



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

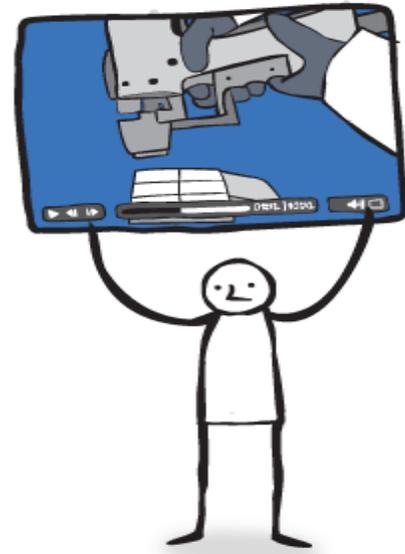
JoVE: Journal of Visualized Experiments

<http://www.jove.com>



Journal of Visualized Experiments (JoVE) is a peer reviewed, PubMed indexed journal devoted to the publication of biological, medical, chemical and physical research in a video format.

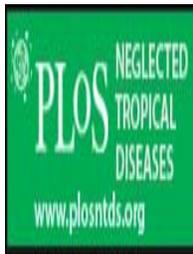
The Journal of Visualized Experiments (JoVE) was established as a new tool in life science publication and communication, with participation of scientists from leading research institutions. JoVE takes advantage of video technology to capture and transmit the multiple facets and intricacies of life science research. Visualization greatly facilitates the understanding and efficient reproduction of both basic and complex experimental techniques, thereby addressing two of the biggest challenges faced by today's life science research community: i) low transparency and poor reproducibility of biological experiments and ii) time and labor-intensive nature of learning new experimental techniques.



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Brucellosis / Brucellosis



The rose bengal test in human brucellosis: a neglected test for the diagnosis of a neglected disease

Díaz Ramón; Casanova Aurora; Ariza Javier; Moriyón Ignacio
PLoS neglected tropical diseases 2011; 5 (4): e950

Brucellosis is a highly contagious zoonosis affecting livestock and human beings. The human disease lacks pathognomonic symptoms and laboratory tests are essential for its diagnosis. However, most tests are difficult to implement in the areas and countries where brucellosis is endemic. Here, we compared the simple and cheap Rose Bengal Test (RBT) with serum agglutination, Coombs, competitive ELISA, Brucellacapt, lateral flow immunochromatography for IgM and IgG detection and immunoprecipitation with Brucella proteins. We tested 208 sera from patients with brucellosis proved by bacteriological isolation, 20 contacts with no brucellosis, and 1559 sera of persons with no recent contact or brucellosis symptoms. RBT was highly sensitive in acute and long evolution brucellosis cases and this related to its ability to detect IgM, IgG and IgA, to the absence of prozones, and to the agglutinating activity of blocking IgA at the pH of the test. RBT was also highly specific in the sera of persons with no contact with Brucella. No test in this study outperformed RBT, and none was fully satisfactory in distinguishing contacts from infected patients. When modified to test serum dilutions, a diagnostic titer >4 in RBT resulted in 87.4% sensitivity (infected patients) and 100% specificity (contacts). We discuss the limitations of serological tests in the diagnosis of human brucellosis, particularly in the more chronic forms, and conclude that simplicity and affordability of RBT make it close to the ideal test for small and

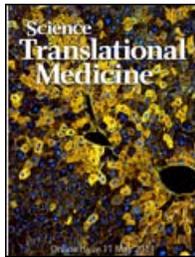
understaffed hospitals and laboratories.

Text in English

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3079581/pdf/pntd.0000950.pdf>

<http://www.plosntds.org/article/info%3Adoi%2F10.1371%2Fjournal.pntd.0000950>

Controle de Epidemia - Diagnostico Individual / Epidemic Control - Individual Diagnosing



Diagnosing the individual to control the epidemic

Medley GE

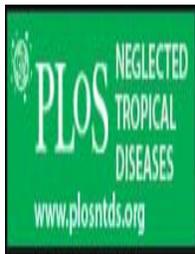
Sci Transl Med. 2011 May; 3 (82): 82ps18

When vaccination is not an option, the only way to actively control an epidemic is to identify infectious individuals and “remove” them (by treatment, quarantine, or culling). In a recent Science paper, Charleston et al. present data and an analysis suggesting that clinical diagnosis of foot-and-mouth disease is very closely linked in time to shedding of virus; as such, removal of clinically affected animals might be sufficient to control an epidemic. Although these results are for a veterinary disease, they are very pertinent for all infectious diseases, including those of humans. In this Perspective, we consider the role of experimental research in determining the biology of infection as well as the importance of diagnosis for epidemic control.

Text in English

<http://stm.sciencemag.org/content/3/82/82ps18.full.pdf>

Enfermedad de Chagas / Chagas Disease



Chagas disease has now gone global

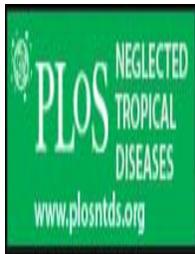
Tanowitz HB, Weiss LM, Montgomery SP

PLoS Negl Trop Dis 2011; 5 (4): e1136

Text in English

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3082509/pdf/pntd.0001136.pdf>

Equinococosis / Echinococcosis



Economic impact of cystic echinococcosis in Peru

Moro PL, Budke CM, Schantz PM, Vasquez J, Santivañez SJ, et al

PLoS Negl Trop Dis 2011; 5 (5): e1179

Background

Cystic echinococcosis (CE) constitutes an important public health problem in Peru. However, no studies

have attempted to estimate the monetary and non-monetary impact of CE in Peruvian society.

Methods

We used official and published sources of epidemiological and economic information to estimate direct and indirect costs associated with livestock production losses and human disease in addition to surgical CE-associated disability adjusted life years (DALYs) lost.

Findings

The total estimated cost of human CE in Peru was U.S.\$2,420,348 (95% CI:1,118,384–4,812,722) per year. Total estimated livestock-associated costs due to CE ranged from U.S.\$196,681 (95% CI:141,641–251,629) if only direct losses (i.e., cattle and sheep liver destruction) were taken into consideration to U.S.\$3,846,754 (95% CI:2,676,181–4,911,383) if additional production losses (liver condemnation, decreased carcass weight, wool losses, decreased milk production) were accounted for. An estimated 1,139 (95% CI: 861–1,489) DALYs were also lost due to surgical cases of CE.

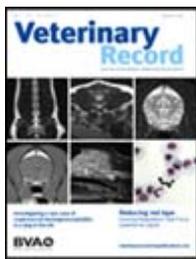
Conclusions

This preliminary and conservative assessment of the socio-economic impact of CE on Peru, which is based largely on official sources of information, very likely underestimates the true extent of the problem. Nevertheless, these estimates illustrate the negative economic impact of CE in Peru.

Text in English

<http://www.plosntds.org/article/info%3Adoi%2F10.1371%2Fjournal.pntd.0001179>

Fiebre Aftosa / Foot and Mouth Disease



Control of foot-and-mouth disease

Honhold N, Taylor N, Mansley S, Kitching P, Wingfield A, Hullinger P, Thrusfield M
Vet Rec. 2011 May; 168 (20): 541-2

We refer to the recent paper in *Science* by Charleston and others (2011) on the relationship between clinical signs and transmission for an infection with foot-and-mouth disease virus (FMDV) and to the News report of this paper in *Veterinary Record* (May 14, 2011, vol 168, p 498) . The results presented are interesting, and provide welcome support for conclusions derived from careful analysis of the field data from the 2001 epidemic of FMD in the UK (mentioned below), but we feel that they are not the breakthrough seemingly implied in the paper and the media reaction to it. We consider that the results must be interpreted with caution and that the conclusions to be drawn are more limited than suggested. First, the paper reports results using a single strain of FMDV (the strain responsible for the UK outbreak of 2001) to infect only one species of animal (cattle). However, and very importantly, it is well known that FMDV varies significantly between its many strains and ...

Text in English



Phylogenetic analysis of Foot-and-Mouth Disease Virus type O circulating in the Andean region of South America during 2002-2008

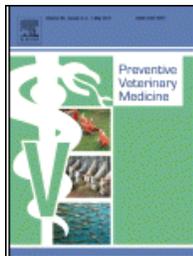
Malirat V, Bergmann IE, de Mendonça Campos R, Salgado G, Sánchez C, Conde F, Quiroga JL, Ortiz S
Vet Microbiol. 2011 Apr

At present, Foot-and-Mouth Disease (FMD) has been successfully controlled in most territories of South America, where only Ecuador and Venezuela remain as endemic countries. In this context, the precise

characterization of circulating viruses is of utmost importance. This work describes the first molecular epidemiology study performed with the complete VP(1)-coding region of 114 field isolates of FMD virus (FMDV) type O, collected in the Andean countries mainly during 2002-2008. Sequences were aligned and compared to isolates responsible for emergencies in the Southern Cone of the continent between the years 2000 and 2006, and to other representative type O viruses worldwide. The results showed that FMD type O viruses isolated in South America and analyzed up to date are placed in 11 different lineages within the Euro SA topotype. Five of these lineages included viruses circulating in Ecuador and Venezuela during 2002-2008. The last emergencies reported in already-free areas in the Andean region, showed close relationships with viruses circulating in these endemic countries. Andean lineages showed a clear separation from the unique lineage containing viruses responsible for the emergencies in the Southern Cone, reflecting the different livestock circuits and providing evidence that support the ecosystem dynamics in the region. A wide geographical dissemination of the same strain in short time intervals has been observed, pointing to animal movements as the most significant risk parameter. This fact, together with an important generation of viral variants in areas under weak control strategies, reinforce the need of stronger official controls, as well as for establishing multinational cooperative measures in the border areas.

Text in English (article in press)

Influenza Aviar / Avian Influenza



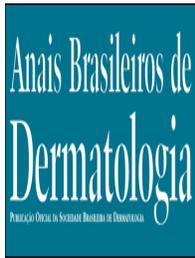
A scenario tree model for the Canadian Notifiable Avian Influenza Surveillance System and its application to estimation of probability of freedom and sample size determination

Christensen J, Stryhn H, Vallières A, El Allaki F
Prev Vet Med. 2011 May; 99 (2-4): 161-75

In 2008, Canada designed and implemented the Canadian Notifiable Avian Influenza Surveillance System (CanNAISS) with six surveillance activities in a phased-in approach. CanNAISS was a surveillance system because it had more than one surveillance activity or component in 2008: passive surveillance; pre-slaughter surveillance; and voluntary enhanced notifiable avian influenza surveillance. Our objectives were to give a short overview of two active surveillance components in CanNAISS; describe the CanNAISS scenario tree model and its application to estimation of probability of populations being free of NAI virus infection and sample size determination. Our data from the pre-slaughter surveillance component included diagnostic test results from 6296 serum samples representing 601 commercial chicken and turkey farms collected from 25 August 2008 to 29 January 2009. In addition, we included data from a sub-population of farms with high biosecurity standards: 36,164 samples from 55 farms sampled repeatedly over the 24 months study period from January 2007 to December 2008. All submissions were negative for Notifiable Avian Influenza (NAI) virus infection. We developed the CanNAISS scenario tree model, so that it will estimate the surveillance component sensitivity and the probability of a population being free of NAI at the 0.01 farm-level and 0.3 within-farm-level prevalences. We propose that a general model, such as the CanNAISS scenario tree model, may have a broader application than more detailed models that require disease specific input parameters, such as relative risk estimates.

Text in English

Leishmaniasis



American cutaneous leishmaniasis: clinical, epidemiological and laboratory studies conducted at a university teaching hospital in Campo Grande, Mato Grosso do Sul, Brazil

Murback ND, Hans Filho G, Nascimento RA, Nakazato KR, Dorval ME
An Bras Dermatol. 2011; 86 (1): 55-63

BACKGROUND: American cutaneous leishmaniasis is a disease with a wide variety of clinical manifestations that is expanding throughout Brazil, the state of Mato Grosso do Sul constituting a significant endemic area.

OBJECTIVES: To evaluate the clinical, epidemiological and laboratory characteristics of patients with American cutaneous leishmaniasis. Patients were recruited among those attending the Maria Aparecida Pedrossian Teaching Hospital of the Federal University of Mato Grosso do Sul, Brazil.

METHODS: This was a cross-sectional, observational study conducted using a descriptive and analytical approach. Data from patients suspected of having American cutaneous leishmaniasis who were receiving care at this institute between 1998 and 2008 and were referred to the institute's parasitology laboratory for confirmation of diagnosis were evaluated retrospectively. Clinical and laboratory criteria were taken into consideration for the inclusion of patients to the study.

RESULTS: Forty-seven patients were included in the study, the majority of whom were male and between 45 and 59 years of age. Most had the cutaneous form of the disease with a single, ulcerated lesion on exposed areas of the body, which had generally been present for periods of less than six months. Mucosal involvement increased with age and was highest in patients who had sought medical care at a later stage. The Montenegro skin test showed the highest sensitivity. Finding the parasite was more difficult in older lesions.

CONCLUSION: Suspicion of the disease at an early stage is of extreme importance for a precise diagnosis. A combination of parasitological and immunological tests renders laboratory diagnosis more reliable.

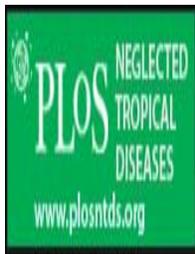
Text in English

http://www.scielo.br/pdf/abd/v86n1/en_v86n1a07.pdf

Text in Portuguese

<http://www.scielo.br/pdf/abd/v86n1/v86n1a07.pdf>

Rabia / Rabies



Evaluation of cost-effective strategies for rabies post-exposure vaccination in low-income countries

Hampson K, Cleaveland S, Briggs D.
PLoS Negl Trop Dis. 2011 Mar; 5 (3): e982

BACKGROUND: Prompt post-exposure prophylaxis (PEP) is essential in preventing the fatal onset of disease in persons exposed to rabies. Unfortunately, life-saving rabies vaccines and biologicals are often neither accessible nor affordable, particularly to the poorest sectors of society who are most at risk and upon whom the largest burden of rabies falls. Increasing accessibility, reducing costs and preventing delays in delivery of PEP should therefore be prioritized.

METHODOLOGY/PRINCIPAL FINDINGS: We analyzed different PEP vaccination regimens and evaluated their relative costs and benefits to bite victims and healthcare providers. We found PEP vaccination to be

an extremely cost-effective intervention (from \$200 to less than \$60/death averted). Switching from intramuscular (IM) administration of PEP to equally efficacious intradermal (ID) regimens was shown to result in significant savings in the volume of vaccine required to treat the same number of patients, which could mitigate vaccine shortages, and would dramatically reduce the costs of implementing PEP. We present financing mechanisms that would make PEP more affordable and accessible, could help subsidize the cost for those most in need, and could even support new and existing rabies control and prevention programs.

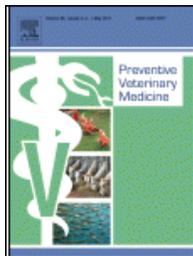
CONCLUSIONS/SIGNIFICANCE: We conclude that a universal switch to ID delivery would improve the affordability and accessibility of PEP for bite victims, leading to a likely reduction in human rabies deaths, as well as being economical for healthcare providers.

Text in English

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3050908/pdf/pntd.0000982.pdf>

<http://www.plosntds.org/article/info:doi/10.1371/journal.pntd.0000982>

Salud Animal / Animal Health



Animal health in the 21st century-A global challenge

Conraths FJ, Schwabenbauer K, Vallat B, Meslin FX, Füßel AE, Slingenbergh J, Mettenleiter TC
Prev Vet Med. 2011 May

On the occasion of the centenary of the Friedrich-Loeffler-Institut, a conference entitled 'Animal Health in the 21st Century' was held in Greifswald, Germany, on 11-13 October 2010 to discuss current and future challenges regarding the global situation regarding infectious animal diseases and zoonoses, animal breeding, animal nutrition and animal welfare. Particular attention was paid to the impact of recent developments and anticipated future trends on livestock production.

Text in English (article in press)



Salud Pública Veterinaria
Centro Panamericano de Fiebre Aftosa



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Pan American Foot and Mouth Disease Center

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