

WOAH Standards on Infection with *Burkholderia mallei* (Glanders)

Webinar on Equine Influenza

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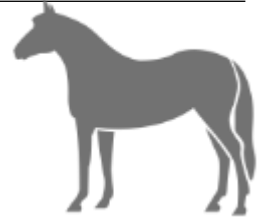


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de la santé
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- First adopted in 1968; most recent update adopted in 2018



- **Case definition:**

1- Isolation of *Burkholderia mallei* in a sample of an equid; **OR**

2- Detection of **antigen nucleic acid specific** to *B. mallei* in a sample of an equid showing clinical signs or pathological lesions, or epidemiologically linked to a confirmed or suspected case of glanders; **OR**

3- Detection of **Antibodies specific to *B. mallei*** have been detected in a sample from an equid showing clinical or pathological signs consistent with glanders, or epidemiologically linked to a confirmed or suspected case of infection with *B. mallei*



3rd alternative presents a challenge, as there are difficulties to differentiate *B. mallei* (glanders) from *B. pseudomallei* (melioidosis) through **serological tests**.

Difficulties in serological diagnostics: cross-reactions with *Burkholderia pseudomallei* (melioidosis)

- New tests available that could replace CFT.
- WOAHA Biological Standards Commission recommended performing an international interlaboratory comparison test with WOAHA Reference Labs.
- ✓ France (WOAHA Ref. Lab)
- ✓ Germany (WOAHA Ref. Lab)
- ✓ United Arab Emirates (WOAHA Ref. Lab)
- ✓ Australia
- ✓ Brazil
- ✓ China
- ✓ UK

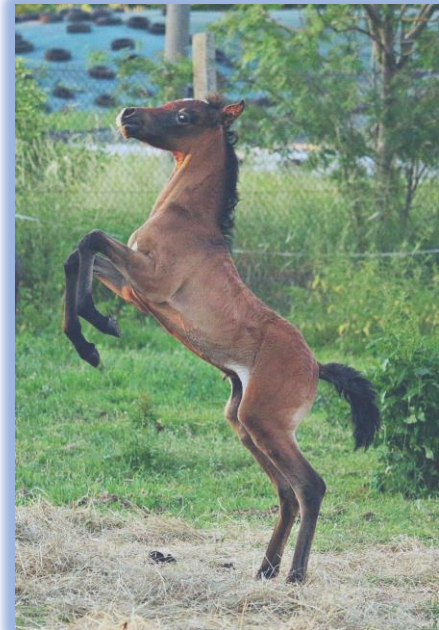
Glanders

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See the annual report →	See the annual report →	See the annual report →

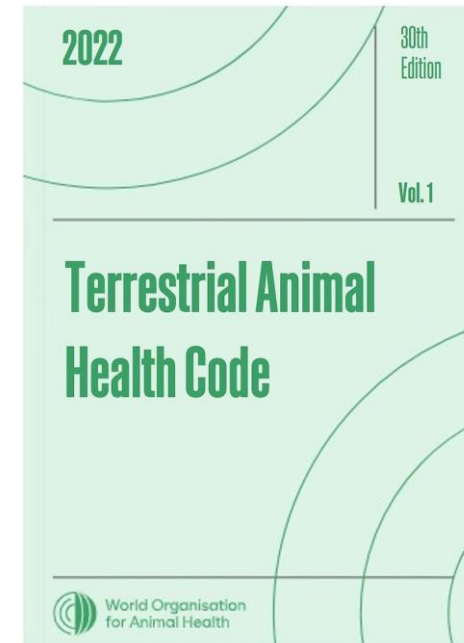
- **Country, zone historically free from infection:**

For the last 10 years:

- 1) The disease is **notifiable** in the whole country
- 2) An early warning system has been in place
- 3) Measures to prevent the introduction of the infection implemented (importations in accordance with the Chapter 12.10. of the *Terrestrial Code*);
- 4) The infection is **not known to be established in wildlife**
- 5) for at least **25 years** there has been no occurrence of infection
- 6) The pathogenic agent is likely to produce identifiable clinical or pathological signs in susceptible animals



- **Country, zone free from glanders (where historical freedom cannot be demonstrated) Art. 12.10.2.:**
 - 1) infection with *B. mallei* is **notifiable** in the whole country for the **past three years**;
 - 2) **No case of infection with *B. mallei* in the past three years**;
 - 3) **No evidence of infection with *B. mallei* demonstrated through a surveillance programme** in accordance to Art. 12.10.8. **for the past 12 months**;
 - 4) **Imports of equids and their germplasm** into the country or zone are carried out in accordance with Art. 12.10.4 to 12.10.7.





Code Chapter on infection with *Burkholderia mallei* (GLANDERS)

- Recommendations for **importation of equids from countries or zones free from infection with *B. mallei***

An international veterinary certificate attesting that equids:

- Show no clinical signs** on the day of shipment AND
- Were kept for six months prior to shipment**, or since birth, in a country or zone free from infection with *B. mallei*;



- Recommendations for **importation of equids from countries or zones NOT free from infection with *B. mallei***

No clinical signs prior to shipment **+ kept for six months prior to shipment**, or since birth, in an establishment where no case of infection with *B. mallei* was reported during the 12 months prior to shipment; **+ isolated** for at least **30 days prior to shipment**, and during that time were **subjected to a test** for infection with *B. mallei* with negative result carried out on **two samples taken 21 to 30 days apart**.



Code Chapter on infection with *Burkholderia mallei* (GLANDERS)

- Recommendations for the importation of **equine semen** (art. 12.10.6)
 1. The donor males showed no clinical signs of infection with *B. mallei* on the day of collection
 2. were examined clinically for signs of orchitis and cutaneous lesions on the penis or other parts of the body, with negative results;
 3. the semen was collected, processed and stored in accordance with the relevant recommendations in Chapter [4.6.](#) and in Articles [4.7.5.](#) to [4.7.7.](#)
- Recommendations for the importation of **in vivo derived equine embryos** (Art. 12.10.7.)
 1. The donor females showed no clinical signs of infection with *B. mallei* on the day of collection;
 2. The embryos were collected, processed and stored in accordance with the relevant recommendations in Chapters [4.8.](#) and [4.10.](#); and the semen used for embryo production complies with Article [12.10.6.](#)





• Recovery of Free Status

Freedom from infection with *B. mallei* can be regained after:

1. **Standstill of equids and their germplasm** from affected establishments imposed until the destruction of the last case;
2. **Epidemiological investigation** to determine the likely source of the outbreak, has been carried out
3. **Stamping-out policy**, destruction of all infected equids and the disinfection of the affected establishments
4. **Surveillance** in accordance with Article 12.10.8. **demonstrating no evidence of infection in the 12 months** after disinfection of the last affected establishment and implementation of control the movement of equids.

When the measures above are not carried out, Article [12.10.2.](#) applies

Self-declaration of freedom from glanders

Possibility to submit to WOAAH for publication a **self-declaration** of disease freedom from glanders (country/zone)

For more information

www.woah.org/self-declaration

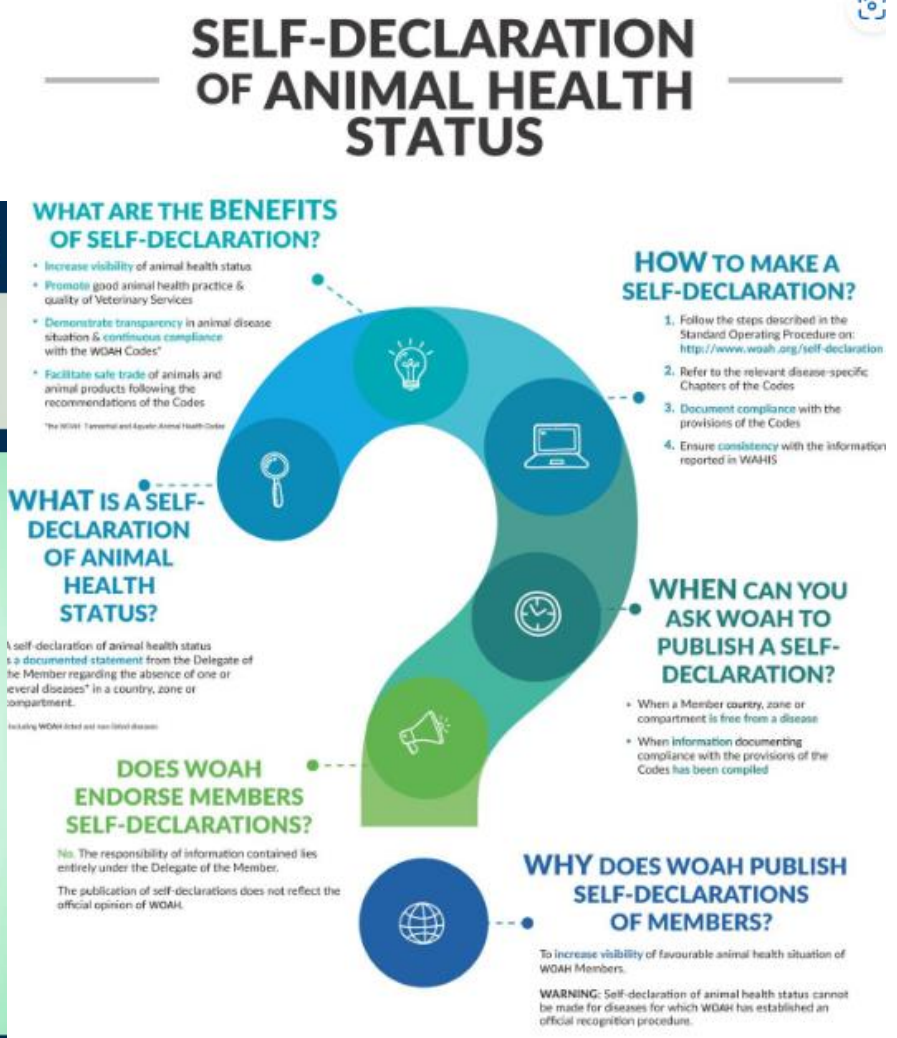
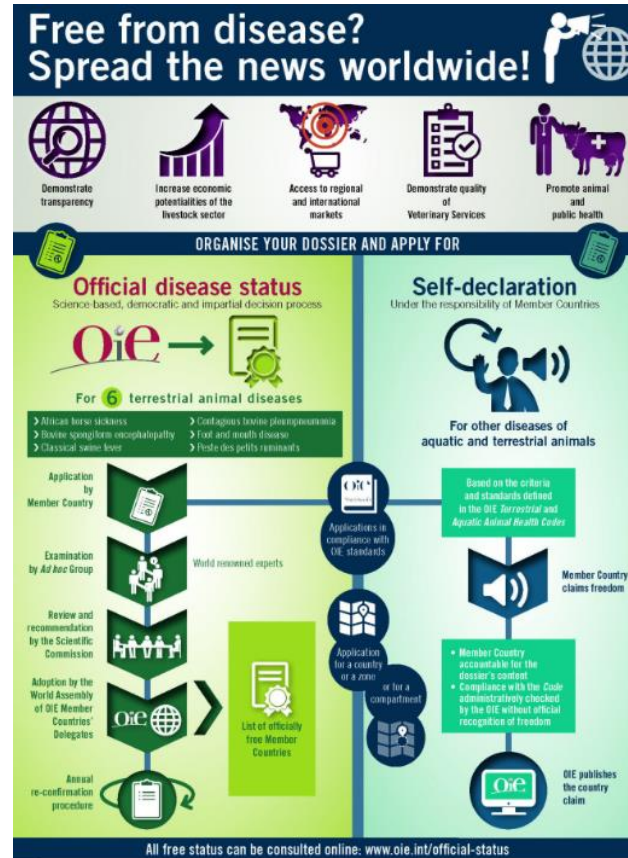
or contact:

self-declaration@woah.org

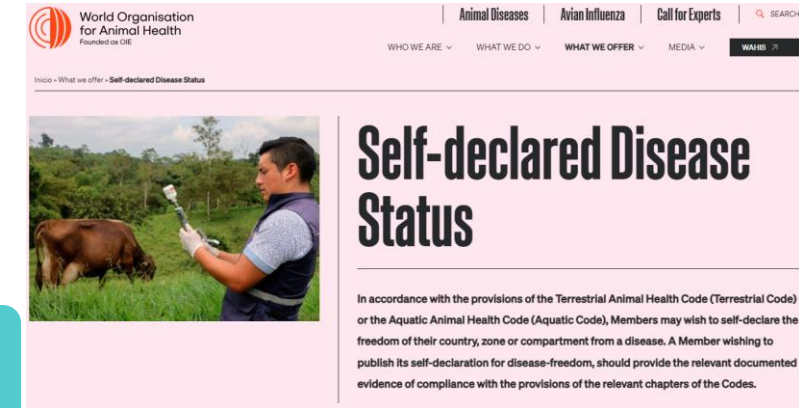
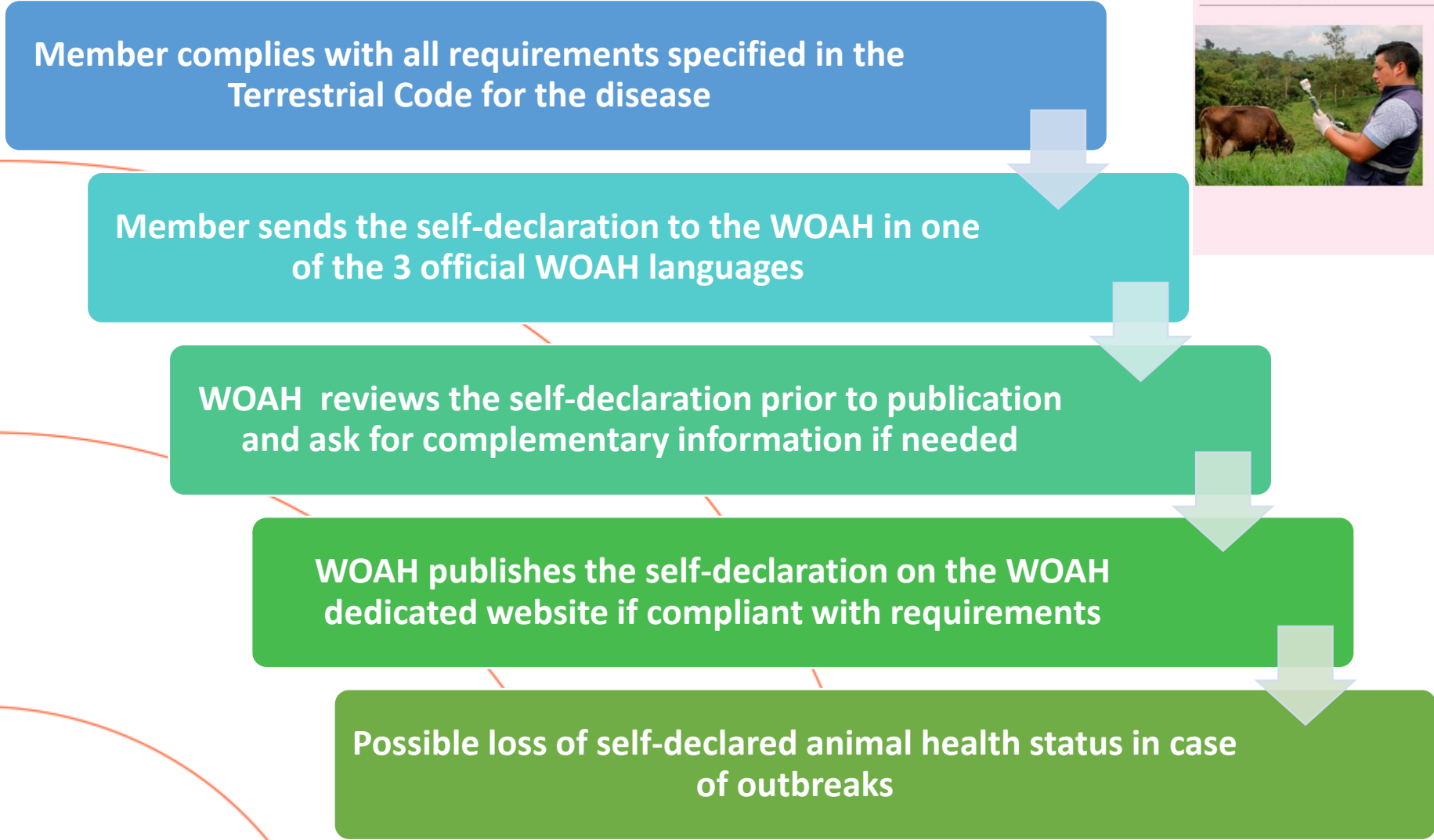
Recently published self-declarations

Please note that for some self-declarations' pdfs are available only in the original language of submission and for non-active self-declarations the links to the documents have been deactivated. If you wish to select multiple items in the table/dashboard, please click on Ctrl.

More information on Members' historical and current animal health situation will soon be available on [WAHIS](#).



Member	Self-declared freedom from	Category	From	To	Country/zone/compartment	Status	Temporary
Egypt	Burkholderia mallei (Inf. with) (Glanders)	Terrestrial	2020-11-09		Country	Active	No
Kuwait	Burkholderia mallei (Inf. with) (Glanders)	Terrestrial	2020-09-17		Country	Active	No
Mexico	Burkholderia mallei (Inf. with) (Glanders)	Terrestrial	2019-04-23		Country	Active	No
Germany	Burkholderia mallei (Inf. with) (Glanders)	Terrestrial	2015-06-14		Country	Active	No
Lebanon	Burkholderia mallei (Inf. with) (Glanders)	Terrestrial	2012-03-23		Country	Active	No





• Surveillance Strategies

- Clinical surveillance but also to detect infection with *B. mallei* in the absence of clinical signs.
- Under the responsibility of the veterinary Authorities
- A system for detecting and investigating outbreaks;
- Procedures for handling the samples
- A system for recording, managing and analysing surveillance data
- A procedure for confirmation of inconclusive results in a WOAHP Reference Laboratory

The reporting system efficacy should be enhanced by awareness programmes and animal identification of equids.

Targeted serological surveys of high-risk subpopulations or those neighbouring a country or zone infected with *B. mallei*

All suspected cases should be investigated asap and samples submitted to a laboratory. Suspected cases and how they were investigated and dealt with should be documented.

Surveillance Strategies

The strategy implemented should be based on the current knowledge of the epidemiological situation, and the expected results of the surveillance. Determine Target population.

Every positive result should be investigated to determine whether it is indicative of infection or not. Agent identification should be carried out on any equid serologically positive or showing clinical signs consistent with glanders.

- **Serological surveillance** preferred strategy. **Animal identification** and repeated testing may be required.
- **Pathological surveillance** on dead animals at farms/slaughterhouses. Pathological findings should be confirmed by agent identification (isolation).
- **Clinical surveillance** systematic clinical surveillance is of limited use only, as asymptomatic carrier animals are the main reservoir of the disease
- **Malleinisation** this method has shortcomings, such as low sensitivity, interference with other tests and animal welfare concerns.

Thank you! Questions?

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