**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**

*Veterinary public health activities in the Pan American Health Organization over the past 58 years: 1949-2007*

Belotto A, Held JH, Fernandes D, Alvarez E


The veterinary public health activities of the Pan American Health Organization (PAHO) over the past 58 years have been devoted to the strategic orientation and development of priorities for the health sector with three main strategic areas, as follows: surveillance, prevention and control of zoonoses, prevention of foodborne diseases and promotion of animal health to boost production and productivity and, consequently, food security and socio-economic development. For PAHO, the link between health and agriculture is undeniable and their integration essential.

**Text in English**


*Fiebre Aftosa / Foot-and-Mouth Disease*

*A comparison of predictions made by three simulation models of foot-and-mouth disease*

Dube C, Stevenson MA, Garner MG, Sanson RL, Corso BA, Harvey N, Griffin J, Wilesmith JW, Estrada C


AIMS: To describe results of a relative validation exercise using the three simulation models of foot-and-mouth disease (FMD) in use by the quadrilateral countries (QUADS; Australia, Canada, New Zealand, and United States of America; USA). METHODS: A hypothetical population of farms was constructed and, following the introduction of an FMD-like disease into a single farm, spread of disease was simulated using each of the three FMD simulation models used by the QUADS countries. A series of 11 scenarios was developed to systematically evaluate the key processes of disease transmission and control used by each of the three models. The predicted number of infected units and the size of
predicted outbreak areas for each scenario and each model were compared using the Kruskal-Wallis test. Agreement among the three models in terms of geographical areas predicted to become infected were quantified using Fleiss' Kappa statistic. RESULTS: Although there were statistically significant differences in model outputs in terms of the numbers of units predicted to become infected, the temporal onset of infection throughout the simulation period, and the spatial distribution of infected units, these differences were generally small and would have resulted in the same (or similar) management decisions being adopted in each case. CONCLUSIONS: Agreement among the three models in terms of the numbers of premises predicted to become infected, the temporal onset of infection throughout the simulation period, and the spatial distribution of infected premises provides evidence that each of the model developers are consistent in their approach to simulating the spread of disease throughout a population of susceptible individuals. This consistency implies that the assumptions taken by each development team are appropriate, which in turn serves to increase end-user confidence in model predictions. CLINICAL RELEVANCE: Relative validation is one of a number of steps that can be undertaken to increase end-user confidence in predictions made by infectious disease models.

**Text in English**

**Description of recent foot and mouth disease outbreaks in nonendemic areas: exploring the relationship between early detection and epidemic size**
Mclaws M, Ribble C

The objective of this investigation was to describe the detection of foot and mouth disease (FMD) outbreaks in nonendemic areas, and to consider how events early in an epidemic influence the epidemic's course. We identified 24 epidemics that occurred between 1992 and 2003 in areas officially considered free of FMD. We obtained information about these epidemics from many sources, including the scientific literature, the grey (non peer-reviewed) literature, and individuals involved with the outbreaks. While most of the epidemics consisted of fewer than 150 infected premises, there were 4 extremely large epidemics, each consisting of more than 2000 infected premises. There was no direct relationship between the time to detection and either the total number of infected premises or the number of animals killed for disease control purposes. We believe that the movement of infected animals through markets was the most critical factor that contributed to the unusual magnitude of the very large epidemics.

**Text in English**

**Applying the scientific method when assessing the influence of migratory birds on the dispersal of H5N1**
Flint PL

ABSTRACT: BACKGROUND: The role of wild birds in the dispersal of highly pathogenic avian influenza virus H5N1 continues to be the subject of considerable debate. However, some researchers functionally examining the same question are applying opposing null hypotheses when examining this issue. DISCUSSION: I describe the correct method for establishing a null hypothesis under the scientific method. I suggest that the correct null hypothesis is that migratory birds can disperse this virus during migration and encourage researchers to design studies to falsify this null. Finally, I provide several examples where statements made during this debate, while strictly true, are not generally informative or are speculative. SUMMARY: By adhering to the scientific method, definitive answers regarding the role of wild birds in the dispersal of highly pathogenic viruses will be reached more effectively.

**Text in English**

**Zero tolerances in food and animal feed–Are there any scientific alternatives? A European point of view on an international controversy**
Toxicol Lett. 2007 Dec; 175 (1-3): 118-35
A number of zero tolerance provisions are contained in both food and animal feed law, e.g. for chemical substances whose occurrence is not permitted or is directly prohibited in food or animal feed. In the European Union, bans of this kind were introduced to give consumers and animals the greatest possible protection from substances with a possible hazard potential within the intendment of the hazard prevention principles and current precautionary measures. This also applies to substances for which an acceptable daily intake cannot be derived and a maximum residue limit cannot, therefore, be established, e.g. due to missing or inadequate toxicological data. Zero tolerances are also under discussion as trade barriers because their use has triggered numerous legal disputes. This paper draws together the results of an evaluation of alternative risk assessment methods to be used for the risk assessment of substances to which currently only zero tolerances apply. It will demonstrate that, depending on the available toxicological data, a scientifically sound risk assessment may still be possible. In this context, the two concepts - margin of exposure and threshold of toxicological concern - are very promising approaches. Until the scientific and sociopolitical discussions have been completed, it is essential that the principle of zero tolerances be upheld, especially for those substances which may be genotoxic carcinogens. In microbiology, there is no legal room for manoeuvre with regard to food safety criteria established for reasons of consumer health protection on the basis of scientific assessments.

**Text in English**

**Foodborne zoonoses due to meat: a quantitative approach for a comparative risk assessment applied to pig slaughtering in Europe**

Fosse J, Seeger H, Magras C

Vet Res. 2008 Jan-Feb; 39 (1):1

Foodborne zoonoses have a major health impact in industrialised countries. New European food safety regulations were issued to apply risk analysis to the food chain. The severity of foodborne zoonoses and the exposure of humans to biological hazards transmitted by food must be assessed. For meat, inspection at the slaughterhouse is historically the main means of control to protect consumers. However, the levels of detection of biological hazards during meat inspection have not been established in quantitative terms yet. Pork is the most frequently consumed meat in Europe. The aim of this study was to provide elements for quantifying levels of risk for pork consumers and lack of detection by meat inspection. Information concerning hazard identification and characterisation was obtained by the compilation and statistical analysis of data from 440 literature references. The incidence and severity of human cases due to pork consumption in Europe were assessed in order to calculate risk scores. A ratio of non-control was calculated for each biological hazard identified as currently established in Europe, i.e. the incidence of human cases divided by the prevalence of hazards on pork. *Salmonella enterica*, *Yersinia enterocolitica* and *Campylobacter* spp. were characterised by high incidence rates. *Listeria monocytogenes*, *Clostridium botulinum* and *Mycobacterium* spp. showed the highest severity scores. The three main high risk hazards involved in foodborne infections, *Y. enterocolitica*, *S. enterica* and *Campylobacter* spp. are characterised by high non-control ratios and cannot be detected by macroscopic examination of carcasses. New means of hazard control are needed to complement the classical macroscopic examination.

**Text in English**

**Rabia / Rabies**

**Rabies vaccines. WHO position paper**

WHO

Wkly Epidemiol Rec. 2007 Dec 7; 82 (49-50): 425-35

**Text in English**


**First report of rabies in vampire bats (Desmodus rotundus) in an urban area, Ubatuba, São Paulo state, Brazil**

Ferraz C, Achkar SM, Kotait I


The purpose of this report is to record the first case of a hematophagous bat (Desmodus rotundus) infected with rabies virus in an urban area in Brazil. To the authors' knowledge, this is the first such case in Latin America. After discovering a bat in his garden at 10 o'clock in the morning, a resident of Ubatuba municipality asked the Zoonosis Control Center team to visit his home. The animal was caught alive on
the same day and sent to the Pasteur Institute laboratory, where it was identified as a Desmodus rotundus specimen. Standard tests for rabies diagnosis were carried out (direct immunofluorescence and viral isolation), and the results were positive. The presence of different species of (primarily insectivorous) bats in urban areas represents a serious public health problem. This case, however, is indicative of a much greater risk because the species in question has hematophagous habits, what means this animals has a low energy reserves and, therefore, its need to feed daily

Text in English

Genetic analysis of phosphoprotein and matrix protein of rabies viruses isolated in Brazil
Kobyashi H, Okuda H, Nakamura K, Sato G, Itou T, Carvalho AA, Silva MV, Mota CS, Ito FH, Sakai T

To investigate the genetic characteristics of phosphoprotein (P) and matrix protein (M) genes of variable rabies virus (RV) prevalent in Brazil, the authors genetically characterized the P and M genes from 30 Brazilian RV field isolates. Phylogenetic analysis based on the P and M genes revealed the presence of six RV variants that consisted primarily of three insectivorous bats, the vampire bat, dog and fox in Brazil. Specific amino acid substitutions corresponding to these phylogenetic lineages were observed, with Asp(42) and Glu(62) in the P protein found to be characteristic of Brazilian chiroptera- and carnivora-related RVs, respectively. Amino acid sequence motifs predicted to associate with a viral function in the P and M proteins were conserved among Brazilian RV variants.

Text in English
http://www.jstage.jst.go.jp/article/jvms/69/11/1145/_pdf

Salud Pública Veterinaria / Veterinary Public Health

A personal history of veterinary public health in the Pan American Health Organization
Steele JA

The introduction of disease into the New World changed both flora and fauna. The need for coordinated veterinary public health activities was highlighted when anthrax and encephalitis were reported in native populations. The Pan American Health Organization has been a proponent of public health and animal health since its inception. Neither discipline can be successful without the other.

Text in English

Seminarios, Congresos, Eventos / Seminars, Congress, Events

35ª Reunión Ordinaria de la Comisión Sudamericana para la Lucha contra la Fiebre Aftosa (XXXV COSALFA )
13-14 Marzo 2008
Porto Alegre - RS – Brasil
http://www.panaftosa.org.br/inst/eventos_cosalfa.htm

Seminario Internacional “Sudamérica Libre de Fiebre Aftosa: Nuevos Paradigmas”
10-11 Marzo 2008
Porto Alegre - RS – Brasil
http://www.panaftosa.org.br/inst/texto_seminario_poa.htm

15ª Reunión Interamericana a Nivel Ministerial en Salud y Agricultura (RIMSA15)
11-12 Junio 2008
Rio de Janeiro, RJ, Brasil
http://www.panaftosa.org.br/inst/rimsa/rimsa-home.htm
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