CEDOC Informativo/Newsletter

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Centro de Documentación / Documentation Center

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

Com o tema principal **Informação e Conhecimento Científico para a Inovação em Saúde**, o CRICS8 será realizado de 16-19 setembro, 2008 no Rio de Janeiro, Brasil.
CRICS é reconhecido internacionalmente como um congresso inovador em informação científica e técnica e comunicação, que aborda periodicamente os últimos avanços tecnológicos regionais e internacionais. Abrange os campos de informação, gestão do conhecimento e pesquisa em evidências, comunicação científica, biblioteconomia, ciência da informação, metodologias e tecnologias de informação e suas aplicações para o desenvolvimento da pesquisa em saúde, educação e sistemas de atenção à saúde.
http://www.crics8.org/php/index.php?lang=pt

Con el tema principal **Información y Conocimiento Científico para la Innovación en Salud**, el CRICS8 ira celebrarse en los días 16 a 19 de septiembre de 2008, en Rió de Janeiro, Brasil.
El CRICS es reconocido internacionalmente como un congreso innovador en información científica y técnica y comunicación, que aborda periódicamente los últimos adelantos tecnológicos regionales e internacionales. Cubre los campos de información, gestión del conocimiento e investigación en evidencias, comunicación científica, bibliotecología, ciencia de información, metodologías y tecnologías de información y sus aplicaciones para el desarrollo de la investigación en salud, educación y sistemas de atención de salud.
http://www.crics8.org/php/index.php?lang=es

With the main theme **Scientific Information and Knowledge for Innovation in Health**, the CRICS8 will be held from 16-19 September 2008, in Rio de Janeiro, Brazil.
CRICS is internationally recognized as an innovative congress in scientific and technical information and communication that periodically addresses the regional and international state-of-the-art. It covers the fields of information, knowledge and research evidence management, scientific communication, librarianship, information science, methodologies and information technologies and its applications for the development of health research, education and health care systems.
http://www.crics8.org/php/index.php?lang=en

Informaciones disponibles en formato electrónico / Information available in electronic format

Fiebre Aftosa /Foot-and-Mouth Disease

Foot-and-mouth disease vaccine potency testing in cattle using homologous and heterologous challenge strains: Precision of the "Protection against Podal Generalisation" test
Goris N, Maradei E, D'Aloia R, Fondevila N, Mattion N, Perez A, Smitsaart E, Nauwynck HJ, La Torre J, Palma E, De Clercq K
Vaccine 2008 Jun; 26 (27-28): 3432-7

The level of protection conferred by foot-and-mouth disease (FMD) vaccines in primovaccinated animals primarily depends on the potency of the vaccine and the relatedness of the vaccine strain and circulating field isolate. The "Gold Standard" FMD vaccine potency test is the in vivo test performed in the target species. The objective of the study was to determine the precision of the in vivo "Protection against Podal Generalisation" (PPG) FMD vaccine potency test in cattle using homologous (vaccine quality control) and heterologous (vaccine matching) viral challenge. The overall level of protection induced by the A(24) Cruzeiro/Brazil/55 vaccine used in six homologous PPG tests was 88.5%. Vaccine accordance (VACC) and vaccine concordance (VCON) were estimated to be 75.9% and 73.7%, respectively. In four heterologous challenge PPG tests, the overall level of cross-protection induced by the A(24) Cruzeiro/Brazil/55 vaccine against A Argentina/2001 challenge was 26.6%, with VACC and VCON values of 65.7% and 59.2%, respectively. Results indicate that the homologous PPG test is more reliable than the European Pharmacopoeia potency test, but that a larger number of animals should be used in order to increase the test's statistical power. In this regard, indirect alternative tests for vaccine potency and vaccine matching merit consideration.
Text in English

Production of monoclonal antibodies against whole virus particles of foot-and-mouth disease virus serotype O and A and their potential use in quantification of intact virus for vaccine manufacture
Yang M, Holland H, Clavijo A
Vaccine 2008

A double antibody sandwich ELISA for quantification of foot-and-mouth disease (FMD) whole virus particle was developed using two monoclonal antibodies (mAbs) against FMD virus (FMDV) serotype O and A. The antibody binding epitopes were characterized. The two mAbs reacted with all of the tested FMDV strains. The use of these two mAbs in the sandwich ELISA will allow the quantification of FMD whole virus particles during vaccine manufacture.
Text in English (article in press)

A review of geospatial and ecological factors affecting disease spread in wild pigs: considerations for models of foot-and-mouth disease spread
Cowled B, Garner G
Prev Vet Med. 2008

Around the world, wild boar or feral pigs are infected by a range of infectious organisms with important, productivity, public health or economic consequences. Consequently, the potential role of wild pigs in

outbreaks of important exotic diseases, like foot-and-mouth disease (FMD), has been a significant consideration in many countries. Disease modelling is one means to study the epidemiology of disease and has been used to assess the potential role of wild pigs in FMD incursions. Many of these models have been strategic in nature. They have contributed to a broad understanding of disease control in wild pigs (e.g. the concept of threshold densities and the need to cull pigs below this density for disease fadeout to occur), but have not incorporated many of the key drivers affecting disease behaviour. Some of these drivers include important ecological, behavioural and geospatial relationships, such as interaction between different host species and the distribution, density and connectivity of pig populations. New approaches to modelling disease spread such as spatial simulation models use spatial data and explicitly incorporate geospatial relationships. These approaches can provide useful quantitative models that can be used to explore mitigation strategies under specific disease outbreak conditions. However, to date, most studies have been limited by inadequate data, and computational issues or have not explored mitigation strategies. To inform management strategies for emergency epidemics such as FMD in wild pigs, there is scope to further develop and use models to explore a range of incursion scenarios and investigate the efficacy of different mitigation strategies.
Text in English (article in press)

Influenza Aviar / Avian Influenza

The evolutionary genetics and emergence of avian influenza viruses in wild birds
Dugan VG, Chen R, Spiro DJ, Sengamalay N, Zaborsky J, Ghedin E, Nolting J, Swayne DE, Runstadler JA, Happ GM, Senne DA, Wang R, Slemons RD, Holmes EC, Taubenberger JK
PLoS Pathog. 2008 May; 4(5): e1000076

We surveyed the genetic diversity among avian influenza virus (AIV) in wild birds, comprising 167 complete viral genomes from 14 bird species sampled in four locations across the United States. These isolates represented 29 type A influenza virus hemagglutinin (HA) and neuraminidase (NA) subtype combinations, with up to 26% of isolates showing evidence of mixed subtype infection. Through a phylogenetic analysis of the largest data set of AIV genomes compiled to date, we were able to document a remarkably high rate of genome reassortment, with no clear pattern of gene segment association and occasional inter-hemisphere gene segment migration and reassortment. From this, we propose that AIV in wild birds forms transient "genome constellations," continually reshuffled by reassortment, in contrast to the spread of a limited number of stable genome constellations that characterizes the evolution of mammalian-adapted influenza A viruses.
Text in English
http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=2387073&blobtype=pdf

Inocuidad de los Alimentos / Food Safety

Occurrence of Salmonella spp. in broiler carcasses from slaughter plants of São Paulo, Brazil
Tessari ENC, Cardoso ALSP, Kanashiro AMI, Stoppa GF|, Luciano RL, Castro AGM
Cienc. Rural 2008

In the last years the demand for safe food has turned into an increasing necessity for market. Besides, the absence of any microorganism responsible for zoonosis is a requirement of national and international rules. However, even with technological development broiler meat is still susceptible to bacteria contamination, especially *Salmonella*. The aim of this research was to study the occurrence of *Salmonella* in broiler carcasses, from São Paulo slaughter plants ready to be distributed to the market. The research classified the samples according to presence or absence of *Salmonella* in 25g of the product. One hundred and sixteen frozen broiler carcasses were collected and analyzed, using a conventional culture method, during one year (July 2006 - June 2007). A total of two (1.7%) samples presented *Salmonella* spp and one (0.8%) *Salmonella Enteritidis*, numbering three positive samples (2.5%). Although this research showed a lower contamination rate comparing to other studies, the results are still a concern to public health.
Text in Portuguese (article in press)
http://www.scielo.br/pdf/cr/2008nahead/a11cr244.pdf

Rabia / Rabies

Rabies in small animals
Lackay SN, Kuang Y, Fu ZF
Vet Clin North Am Small Anim Pract. 2008 Jul; 38 (4): 851-61

Rabies in small animals has been dramatically reduced in the United States since the introduction of rabies vaccination of domestic animals in the 1940s. As a consequence, the number of human rabies cases has declined to only a couple per year. During the past several years, the dog rabies variant has almost disappeared completely. Rabies in wildlife has skyrocketed, however. Each wildlife species carries its own rabies variant(s). These wildlife epizootics present a constant public health threat in addition to the danger of reintroducing rabies to domestic animals. Vaccination is the key to prevent rabies in small animals and rabies transmission to human beings.
Text in English

Viewpoint: management of human rabies
Wilde H, Hemachidha T, Jackson AC
Trans R Soc Trop Med Hyg. 2008

Rabies remains a serious public health problem in many developing countries. A case in the West received media attention with the recovery of an American teenager who had not received rabies post-exposure prophylaxis. This case confirmed that rabies is not an invariably fatal disease. Review of the literature revealed only two survivors with good neurological status in nearly 40 years. Both had neutralizing antibodies in cerebrospinal fluid at or shortly after presentation, but the usual diagnostic tests for rabies were negative, a rather unique finding. It is highly probable that these two children managed to mount an unusually effective early immune response to the infection that contributed to, or was responsible for, recovery. Curative efforts for human rabies using critical care resources should especially target patients who show early neutralizing antibody. More basic research is needed to develop effective therapies for human rabies.
Text in English (article in press)

Medicina Veterinária / Veterinary Medicine

La importancia social del profesional en Medicina Veterinaria
Serrano Novoa CA, Arcila Quiceno VH
REDVET Jun 2008; 9 (6)
Text in Spanish
http://www.veterinaria.org/revistas/redvet/n060608/060815.pdf

El artículo habla del profesional medico veterinario en el contexto actual.

Zoonosis / Zoonoses

Salmonelosis y campilobacteriosis, las zoonosis emergentes de mayor expansión en el mundo
Gutierrez Castillo AC, Paascg Martinez LH, Calderon Apodaca NL
Vet Méx. 2008 Mar; 39 (1): 81-90

En la actualidad, la salmonelosis y la campilobacteriosis son las zoonosis de mayor prevalencia en países desarrollados, debido a la contaminación de alimentos de origen animal. La propagación *de Salmonella enterica* serotipo Enteritidis y *Salmonella enterica* serotipo Typhimurium va en aumento a partir de la segunda mitad del siglo XX, cuando ocurrieron dos cambios mundiales en la epidemiología de la salmonelosis: el surgimiento de infecciones en humanos por *Salmonella* Enteritidis, y la múltiple resistencia a los antibióticos de cepas de *Salmonella* Typhimurium. La mayoría de los análisis retrospectivos sugieren que existe relación epidemiológica entre las aves y los humanos: La modernización de la avicultura y las exportaciones de aves progenitoras son de importancia en la diseminación *de Salmonella* Enteritidis. La campilobacteriosis es la enfermedad entérica bacteriana más común en países desarrollados. *Campylobacter jejuni* es la causa más frecuente de diarreas infecciosas agudas, y las fuentes de esta infección son principalmente productos avícolas. En la presente revisión se incluyen aspectos relevantes de taxonomía y patogenia de estos organismos, y se hace hincapié en la problemática del diagnóstico y detección, analizando las técnicas para detectar rápidamente la existencia de animales portadores. Finalmente, se discuten hallazgos preliminares aún no publicados que sugieren que la prevalencia de salmonelosis y campilobacteriosis en granjas avícolas mexicanas debe ser semejante a la de otros países que tienen avicultura tecnificada, y se recomiendan los estudios epidemiológicos para determinar la frecuencia de estas infecciones en humanos, derivadas del consumo de alimentos de origen aviar.
Text in Spanish
http://scielo.unam.mx/pdf/vetmex/v39n1/v39n1a7.pdf

Seminarios, Congresos, Eventos, Cursos / Seminars, Congress, Events, Courses

XXV World Buiatrics Congress
July 6-11, 2008
Budapest, Hungary
http://www.xxvwbc2008.com/

2nd Annual Rediscovering Biomarkers Conference
July 10-11, 2008
Boston, USA
http://gtcbio.com/conferenceDetails.aspx?id=124

3º Congresso Internacional do Boi de Capim
16-18 **Julho** 2008-06-12
Salvador, BA, Brasil
http://www.rdeventos.com.br/boidecapim/index.asp

29th World Veterinary Congress
July 27-31, 2008
Vancouver, Canadá
http://www.meet-ics.com/wvac2008

Organización Panamericana de la Salud
Oficina Regional de la Organización Mundial de la Salud

Pan American Health Organization
Regional Office of the World Health Organization

Proyecto de Salud Pública Veterinaria
Centro Panamericano de Fiebre Aftosa

Veterinary Public Health Project
Pan American Foot and Mouth Disease Center

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