Transboundary animal diseases

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Many countries use the term exotic or foreign animal disease to designate those diseases that would have a disastrous consequence if they were to enter their territory, either because of the direct losses to the domestic population suffering the disease or required counterepizootic measures, loss in trade, or possibly the potential zoonotic spill over. From a United Nations point of view the preferred term is transboundary animal diseases (TADs) as nothing is per se exotic or foreign in the global theatre. TADs are defined by FAO as those diseases that are of significant economic, trade and/or food security importance for a considerable number of countries; which can easily spread to other countries and reach epidemic proportions; and where control/management, including exclusion, requires cooperation between several countries. Such definition should include emerging infectious diseases (EIDs), most of which will likely be zoonoses, but of uncertain impact. FAO's Emergency Prevention System for animal health focuses on some 12-14 diseases of a transboundary nature (foot-and-mouth disease, rinderpest, contagious bovine pleuropneumonia, sheep and goat pox, peste des petits ruminants, highly pathogenic avian influenza, Rift Valley fever, Newcastle disease, African and classical swine fever, equine encephalitidies, and under certain circumstances rabies and brucellosis). The links between wildlife and livestock are seamless and knowledge on management issues is imperative for the future practitioner in understanding disease ecology. The key aspect to detection and containment of TADs and EIDs is to have all actors within the production and marketing chain linked with veterinary systems (encompassing those that teach at veterinary faculties, rural and urban practitioners, and regulatory authorities) to learn to clinically suspect these diseases and call upon specialists in the case of uncertainty, and count on their active participation during emergency simulation exercises - local or central level. The common denominator for lowering risk and threat management of TADs (or other infectious diseases) is epidemiology and encompasses efforts into heeding warnings, communication of risk factors, disease recognition, detection and diagnosis, and cross-occupational efforts for response and eventual recovery. The role of the educator is to place importance in training future practitioners in investigative skills, open mindedness in developing differential diagnosis lists, sample taking, risk analysis, care in not vectoring disease off a premise, and knowing who to contact in the event of an uncertainty. The new graduate should be well equipped to play a key role in globalised societies in the context of developed as well as developing counties.