unemployment, household tasks and mean household size were studied. A total of 181 FBDO (IR: 2.59 outbreaks per million inhabitants) were recorded in Catalonia, 43.6% in food-services and 42.5% in household. Unemployment, female, ≥65y, higher education and household tasks were associated to lower FBDO risk. Educational programmes addressed at the increasing number of elderly and less favoured populations could avoid incorrect practices that facilitate community cases of FBD and may contribute to reduce disparities in health.

Text in English

Leishmaniasis



Detection of Leishmania (Leishmania) amazonensis and Leishmania (Leishmania) infantum chagasi in Brazilian bats

Savani ES, de Almeida MF, de Oliveira Camargo MC, D'Auria SR, Silva MM, de Oliveira ML, Sacramento D

Vet Parasitol. 2010 Feb; 168 (1-2): 5-10

Although bats are one of the most abundant mammals in the new world and are present in virtually all ecosystems, including urban and peri-urban environments, few studies have investigated the role of these animals in the epidemiological chain of leishmaniosis. Here, we report a study of 683 bats captured in São Paulo county (southeastern from Brazil), which were screened by serology, parasitologic methods and polymerase chain reaction (PCR) for trypanosomatids. The indirect immunofluorescent antibody test demonstrated that 0.9% of bats react positively for leishmaniosis and PCR detected the presence of DNA of Leishmania (Leishmania) amazonensis in 18 bats and Leishmania (Leishmania) infantum chagasi in 3 specimens. These results indicate that further studies are necessary to evaluate the role of bats in maintenance of the Leishmania life cycle, especially in areas where these diseases are endemic.

Text in English

Leptospirosis



Monitoring Leptospira strain collections: the need for quality control

Cerqueira GM, McBride AJ, Queiroz A, Pinto LS, Silva EF, Hartskeerl RA, Reis MG, Ko AI, Dellagostin AO

Am J Trop Med Hyg. 2010 Jan; 82 (1): 83-7

The purpose of this study was to perform a 16S sequence-based quality control of two Leptospira strain collections. 16S rRNA gene sequencing was used to verify two Leptospira reference collections provided by the World Health Organization and maintained at a reference laboratory for leptospirosis in Brazil. Among the 89 serovars evaluated, four conflicting strains were identified in one of the collections. Although 16S rRNA gene sequencing cannot identify Leptospira beyond the species level, it is suitable for the identification of contamination and quality control of leptospiral reference collections. This study highlights the importance of the availability of high-quality 16S rRNA sequences in public databases. In addition, it emphasizes the need for periodical verifications and quality control of Leptospira reference collections.

Prevención de Accidentes por Mordeduras de Serpientes / Prevention of Accidents by Snake Bite



Manual para la identificación, prevención y tratamiento de mordeduras de serpientes venenosas en Centroamérica, Volumen I: Guatemala OPS

2009

En Guatemala la mayoría de la población se dedica a la agricultura; además, las condiciones climáticas del país han permitido que las serpientes venenosas se distribuyan a lo largo y ancho del territorio. Lo anterior da lugar a que las personas que viven en las áreas rurales y en las orillas de las zonas urbanas se encuentren en riesgo de sufrir accidentes por mordeduras de estos reptiles. Por ello es importante describir y normar el tratamiento adecuado para esta clase de envenenamiento, de manera que al paciente se le brinde mejor atención en los centros a donde acude en busca de auxilio. Asimismo, se resalta la importancia de identificar el animal que ocasionó el accidente. Aún se desconoce y se presta poca atención al riesgo que implica una mala práctica en el manejo de este tipo de accidente, desde el momento que ocurre hasta el tratamiento en los centros de salud u hospitales nacionales o privados. Por ello surgió la iniciativa de preparar este Manualde identificación, prevención y tratamiento de mordeduras de serpientes venenosas de Guatemala; el cual fue desarrollado por la Organización Panamericana de la Salud -OPS- en coordinación con el Programa Nacional de Rabia y Zoonosis del Ministerio de Salud Pública y Asistencia Social-MSPAS- y el Museo de Historia Natural de la Universidad de San Carlos de Guatemala -MUSHNAT-, con el propósito de brindar suficiente información que apoye la correcta atención y el tratamiento eficaz del paciente mordido por serpiente venenosa. Se espera que la información contenida en el manual sea de utilidad al profesional de la salud al momento de atender casos de envenenamiento causado por serpientes y que contribuya a la adecuada recuperación de los pacientes que han tenido un encuentro con estos animales. Además, que brinde la oportunidad de conocer, aprender a respetar y convivir con estos organismos que forman parte de la diversidad biológica de este país; la que lo hace privilegiado en el planeta.

Text in Spanish

http://bvs1.panaftosa.org.br/local/file/textoc/OPS-serpientes-venenosas-prevencion-tratamiento-Guatemala.pdf

Rabia / Rabies



The Newsletter of the Alliance for Rabies Control Issue 16, February 2010

It contains evaluation of the World Rabies Day 2009 campaign, articles about rabies in Israel, SE Asia, Peru and Haiti, a rabies awareness survey in Asia, a novel rabies control program in Sri Lanka, WRD activities in Iraq and PAHO and other news about rabies and the work of the Alliance.

Text in English

http://www.rabiescontrol.net/ARCnewsletter16.pdf

Servicios Diagnosticos / Diagnostic Services



Monitoring and investigating natural disease by veterinary pathologists in diagnostic laboratories

O'Toole D

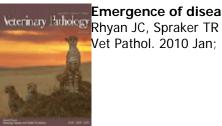
Vet Pathol. 2010 Jan; 47 (1): 40-4

Many emerging diseases in animals are initially recognized by diagnostic pathologists in animal health laboratories using routine laboratory submissions, in conjunction with clinical veterinarians and wildlife biologists. Familiar recent examples are chronic wasting disease, bovine spongiform encephalopathy, West Nile encephalomyelitis in North America, and postweaning multisystemic wasting syndrome in pigs. The recognition of new diseases in animals requires that the curiosity of diagnosticians be articulated with the capacity of animal health laboratories to create effective diagnostic teams, solicit additional cases from the field at minimal cost to clients, and develop relationships with basic researchers. Bovine neosporosis is used as an example to illustrate how a disease investigation triggered by routine clinical accessions can have international ramifications. Between the late 1980s and 1995, diagnosticians with California's animal health laboratory system identified neosporosis as a cause of reproductive wastage in cattle, characterized the lesions, isolated the agent, defined routes of transmission, met Koch's postulates, and developed diagnostic assays. Diagnostic pathologists catalyzed the process. The neosporosis investigation in California suggests useful attributes of veterinary diagnostic laboratories that pursue emerging diseases identified through routine laboratory accessions.

Text in English

http://vet.sagepub.com/content/47/1/40.full.pdf+html

Zoonosis / Zoonoses



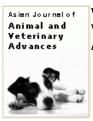
Emergence of diseases from wildlife reservoirs

Vet Pathol. 2010 Jan; 47 (1): 34-9

Interest in the epidemiology of emerging diseases of humans and livestock as they relate to wildlife has increased greatly over the past several decades. Many factors, most anthropogenic, have facilitated the emergence of diseases from wildlife. Some livestock diseases have "spilled over" to wildlife and then "spilled back" to livestock. When a population is exposed to an infectious agent, depending on an interaction of factors involving the host, agent, and environment, the population may be resistant to infection or may become a dead-end host, a spillover host, or a maintenance host. Each exposure is unique; the same species of host and agent may respond differently in different situations. Management actions that affect the environment and behavior of a potential host animal may allow the emergence of a new or as yet undetected disease. There are many barriers in preventing, detecting, monitoring and managing wildlife diseases. These may include political and legal hurdles, lack of knowledge about many diseases of wildlife, the absence of basic data on wildlife populations, difficulties with surveillance, and logistical constraints. Increasing interaction between wildlife and humans or domestic animals may lead to disease emergence and require innovative methods and strategies for disease surveillance and management in wildlife.

Text in English

http://vet.sagepub.com/content/47/1/34.full.pdf+html



Viral zoonosis: a comprehensive review

Venkatesan G, Balamurugan P, Gandhale PN, Singh RK, Bhanuprakash V Asian J Anim Vet Adv. 2010: 5: 77-92

Zoonoses are human diseases caused by animal pathogens or animal diseases that are transmissible to humans. Zoonotic pathogens identified are mostly viral origin and are emerging and reemerging. Zoonotic viral infections are grouped based on the type of infection they produce in natural host. Some are associated with encephalitis/hemorrhages and others may cause only local lesions like rashes and arthalgia. Transmission of these viruses usually involves arthropod vectors, which sometime act either as mechanical and/or biological vectors. Some zoonotic agents may be transmitted directly through animal bite or close contact with infected animals or fomites. The zoonotic microbes continue to evolve and adapt with tremendous acceleration and expansion of global trade, human movement and population explosion for efficient adaptation in new host and ecosystem results in catastrophic effects. They continue to cause health hazards in most parts of world and are economically important and public health concern. Control of zoonotic diseases and protection of public health are challenging tasks as the world population is increasing proportionately. The prevention of these infections depends on improved diagnosis and highly effective therapeutics/prophylactics. The collective effort of professionals from medical and veterinary and others is necessary to combat these zoonotic infections. In this review most important zoonotic infections along with their specific etiology, transmission (role of wild-life) manifestations and epidemiology and control/preventive measures are described, so as to create awareness to the scientific/public health community.

Text in English

http://scialert.net/gredirect.php?doi=ajava.2010.77.92&linkid=pdf

Eventos / Events

EuFMDWeek2010
28 September - 1 October 2010
Vienna, Austria
http://www.ages.at/eufmd-week2010/index.html

First OIE Global Conference on Veterinary Legislation 7-9 December 2010
Djerba, Tunísia
http://www.oie.int/eng/A_LEG_VET2010/Home_eng.htm





Salud Pública Veterinaria Centro Panamericano de Fiebre Aftosa Veterinary Public Health
Pan American Foot and Mouth Disease Center

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