

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



Terrestrial Animal Health Code 2010

The aim of the OIE Terrestrial Animal Health Code (hereafter referred to as the Terrestrial Code) is to assure the sanitary safety of international trade in terrestrial animals (mammals, birds and bees) and their products. This is achieved through the detailing of health measures to be used by the veterinary authorities of importing and exporting countries to avoid the transfer of agents pathogenic to animals or humans, while avoiding unjustified sanitary barriers.

<http://www.oie.int/en/international-standard-setting/terrestrial-code/access-online/>

<http://www.oie.int/es/normas-internacionales/codigo-terrestre/acceso-en-linea/>

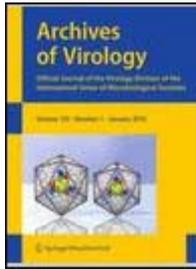
Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2010

The *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals (Terrestrial Manual)* aims to facilitate international trade in animals and animal products and to contribute to the improvement of animal health services world-wide. The principal target readership is laboratories carrying out veterinary diagnostic tests and surveillance, plus vaccine manufacturers and regulatory authorities in Member Countries. The objective is to provide internationally agreed diagnostic laboratory methods and requirements for the production and control of vaccines and other biological products.

<http://www.oie.int/international-standard-setting/terrestrial-manual/access-online/>

Informaciones disponibles en formato electrónico / Information available in electronic format

Adjuvantes / Adjuvants



Adjuvants and delivery systems in veterinary vaccinology: current state and future developments

Heegaard PM, Dedieu L, Johnson N, Le Potier MF, Mockey M, Mutinelli F, Vahlenkamp T, Vascellari M, Sørensen NS
Arch Virol. 2011 Feb; 156 (2): 183-202

Modern adjuvants should induce strong and balanced immune responses, and it is often desirable to induce specific types of immunity. As an example, efficient Th1-immunity-inducing adjuvants are highly in demand. Such adjuvants promote good cell-mediated immunity against subunit vaccines that have low immunogenicity themselves. The development of such adjuvants may take advantage of the increased knowledge of the molecular mechanisms and factors controlling these responses. However, knowledge of such molecular details of immune mechanisms is relatively scarce for species other than humans and laboratory rodents, and in addition, there are special considerations pertaining to the use of adjuvants in veterinary animals, such as production and companion animals. With a focus on veterinary animals, this review highlights a number of approaches being pursued, including cytokines, CpG oligonucleotides, microparticles and liposomes.

Text in English

Diarrea Viral Bovina / Bovine Viral Diarrhea



Diarréia viral bovina: patogenia e diagnóstico – revisão da literatura

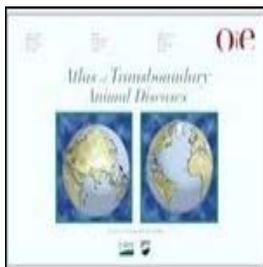
Silva MVM, Nogueira JL, Junior VP, Fernandes RA
Revista Científica Eletrônica de Medicina Veterinária 2011; 9 (16)

Bovine viral diarrhoea virus (BVD) is considered a most important pathogen of cattle. The BVD is a disease caused by a *Pestivirus* and transmitted by direct or indirect contact. The bovine has a variability in their clinical signs and may have fever, diarrhoea, erosions of the oral cavity, reproductive failure, abortion and rapid death of the animal. The diagnosis is based on clinical and pathological signals. The overall knowledge about BVD infection in Brazil has grown considerably in the last years. The study about BVD, reporting the pathogenesis and diagnostic methods exist.

Text in Portuguese

<http://www.revista.inf.br/veterinaria/revisao/RV02.pdf>

Enfermedades Animales Transfronterizas / Transboundary Animal Diseases



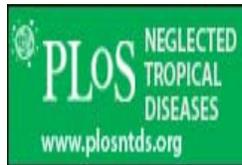
Atlas of transboundary animal diseases

Fernandez P, White W
2010

The *Atlas of Transboundary Animal Diseases* is intended to assist Veterinary Service field staffs involved in animal disease surveillance and diagnostics in identifying important transboundary diseases of livestock. The focus of this publication is on key images of clinical signs and post mortem lesions associated with 29 OIE notifiable animal diseases supplemented by basic disease information from the OIE technical disease cards. Input for this consolidated reference volume comes from OIE's global network of veterinary epidemiologists and diagnostic experts and the support of APHIS-USDA.

Text in English

Enfermedades Desatendidas / Neglected Diseases



Elimination of Neglected Diseases in Latin America and the Caribbean: A Mapping of Selected Diseases

Schneider MC, Aguilera XP, Barbosa da Silva Junior J, Ault SK, Najera P, Martinez J, Requejo R, Nicholls RS, Yadon Z, Silva JC, Leanes LF, Periago MR
PLoS Negl Trop Dis. 2011 Feb; 5 (2): e964

In Latin America and the Caribbean, around 195 million people live in poverty, a situation that increases the burden of some infectious diseases. Neglected diseases, in particular, are often restricted to poor, marginalized sections of the population. Tools exist to combat these diseases, making it imperative to work towards their elimination. In 2009, the Pan American Health Organization (PAHO) received a mandate to support the countries in the Region in eliminating neglected diseases and other poverty-related infections. The objective of this study is to analyze the presence of selected diseases using geoprocessing techniques. Five diseases with information available at the first sub-national level (states) were mapped, showing the presence of the disease ("hotspots") and overlap of diseases ("major hotspots"). In the 45 countries/territories (approximately 570 states) of the Region, there is: lymphatic filariasis in four countries (29 states), onchocerciasis in six countries (25 states), schistosomiasis in four countries (39 states), trachoma in three countries (29 states), and human rabies transmitted by dogs in ten countries (20 states). Of the 108 states with one or more of the selected diseases, 36 states present the diseases in overlapping areas ("major hotspots"). Additional information about soil-transmitted helminths was included. The analysis suggests a majority of the selected diseases are not widespread and can be considered part of an unfinished agenda with elimination as a goal. Integrated plans and a comprehensive approach, ensuring access to existing diagnostic and treatment methods, and establishing a multi-sectoral agenda that addresses social determinants, including access to adequate water and sanitation, are required. Future studies can include additional diseases, socio-economic and environmental variables.

Text in English

<http://www.plosntds.org/article/info%3Adoi%2F10.1371%2Fjournal.pntd.0000964>



A history of chagas disease transmission, control, and re-emergence in peri-rural la joya, Peru

Delgado S, Castillo Neyra R, Quispe Machaca VR, Ancca Juárez J, Chou Chu L, Verastegui MR, Moscoso Apaza GM, Bocángel CD, Tustin AW, Sterling CR, Comrie AC, Náquira C, Cornejo Del Carpio JG, Gilman RH, Bern C, Levy
PLoS Negl Trop Dis. 2011 Feb; 5 (2): e970

BACKGROUND: The history of Chagas disease control in Peru and many other nations is marked by scattered and poorly documented vector control campaigns. The complexities of human migration and sporadic control campaigns complicate evaluation of the burden of Chagas disease and dynamics of *Trypanosoma cruzi* transmission.

METHODOLOGY/PRINCIPAL FINDINGS: We conducted a cross-sectional serological and entomological study to evaluate temporal and spatial patterns of *T. cruzi* transmission in a peri-rural region of La Joya, Peru. We use a multivariate catalytic model and Bayesian methods to estimate incidence of infection over time and thereby elucidate the complex history of transmission in the area.

Of 1,333 study participants, 101 (7.6%; 95% CI: 6.2-9.0%) were confirmed *T. cruzi* seropositive. Spatial clustering of parasitic infection was found in vector insects, but not in human cases. Expanded catalytic models suggest that transmission was interrupted in the study area in 1996 (95% credible interval: 1991-2000), with a resultant decline in the average annual incidence of infection from 0.9% (95% credible interval: 0.6-1.3%) to 0.1% (95% credible interval: 0.005-0.3%). Through a search of archival newspaper reports, we uncovered documentation of a 1995 vector control campaign, and thereby independently validated the model estimates.

CONCLUSIONS/SIGNIFICANCE: High levels of *T. cruzi* transmission had been ongoing in peri-rural La Joya prior to interruption of parasite transmission through a little-documented vector control campaign in 1995. Despite the efficacy of the 1995 control campaign, *T. cruzi* was rapidly reemerging in vector populations in La Joya, emphasizing the need for continuing surveillance and control at the rural-urban interface.

Text in English

<http://www.plosntds.org/article/info%3Adoi%2F10.1371%2Fjournal.pntd.0000970>

Fiebre Aftosa / Foot and Mouth Disease



Fine mapping of a foot-and-mouth disease virus epitope recognized by serotype-independent monoclonal antibody 4B2

Yu Y, Wang H, Zhao L, Zhang C, Jiang Z, Yu L
J Microbiol. 2011 Feb; 49 (1): 94-101

VP2 is a structural protein of the foot-and-mouth disease virus (FMDV). In this study, a FMDV serotype-independent monoclonal antibody (MAb), 4B2, was generated. By screening a phage-displayed random 12-peptide library, we found positive phages displaying the consensus motif ETTXLE (X is any amino acid (aa)), which is highly homologous to (6)ETTLLE(11) at the N-terminus of the VP2 protein. Subsequently, a series of GST-fusion proteins expressing a truncated N-terminus of VP2 were examined by western blot analysis using the MAb 4B2. The results indicated that the motif (6)ETTLLE(11) of VP2 may be the minimal requirement of the epitope recognized by 4B2. Moreover, a 12-aa peptide (2) KKTEETTLLEDR(13) was shown to be the minimal unit of the epitope with maximal binding activity to 4B2. Alanine-scanning analysis demonstrated that Thr(7), Thr(8), and Leu(10) are the functional residues of the 4B2 epitope Glu(6) and Leu(9) are required residues, and Glu(11) plays a crucial role in the binding of MAb 4B2. The fine mapping of the epitope indicated that MAb 4B2 has the potential to be used in FMDV diagnosis.

Text in English

Influenza



Diagnóstico de virus de Influenza en mamíferos y aves

PANAFTOSA-OPS/OMS

Serie de Manuales Técnicos, 16

2010

El presente documento reúne todos los protocolos de las técnicas de laboratorio tanto serológicas, virológicas, y moleculares, como también los estudios de patogenicidad disponibles para el diagnóstico

de la Influenza, abarcando las cepas aviarias y suínas incluyendo la pandémica H1N1 2009.

Text in Spanish

<http://bvs1.panaftosa.org.br/local/File/textoc/SerManTec16.pdf>

Inocuidad de los Alimentos / Food Safety



Foodborne disease in 2011 - the rest of the story

Osterholm MT

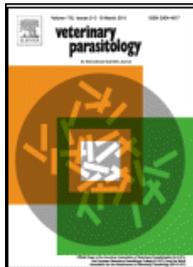
N Engl J Med. 2011 Feb

Recent media headlines might have you believe that our food supply is substantially more safe than it was a decade ago and about to get even safer. First, on December 15, 2010, the Centers for Disease Control and Prevention (CDC) announced a long-awaited reanalysis of the burden of foodborne illness in the United States and reported a substantial decrease in the estimated incidence of foodborne disease between 1999 and 2011. Then, on January 4, 2011, President Barack Obama signed into law the Food Safety Modernization Act, the first major legislation related to the food-safety authority of the Food and Drug . . .

Text in English

<http://www.nejm.org/doi/pdf/10.1056/NEJMp1010907>

Leishmaniasis



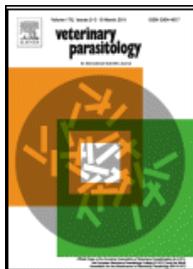
Eco-epidemiology of visceral leishmaniasis in the urban area of Paracatu, state of Minas Gerais, Brazil

Dias ES, Regina-Silva S, França-Silva JC, Paz GF, Michalsky EM, Araújo SC, Valadão JL, de Oliveira Lara-Silva F, de Oliveira FS, Pacheco RS, Fortes-Dias CL

Vet Parasitol. 2011 Mar; 176(2-3):101-11

The present study was developed in the urban area of Paracatu, an endemic city for the American visceral leishmaniasis in Brazil. A six-month canine survey was performed with 6295 domiciled dogs in 28 districts in that area and showed that 4.2% of those (267 dogs) were positive for VL by ELISA and IFAT serum assays. Prevalence ratios for canine VL varied between 1.2% and 16.1%, depending on the district under investigation. Fifteen dogs - 80% of which were clinically asymptomatic for VL - were submitted to a more detailed study that comprised direct parasitological examination and Leishmania kDNA amplification of tissue samples as well as two PCR-RFLP methods using myelocultures. Leishmania amastigotes or Leishmania DNA were detected in all dogs but one. The infecting species of Leishmania was identified in about 50% (7/15) of the sample dogs: Leishmania (Leishmania) chagasi in two of them and, unexpectedly, Leishmania (Leishmania) amazonensis in the remaining five. Three months after the end of confiscation and elimination of the VL-seropositive dogs in the 28 districts of Paracatu, a systematic entomological survey was performed in five of them. Six hundred and sixty five (665) phlebotomine sand flies were captured in total, from which 89.5% were identified as Lutzomyia longipalpis. The population density of that species increased during the rainy season. Other thirteen (13) species of phlebotomine sand flies were captured at varying percentages from 0.2 to 5.0%. It is worth noting that L. longipalpis females were predominantly intradomicile when compared to males, suggesting that the VL transmission cycle in Paracatu may be occurring inside home.

Text in English



Laboratory tests performed on *Leishmania* seroreactive dogs euthanized by the leishmaniasis control program

Silva DA, Madeira MF, Teixeira AC, de Souza CM, Figueiredo FB
Vet Parasitol. 2011 Feb

In 2008, in the west zone of Rio de Janeiro municipality-Brazil, the leishmaniasis control program identified 155 dogs with titers ≥ 40 by Indirect ImmunoFluorescence (IIF) on blood collected onto filter paper. The objective of this study was to describe the laboratory test findings performed in dogs euthanized by the leishmaniasis program control of Rio de Janeiro municipality. Dogs were examined, subjected to euthanasia and collection of clinical specimens. Parasite isolation was obtained in 29 animals: *Leishmania chagasi* was isolated in 14 dogs; *Leishmania braziliensis* was isolated in five dogs; *Trypanosoma caninum* was obtained in seven animals and one dog had mixed infection (*L. braziliensis* and *L. chagasi*). By Polymerase Chain Reaction, seventeen animals were positive in intact skin fragments. In the serological reassessment of serum samples, 28% and 22% were positive for IIF and enzyme immunoassay, respectively. Ninety-one (59%) dogs were negative for all tests performed in this study. The findings indicate that the visceral leishmaniasis control program needs to be adjusted in order to avoid non-infected dogs from being removed or permit that dogs infected with *L. chagasi* to remain undetected in endemic areas. **Text in English (article in press)**



Leishmaniose visceral – revisão de literatura

Brandão TGE, Montanha FP

Revista Científica Eletrônica de Medicina Veterinária 2011; 9 (16)

Protozoa of the genus *Leishmania* are the causal agents of visceral leishmaniasis. *Leishmania (Leishmania) chagasi* is the species found in Brazil. The disease affects humans and other animal species, but mainly dogs. The transmission between vertebrate hosts occurs through the bite of a phlebotomine. Clinical diagnosis of canine visceral leishmaniasis is difficult due to the variety of clinical manifestation that the disease may present. The clinical signs are not pathognomonic, bearing similarities to other infectious illnesses. Diagnosis confirmation is usually based on molecular, serological and parasitological methods, once the limitations of each method are known. The current review attempts to approach the etiopathogenesis, the symptoms and the different diagnostic methods of the disease.

Text in Portuguese

<http://www.revista.inf.br/veterinaria/revisao/RV08.pdf>

Eventos / Events

22nd International Conference on Rabies in the Americas (RITA XXII)

16- 21 October, 2011

San Juan, Puerto Rico

<http://www.ritaxii.org/>



Salud Pública Veterinaria
Centro Panamericano de Fiebre Aftosa



Veterinary Public Health
Pan American Foot and Mouth Disease Center

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<http://new.paho.org/panaftosa>

<http://bvs.panaftosa.org.br>

<http://bvs.panalimentos.org>

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