1. Opening

The OIE ad hoc Group on Rift Valley Fever (RVF) met from 6 to 8 December 2011 at the OIE Headquarters in Paris, France. Dr Kate Glynn, Project Officer, Scientific and Technical Department, welcomed the participants on behalf of the OIE Director General, Dr Bernard Vallat. She mentioned that this meeting had been convened following both a proposal from the Biological Standards Commission, and the recommendations adopted at a GF-TADs' meeting held in January 2011 at the FAO Headquarters in Rome, Italy, on Rift Valley fever, vaccine development, progress and constraints. She presented the overall objective of this meeting which was to review and update Chapter 2.1.14. on RVF of the OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals (Terrestrial Manual), taking into account recent scientific advances and the latest available technologies in diagnostic tests and vaccine development.

2. Appointment of chairperson and rapporteur

Dr Pierre Rollin and Dr Jeroen Kortekaas were appointed as chairman and rapporteur, respectively.

3. Adoption of the Terms of Reference and Agenda

The Agenda, List of Participants, and Terms of Reference are presented in Appendices I, II and III of this report, respectively.


The Group reviewed the chapter in the light of recent scientific advances and the latest available technologies in diagnostic tests and vaccine development.

a) Section C: Requirements for vaccines

The Group first reviewed section C of the chapter, which dealt with the requirements for vaccines, making use of the draft template provided by the OIE Headquarters, which was currently being evaluated.

Important progress in vaccine development made since the chapter was last updated was recognised by the Group and it was therefore decided to completely revise Section C of the chapter.

The following changes and comments were highlighted:

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1 GF-TADs: Global Framework for the progressive control of Transboundary Animal Diseases.
Regarding the newly proposed template, the Group was of the opinion that it could be used for the RVF chapter. However it was suggested to add a vaccine profile item to the background information as well as an item on moisture content to the method of manufacture that could be used for all the disease-specific chapters of the *Terrestrial Manual*. The target product profile (described in section C.1) was meant to review the main characteristics of RVF virus vaccines as well as requirements for specific applications. This information could be instructive for potential vaccine developers. The Group also made some small changes to the template that are reported in the specific comments below.

In agreement with OIE Policy for the vaccine section of the chapter, the Group developed a description of the current vaccines available and mentioned in a short paragraph the vaccines that were in development and might be available soon.

Two types of vaccine were described: live attenuated and inactivated virus vaccines. The Group recommended the use of attenuated strains for the production of both live and inactivated vaccines.

For the method of manufacture and the requirements for authorisation, the Group provided generic information. The specificities for the RVF vaccines were mentioned only when relevant or with the aim of being highlighted.

Working with RVF virus was considered as posing an occupational health risk. The Group therefore pointed out the importance of developing and producing safe vaccines for those staff involved in the production (vaccination if vaccines are available and work under high level containment) and also for the users.

In “characteristics of the master seed”, *biological characteristics*, the Group added information on how to confirm a strain as a master seed.

In “method of manufacture”, *safety*, the Group took note of the work done by the *ad hoc* Group on Vaccine Quality Related to Foot and Mouth Disease (FMD), and used the wording agreed by this *ad hoc* Group for the chapter on RVF.

In “method of manufacture”, *moisture content*, although the rate can vary from 3 to 5% depending on the country, the Group decided to mention 5% as it is the maximum rate agreed.

**b) Section B: Diagnostic techniques**

The Group continued its work by updating the diagnostic section of the chapter.

**Identification of the agent**

The Group reviewed the part on identification of the agent and, after discussion, proposed changes and updated the references as reflected in the proposed revised version of the chapter. Notably the following changes or comments were highlighted:

The Group proposed to add a sub-item on collection of specimens, and to include in it the need for the biosafety considerations for those staff manipulating these specimens.

The Group updated the sub-item on culture by splitting the current sub-item a) into two new sub-items: isolation in cell cultures, and isolation in suckling mice.

Although revising the part on culture was proposed, the Group was of the opinion that a generic chapter in the *Terrestrial Manual* on culture would be useful and appropriate. Indeed the methods for culture did not differ much from one disease to another. Therefore a generic chapter on this topic would help not having to repeat the same information in disease-specific chapters.
Serological tests

The Group reviewed the part on serological tests and, after discussion, proposed changes and updated the references as reflected in the proposed revised version of the chapter. Notably the following changes or comments were highlighted:

Several ELISAs\(^2\) had been developed and other ELISAs would soon become available. References to publications describing these ELISAs were therefore added. The ELISA protocol that was in the chapter was removed as several other ELISA protocols had been validated since the chapter was last revised and could be provided on request by the OIE Reference Laboratories or the developers.

The Group removed the sub-items on agar gel immunodiffusion, hemagglutinin inhibition (HI), radioimmunoassay and complement fixation assays. As far as the Group was aware, radioimmunoassay and complement fixation assays were not used anymore and HI assays were exclusively used in Egypt. Other assays of superior specificity and sensitivity were now available.

The virus neutralisation test (VNT) was historically considered the most sensitive and most specific diagnostic serological assay. The Group noted that ELISAs were now available that were of equal, if not higher, sensitivity and that these ELISAs should preferably be employed for routine screening of sera. The VNT remained the most specific serological assay and should therefore preferably be employed for serological confirmation when needed.

The VNT was intrinsically an in-house assay, and thus a standardised and detailed protocol should be maintained in the chapter. The VNT protocol described in the chapter was still up to date and was therefore not modified. It was however noted during the meeting that alternative VNT methods were being developed and validated, which would circumvent the need to handle virulent RVF virus in the near future.

Having regard to current Chapter 8.11. of the *Terrestrial Animal Health Code* on RVF, the Group agreed that there was no need to have a prescribed test method for international trade in the *Terrestrial Manual* Chapter. However, the Group did not delete, from the virus neutralisation, the mention “prescribed test for international trade” as it should be subject to the decision of the OIE Biological Standards Commission. If prescribed tests for international trade were useful, the Group would be happy to provide expertise.

c) Section A: Introduction and Summary

Finally the Group revised the introduction to the chapter and finalised the summary part based on the revisions being made in the other parts of the chapter.

5. Other matters

The Group suggested that the OIE develop challenge models for the relevant OIE listed diseases (number of animals to take into consideration, test methods to be used etc.). The challenge models were currently not harmonised and yet essential when developing a vaccine.

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\(^2\) ELISA: Enzyme-Linked Immunosorbent Assay
Appendix I

OIE AD HOC GROUP ON RIFT VALLEY FEVER

Paris, 6–8 December 2011

Agenda

1. Opening;
2. Appointment of chairperson and rapporteur;
3. Adoption of the Terms of Reference and agenda;
5. Other matters;
6. Adoption of the report.
Appendix II

OIE AD HOC GROUP ON RIFT VALLEY FEVER
Paris, 6–8 December 2011

List of Participants

MEMBERS

Dr Baratang Alison Lubisi
Onderstepoort Veterinary Institute
Agriculture Research Council
Private Bag X05
Onderstepoort 0110
SOUTH AFRICA
Tel.: +27-12 529 91 17
Fax: +27-12 529 94 18
lubisia@arc.agric.za

Dr Jeroen Kortekaas
Project Leader, Central Veterinary Institute of Wageningen, University Research
P. O. Box 65
NL-8200 AB Lelystad
THE NETHERLANDS
Tel.: +31 320 238 198
Fax: +31 320 238 225
jeroen.kortekaas@wur.nl

Dr Amadou Alpha Sall
Institut Pasteur de Dakar
Unité des Arbovirus et Virus de fièvres hémorragiques
36, Avenue Pasteur, BP 220
Dakar
SENEGAL
Tel.: +221.33.839.92.23
Fax: +221.33.839.92.10
asall@pasteur.sn

Dr Pierre Rollin
Special Pathogens Branch
National Center for Zoonotic, Vector-borne, and Enteric Diseases
Centers for Disease Control and Prevention
1600 Clifton Road, MS G-14
Atlanta, GA 30333
USA
Tel.: +404-639 1124
Fax: +404-639 1115
pyr3@cdc.gov

Dr Jeroen Kortekaas
Project Leader, Central Veterinary Institute of Wageningen, University Research
P. O. Box 65
NL-8200 AB Lelystad
THE NETHERLANDS
Tel.: +31 320 238 198
Fax: +31 320 238 225
jeroen.kortekaas@wur.nl

Dre Michèle Bouloy
Unité de génétique moléculaire des Bunyavirus
Département de Virologie
Institut Pasteur, 25 rue du Dr Roux
75724 Paris cedex 15
FRANCE
Tel.: +33-1 40.61.31.57
Fax: +33-1 40.61.31.51
mibouloy@pasteur.fr

Dr Gerrit Viljoen
IAEA/AIEA Animal Production Unit
FAO/IAEA Agriculture and Biotechnology Laboratory
NAAL
Wagramerstrasse 5 - P.O. Box 100
A-1400 Vienna
AUSTRIA
Tel.: Fax: G.J.Viljoen@iaea.org

OIE BIOLOGICAL STANDARDS COMMISSION REPRESENTATIVE

Dr Medhi El Harrak
Chef Département Virologie, Biopharma Laboratory
BP 4569, Avenue Hassan II, km2
Rabat-Akkari
MOROCCO
Tel: +212 674 906 715
Fax: +212 537 693 632
elharrak_m@hotmail.com

OBSERVERS

Dr Baptiste Dungu
Senior Director: Research & Development
GALVmed (Global Alliance for Livestock Veterinary Medicines)
Doherty Building, Pentlands Science Park
Bush Loan
Edinburgh EH26 0PZ
Scotland
UNITED KINGDOM
Tel.: +44 0131 445 6198
Fax: +44 0131 445 6222
Baptiste.Dungu@galvmed.org

Dr Danny Goovaerts
IFAH Representative
Director Global R&D Governmentally Regulated Diseases
MSD Animal Health
Wim de Körverstraat 35
P.O. Box 31
9330 AA Boxmeer
The Netherlands
Tel.: +31 (0) 485 587727
Fax: +31 (0) 485 587339
Danny.Goovaerts@merck.com

OIE STAFF

Dr Bernard Vallat
Director General
12 rue de Prony
75017 Paris
FRANCE
Tel.: (33) 1 44 15 18 88
Fax: (33) 1 42 67 09 87
oie@oie.int

Dr François Diaz
Scientific and Technical Department
f.diaz@oie.int

Dr Kate Glynn
Scientific and Technical Department
k.glynn@oie.int

Dr Stéphane de La Rocque
Sub-Regional Representation for Europe
Rue Breydel, n°40, 1040 Brussels
BELGIUM
s.delarocque@oie.int
Appendix III

OIE AD HOC GROUP ON RIFT VALLEY FEVER
Paris, 6–8 December 2011

Terms of Reference