Refinement and Use of Certificates of Veterinary Inspection (Health Certificates) for Optimal Assurance of Disease Freedom in Aquatic Animals

David E. Starling¹, Dušan Palić², and A. David Scarfe³*

¹Aquaterinary Services P.C.; ²Center for Food Security and Public Health, The College of Veterinary Medicine, Iowa State University; ³American Veterinary Medical Association; *Corresponding Author

Introduction

Certificates of Veterinary Inspection (CVI), generally termed “Health Certificates”, are pivotal for ensuring translocated animals are not diseased or harbour significant pathogens. While used very successfully with terrestrial animal movement for decades, CVIs for aquatic animals are not well refined, understood or used, despite the availability of several aquatic animal ‘certification processes’, ‘permits’ and insurance policies, and the assurance of broodstock breeding soundness. Correctly designed CVIs provide the single most economical and effective assurance of the disease status (generally freedom from specific diseases or pathogens) for individuals or lots of animals, at any point in time. When issued by a qualified independent third-party (typically a licensed veterinarian, and in some case government accredited) they provide the official level of assurance necessary for intrastate, interstate and international trade.

Necessary detailed information captured in a CVI for these purposes include (Fig 1):

- The veterinarian, purpose of the CVI, and the types of animals involved
- The source and destination (ownership), transportation (if moved) and possible permits needed
- The identity of animals involved
- The results of specific validated/standardized diagnostic tests required by the destination authority, including laboratory test information to determine protocols used, their validity, and to calculate the probability of disease/pathogen freedom
- Declarations by the veterinarian and owner attesting to inspection, tests performed and biosecurity procedures being implemented

In addition, for CVIs to be official government documents that meet an importing country’s requirements according to OIE standards, endorsement by the official veterinary authority (or other competent authority with jurisdiction over aquatic animal health) is required.

Future Progress for Increasing Efficiency – Electronic CVI (e-CVI)

Secured electronic collection and transfer of data between the attending veterinarian, diagnostic laboratories, competent authorities and the source and destination, and for issuing e-CVIs would increase the utility of any CVI system (Fig 2). E-data transfer and e-CVIs would also be in accord with OIE standards.

A preliminary trial of an e-CVI system was successfully tested by GlobalVetLink (Ames, Iowa, USA) for moving 15-20 shipments of ornamental (aquarium) fish per week (7-10K per shipment), from Florida wholesale sources to Virginia pet stores during 2001-2002.

Currently no system for issuing e-CVIs for aquatic animals is fully operational. However, several systems in development (GlobalVetLink e-CVI: USDA’s VSPS – Fig 3) would be extremely useful for aquatic e-CVIs. A similar approach would be feasible in the European Union by integrating TRACES (TRAde Control and Expert System), CENTAUR (database for export health certificates, transboundary animal disease e-communications) and ANIMO (computerized network for linking veterinary authorities) or in Australia/New Zealand using a modified e-CERTS system (Fig 4).

Summary

In accord with the OIE Aquatic Animal Standards Commission Work Plan for 2009/2010 to examine “Health Certificates”, these elements of a Certificate of Veterinary Inspection (Health Certificate) are offered for discussion, comment and refinement. If optimally designed, model CVIs may be of use with electronic systems that are evolving in, for example, Europe, the USA and Australia/New Zealand in accord with governmental initiatives.