

GIDEON Vet: A Comprehensive Web Application for Decision support in Veterinary Medicine

Introduction:

GIDEON is a Web-based application for Decision support and Informatics in the field of human Infectious Diseases, Microbiology and Toxicology. The application has been marketed since 1992, by Gideon Informatics, Inc, Los Angeles, CA. GIDEON is currently used by several hundred clinical and academic departments in over 40 countries, including WHO, CDC, European CDC, Mount Sinai hospital, Yale University and Stanford.

GIDEON consists of three modules:

- Infectious diseases – incorporates sub-modules:
 - Diagnosis – designed to generate a Bayesian ranked differential diagnosis based on signs, symptoms, incubation period, country of origin, contact history and laboratory findings.
 - Epidemiology – follows the status of all infectious diseases, both on a global level and within each endemic country.
 - Drugs and Vaccines – an interactive encyclopedia of all drugs and vaccines used in the field of Infectious Disease
- Microbiology – An encyclopedia of all human bacteria, mycobacteria and yeasts. Can be used to identify any organism, based on phenotypic tests entered by the user.
- Toxicology – Detailed information regarding all occupational toxins. Can be used to diagnose toxin-related diseases based on occupation, exposure, signs, symptoms.

In addition to Infectious Diseases of humans, the first two modules follow the status of all relevant zoonotic infections. Text is supplemented by over 200,000 graphs, images, maps, outbreaks, sero-surveys and linked references.

How is GIDEON used ?

The current uses of Gideon may be summarized as follows:

- Decision support – generate a ranked differential diagnosis compatible with any clinical scenario, in any country. Used by practicing physicians at the level of clinic, emergency room or hospital ward. An additional option is dedicated to infections associated with Bioterrorism
- Informatics – follow the status of all infectious diseases, both on a global level and within every relevant country. Real-time updates of

all ongoing outbreaks, epidemics, drugs, vaccines, recommendations for travelers and emerging diseases and pathogens.

- Teaching and publishing – GIDEON can be used to prepare custom designed text, graphs, clinical images, maps, etc relevant to any disease, drug, vaccine or pathogen.

A parallel application will serve Veterinarians in identical fashion, at the level of Clinic, Research laboratory or Academic department. The scope will cover all Veterinary infections, in all countries.

Proposed project:

Creation of an additional GIDEON module for use in Diagnosis-support and Informatics in the field of Veterinary infection. Data in GIDEON are entered in a series of computer spreadsheets which are uploaded periodically to the server. The existing application would be expanded to support the spreadsheets which contain the signs, symptoms and incidence of Veterinary infections.

Development of the Veterinary application content would be performed by Veterinarian(s) / Veterinary institution(s) using spreadsheets. The developers would enter known / estimated data regarding relevant symptoms, etc. Individual spreadsheets could be used for specific species (cattle, equine, dog, etc).

The initial phase of development would be limited to Diagnosis support. The application could then be expanded to include epidemiological notes, anti-infective drugs, vaccines and pathogens relevant to infectious diseases of animals.

Collaboration:

GIDEON is marketed by a commercial company, which would function in the capacity of publisher. Veterinary staff / institutions involved in content development would share in sales of the application as authors, and would continue to update the content as necessary.

Free trial access to the full GIDEON application is available at www.gideononline.com

As you review the various GIDEON modules, consider how they will be adapted for use in Veterinary Medicine.