Hendra virus – information for businesses that dispose of horse carcases

Background
Hendra virus is a sporadic infectious disease of horses caused by spill over of virus from flying foxes.
Hendra virus infection of humans is rare, but it is a serious disease that can be fatal.
Human infection has occurred following close contact with the blood and body fluids of an infected horse.
A registered vaccine is available to help prevent Hendra virus disease in horses.
There is no evidence that Hendra virus has spread directly from flying foxes to humans.

Risk
Infected horses may shed Hendra virus in their nose and throat secretions before becoming sick. Once an infected horse becomes sick, all blood and body fluids are considered infectious. The risk of infection increases as the horse becomes increasingly sick and is highest at the time of the horse’s death. Following death, the horse carcass should be considered infectious until its safe disposal.

Planning and preparation
Managing Hendra virus risks requires careful planning and preparation. Develop a plan for the disposal of a horse carcass where Hendra virus is suspected or confirmed, and establish supporting policies and procedures. Train workers in the plan, including the use of hygiene measures and personal protective equipment (PPE).
Provide adequate hand washing facilities, PPE and other equipment (e.g. cleaning equipment) necessary to safely dispose of a horse carcass.
Make up a kit with the recommended PPE and have this, as well as hand cleansers (e.g. soap, alcohol based hand rub and wipes), disinfectant and waste disposal bags, readily available.
Keep a first aid kit readily available (e.g. in the work vehicle) so that cuts and other non-intact skin can be covered before contact with a horse carcass and blood and body fluids.

General contact with all horse carcases
It is important to adopt good hygiene measures for the disposal of all horse carcases, even if the horse has been vaccinated against Hendra virus, as no vaccine can guarantee protection and the carcase may pose other infection risks.
Hygiene measures include the following:
- Where possible, avoid direct contact with the horse carcass (e.g. by using machinery to move the carcase).
- If handling the carcase is unavoidable (e.g. to place chains):
Check your skin for cuts and abrasions and cover these with a water-resistant dressing.

Avoid direct contact with the horse's blood and body fluids. If this is unavoidable, use PPE to protect your exposed skin, face and clothing from contamination. Depending on the level of contact with the carcase and its blood and body fluids, this may include disposable gloves, overalls, rubber boots and safety eyewear (e.g. safety glasses or goggles) or face shield.

- Wash hands using soap and water followed by hand drying, or use alcohol-based hand rub if there is no visible soiling of your hands, after:
  - contact with a horse carcase and before moving on to other activities
  - any exposure to a horse's blood and body fluids should this occur
  - removing PPE.

- Clean and disinfect machinery, equipment and reusable PPE that has been in contact with a horse's blood and body fluids, using appropriate solutions (e.g. detergent and disinfectant). Avoid splashes when cleaning (e.g. do not use a water hose under high pressure).

- Manage accidental contamination with a horse's blood and body fluids should this occur.
  - If blood or body fluids touches unprotected skin, wash the area with soap and water as soon as possible. Where water is not immediately available, wipe the area clean and use alcohol-based hand rub. Wash hands with soap and running water as soon as possible after the event.
  - If the exposure involves a cut or puncture wound, gently encourage bleeding and then wash the area with soap and water.
  - If eyes are contaminated, gently but thoroughly rinse open eyes with water or normal saline for at least 30 seconds.
  - If body fluids get in the mouth, spit the fluid out and then rinse the mouth with water several times.

Contact with a horse carcase where Hendra virus is suspected or confirmed

Disposal of a horse carcase where Hendra virus infection is suspected or confirmed requires careful planning using a risk based approach. It is important to ensure that the carcase does not pose a risk of infection to people or other animals or cause environmental contamination.

Deep burial on the property is the disposal option of choice, and preferably where the carcase is lying, so the carcase does not have to be moved.

The following health and safety measures should be adopted in addition to the general hygiene measures outlined above:

- Isolate the carcase from all people and animals until a disposal method is finalised and can be undertaken safely.

- Avoid direct contact with the horse carcase and its blood and body fluids If this is unavoidable, treat the carcase and its blood and body fluids with caution and use PPE to protect exposed skin, the face and clothing from contamination. Depending on the level of contact with the carcase and its blood and body fluids, this may include disposable gloves, disposable overalls, rubber boots, safety eyewear or face shield, and a properly fitted disposable P2 respirator.

- Dispose of the carcase intact. Do not dismember (cut up) the horse carcase for transport and disposal.

- If the horse has been euthanased or undergone a post mortem, be aware of sharp objects like needles or bone.

- If the horse carcase is leaking blood and body fluids, contain these substances prior to movement and transport if it is safe to do so (e.g. place a bag over the horse's head to contain fluids leaking from its nose and mouth).

- Dispose of contaminated soil and items that cannot be decontaminated with the carcase.

- After use, remove PPE carefully to avoid contamination and wash hands thoroughly. Place disposable PPE in a waste disposal bag. Clean and disinfect reusable PPE, wearing disposable gloves. 
and using appropriate solutions (e.g. detergent and disinfectant).

- Make sure to transport the horse carcase, contaminated soil and items in a container made of, or lined with, materials that can be easily cleaned and disinfected.

If the horse is confirmed to be infected with Hendra virus, Biosecurity Queensland will provide advice on the disposal of the carcase.

Further information

For more information visit www.worksafe.qld.gov.au or call 1300 362 128.

For more information on Hendra virus and animal health and biosecurity, contact Biosecurity Queensland on 13 25 23, visit www.biosecurity.qld.gov.au, or talk to your veterinarian.

For more information on Hendra virus and human health, contact Queensland Health on 13HEALTH (13 43 25 84) or visit www.health.qld.gov.au. Seek advice from a general practitioner, local hospital emergency department or local public health unit if you have concerns about possible exposure to Hendra virus.

For more information on flying foxes and disposal of horse carcases, contact the Department of Environment and Science on 1300 130 372 or visit www.des.qld.gov.au.

For more information on the transport of horse carcasses that are dangerous goods, contact the Department of Transport and Main Roads on 13 QGOV (13 74 68) or visit www.tmr.qld.gov.au.

Watch the Australian Veterinary Association PPE training video Suit up! Personal protective equipment for veterinarians.