

**From evidence to guidelines:
the GSLC experience**

EVIDENCE BASED VETERINARY MEDICINE E MEDICINA
VETERINARIA
CENTRO COCHRANE ITALIANO
FACOLTÀ DI MEDICINA VETERINARIA – UNIVERSITÀ DI BOLOGNA

Luigi Gradoni
Research Director
Unit of Vector-borne Diseases & International Health
MIPI Department – Istituto Superiore di Sanità
Roma

What is 'GSLC'?

GSLC = Gruppo di Studio sulla Leishmaniosi Canina (Canine Leishmaniasis Working Group, CLWG) is an expert panel established in November 2005 in collaboration with the Italian Society of Veterinarians of Companion Animals (SCIVAC). The aim of the CLWG is to provide a scientific-based consensus approach for the management of CanL with regards to **diagnosis and clinical classification of disease, therapy and prevention**. The main outcome - but not unique - is the production of **guidelines** intended to assist veterinary practitioners

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

Published or 'in press' guidelines

**LEISHMANIOSI CANINA: LINEE GUIDA
SU DIAGNOSI, STADIAZIONE, TERAPIA,
MONITORAGGIO E PREVENZIONE**
Parte I: Approccio diagnostico e classificazione del paziente
leishmaniotico e gestione del paziente proteinurico

CANINE LEISHMANIASIS: GUIDELINES FOR DIAGNOSIS, STAGING, THERAPY,
MONITORING AND PREVENTION.
Part I: Diagnostic approach and classification of the patient affected by leishmaniasis
and management of dogs with proteinuria

A CURA DEL GRUPPO DI STUDIO SULLA LEISHMANIOSI CANINA (G.S.L.C.)

Published or 'in press' guidelines

Journal of the American Veterinary Medical Association
(accepted for publication)

1 Canine leishmaniasis: guidelines for diagnosis and clinical classification

2

3 Authors*: Savarino Palmisani (DVM, Prof., DECVCVP), Lino Solano-Gallego (DVM, PhD,
4 DECVCVP), Alessandro Fondini (DVM, PhD, DECVD), George Lubas (DVM, Prof., DECVM),
5 Luigi Gradoni (BioSc, PhD, C, Massimo Castagnaro (DVM, Prof., DECVP), Alberto Creati (DVM),
6 Michele Marelli (BioSc, PhD), Gaetano Cirica (DVM, Prof.), Xavier Roure (DVM, PhD, DECVM),
7 Andrea Zattli (DVM), Eric Zan (DVM, PhD, DECVM)

Published or 'in press' guidelines

**LEISHMANIOSI CANINA:
LINEE GUIDA SU DIAGNOSI, STADIAZIONE,
TERAPIA, MONITORAGGIO E PREVENZIONE**
Parte II: Approccio terapeutico

CANINE LEISHMANIASIS: GUIDELINES FOR DIAGNOSIS, STAGING,
THERAPY, MONITORING AND PREVENTION
Part II: Therapeutic approach

A CURA DEL GRUPPO DI STUDIO SULLA LEISHMANIOSI CANINA (G.S.L.C.)

DIAGNOSIS (I)
Search strategy for identification of studies

- ✓ A search strategy for MEDLINE following Cochrane Reviewers' Handbook (Alderson 2004) was attempted (however this is most relevant for drug/vaccine intervention trials)
- ✓ Search for relevant citations in international conference proceedings
- ✓ Where inadequate or incomplete, information was supplemented with the experience of CLWG members

DIAGNOSIS (II)
 Limitations of EBVM approach in literature review and guideline generation

- ✓ Almost no 'ring trials among diagnostic centres' were available in literature for any of the diagnosis tools employed in canine leishmaniasis
- ✓ A large variety of methods were developed in the categories of 'serology' and 'molecular methods', however only a few studies were available on comparative diagnostic performances within each category

One serological technique (IFAT) is universally taken as reference method because of ... tradition?

Fig 2. Serological investigations on canine leishmaniasis reported by European research groups in the past 12 years and the techniques used (Gradoni, 1999)

DIAGNOSIS (III)
 Limitations of EBVM approach in literature review and guideline generation

- ✓ Very few studies were available on prospective comparative evaluation of diagnostic tools in naturally infected dogs at well-defined infection stages
- ✓ Conversely, most of the studies were performed using cross-sectional samples from dogs at different (unknown) infection stages

In a chronic progressive infection like leishmaniasis, after a long pre-patent period (4-7 months) the diagnostic markers convert to positive according to the following sequence:

PCR → Culture/Microscopy → Serology → Clinical evidence

0-22 months (m: 8.5) 0-2 months (m: 1.5) 3-14 months (m: 7.0)

(m= median)

Ideally, an EB approach in laboratory diagnosis methods should include the following:

PCR → Culture/Microscopy → Serology → Clinical evidence

<p>Compare:</p> <ul style="list-style-type: none"> - Tissues sampled - Genome targets - Techniques (Conv., Nested, Real-time) 	<p>Compare:</p> <ul style="list-style-type: none"> - Tissues sampled - Staining/Immuno - Medium (Blood-agar, Liquid, Nutrients) 	<p>Compare:</p> <ul style="list-style-type: none"> - Antigens - Techniques (IFAT, ELISAs, WB, DAT, Latex) - Cut-off, Se, Sp 	<ul style="list-style-type: none"> - Early/late lab changes - Early/late signs - Common to species/breed - Individual
--	--	--	---



