

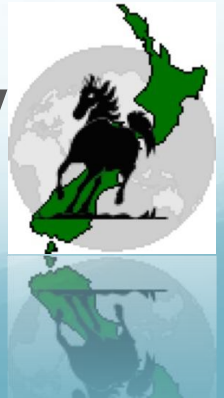
# EHM – What next?

Trish Pearce  
NZ Equine Health Association



# NZVJ - July

- New Zealand Veterinary Journal
- Volume 62, Issue 4, 2014
- A review of equid herpesvirus 1 for the veterinary practitioner. Part A: clinical presentation, diagnosis and treatment
- A review of equid herpesvirus 1 for the veterinary practitioner. Part B: pathogenesis and epidemiology
- M Dunowska<sup>a\*</sup> pages 171-188

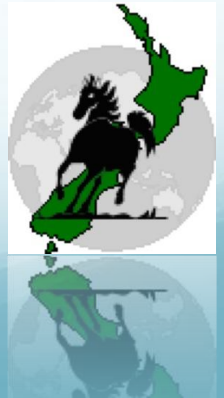


# Why the fuss!

**Endemic organism - emerging disease?**

**International experiences**

**The current NZ situation**



## Equine Herpes Myeloencephalopathy

Equine Herpes Virus (EHV-1) infection in horses can cause respiratory disease, abortion in mares, neonatal foal death and neurological disease. The virus is not transmissible to humans. The neurological form of the disease is known as Equine Herpes Myeloencephalopathy (EHM). Damage to the blood vessels in the brain and spinal cord associated with EHV-1 infection cause neurological signs to appear. EHM is most often due to the neuropathogenic strain of EHV-1, but may occasionally be caused by the non-neuropathogenic strain of the virus.

EHV-1 is easily spread and typically has an incubation period between 2-10 days. Respiratory shedding of the virus generally occurs for 7-10 days, but may persist longer in infected horses. For this reason, a twenty-one day isolation period of confirmed positive EHM cases is recommended.

## Emergence of EHM

In recent years, there has been a marked increase in the number of EHV-1 cases and several outbreaks of EHM at large horse events and facilities. The recent and increasing frequencies of EHM outbreaks support the designation of EHM as an “emerging disease”.

## Transmission

Horse-to-horse contact, short distance aerosol transmission and contaminated hands, equipment, tack and feed all have a role in disease transmission. Direct and indirect contacts are most important for transmission since the size of the virus limits capacity for airborne transmission to distances of less than 30 feet.

Horses exposed to EHV-1 and incubating the virus can



## Clinical Signs

Clinical signs of EHM in horses may include:

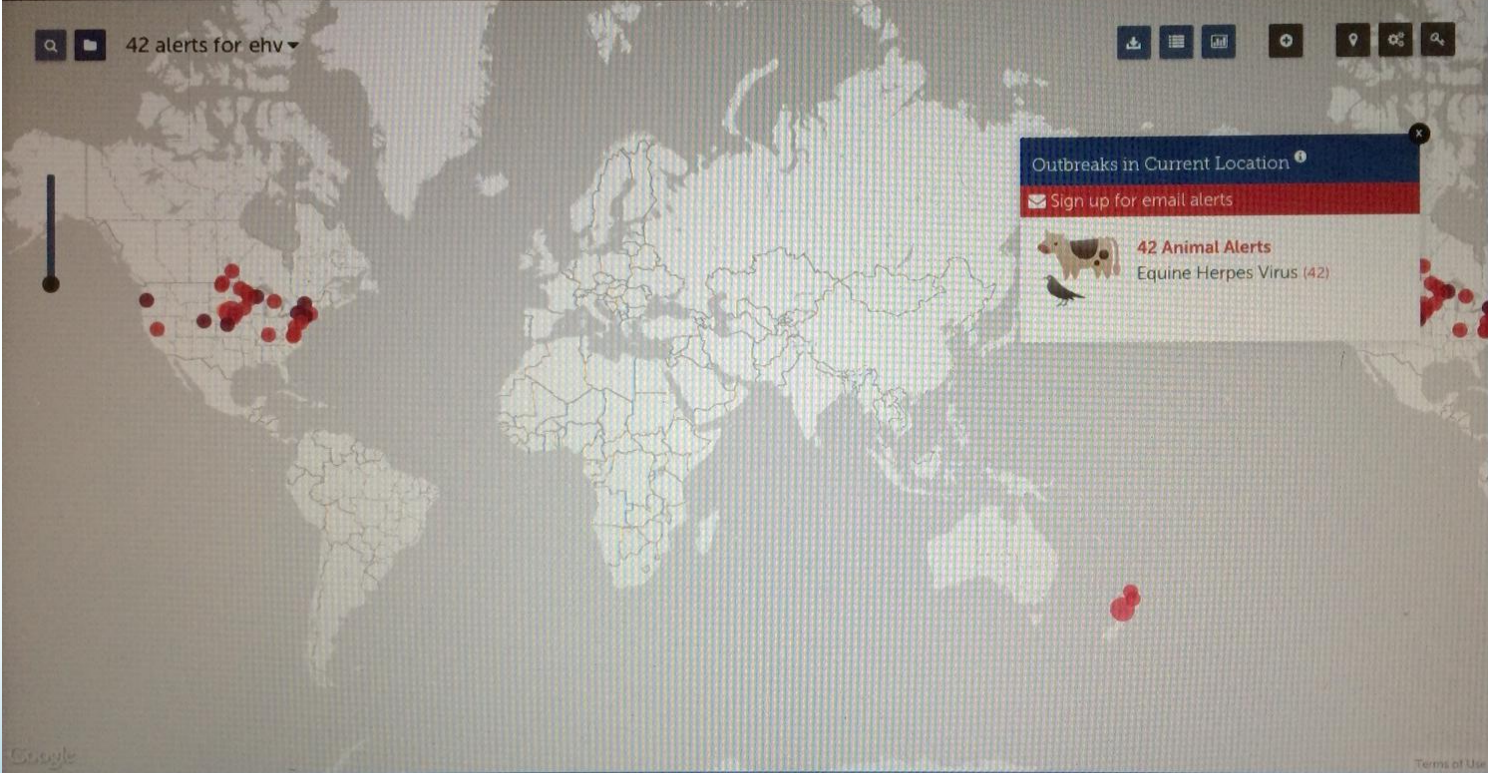
- Fever of 102°F or greater  
*Fever most often precedes neurologic signs*
- nasal discharge
- incoordination
- hindquarter weakness
- recumbency
- lethargy
- urine dribbling
- diminished tail tone.

Consult your veterinarian if your horse exhibits any of these signs.

## Diagnosis of EHM


Contact your private veterinarian if your horse develops EHM-compatible clinical signs. Nasal swabs and whole blood collected from the symptomatic horse are essential for detection of horses positive for the virus. Recent advancements in EHV-1 diagnostic testing enable laboratories to differentiate the non-neuropathic and the neuropathic strains of EHV-1. Diagnostics for detection of antibodies to EHV-1 indicate past exposure

42 alerts for ehv ▾



Outbreaks in Current Location ⓘ

✉ Sign up for email alerts

 **42 Animal Alerts**  
Equine Herpes Virus (42)



# What we need to do

- **Prepare with the possibility of an outbreak in mind**
- **Quarantine horses quickly and manage movement**
- **Better farm and event biosecurity planning**



# Preventative Measures

- **Limit *horse-to-horse* contact.**
- **▪ Limit *horse-to-human-to-horse* contact.**
- **▪ Avoid use of communal water sources.**
- **▪ Avoid sharing of equipment unless thoroughly cleaned and disinfected between uses.**
- **▪ Monitor horses for clinical signs of disease and report any temperature over 39°C to a veterinarian.**

# What we need to know

- **Understand EHV 1 in NZ**
  - 1. Pathogenic potential of virus**
    - -Investigate local viral strains – research project
  - 2. Host factors to watch for**
  - 3. Alerting Environmental factors**





# How to find out

**Dial 0800 809 966**

**Collect epidemiological data**

**Get smarter at endemic disease surveillance**



# Why Endemic Disease surveillance

**Effective Surveillance systems produce data which once analysed and interpreted, support decisions regarding disease management.**

**Lack of surveillance leads to a cycle of neglect**

**Data is needed to advocate for control and prevention**

**Surveillance is a strategy against surprise**

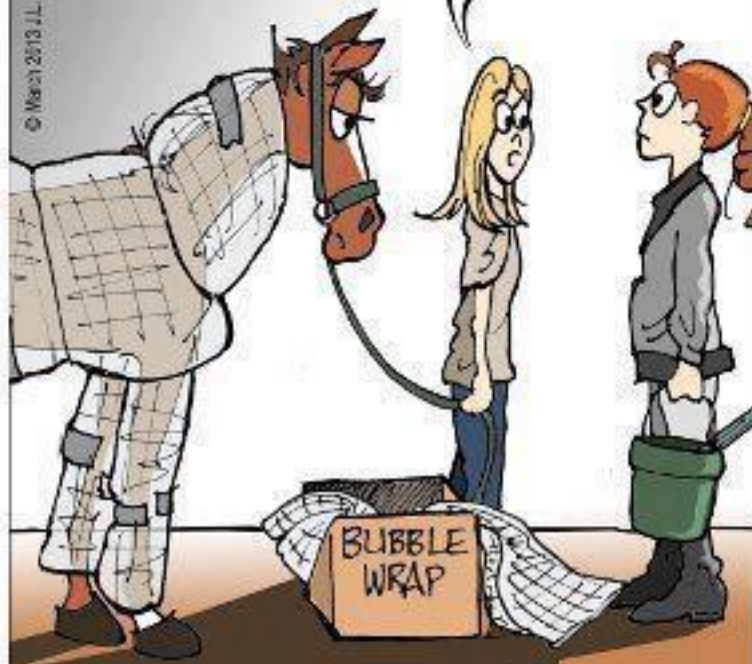


# Why Endemic Disease surveillance

**Whose job is it....to minimise the effect of the disease on the population**

- **A joint responsibility of horse owners and government and vets, who should lead?**
- **Less disease, better welfare....and less cost**



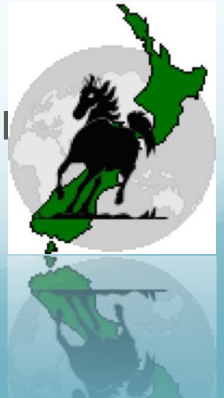


Because I got  
his vet bill today,  
that's why!

BUBBLE  
WRAP

# New Endemic Surveillance thinking

- Information on location communicable disease should be publicly available?
- We have the tools -smart phones with location services?
- Industry owned?
- Use existing international surveillance systems eg, promed? Healthmap? Equinella?
- Lets get proactive and rather than tracking disease track risk factor surveillance



TWITTER KNOWS WHEN YOU'RE GETTING SICK BEFORE YOU DO. RESEARCHERS AT THE UNIVERSITY OF ROCHESTER ANALYZED MILLIONS OF TWEETS AND CREATED AN ALGORITHM THAT CAN PREDICT WITH 90% CERTAINTY WHEN YOU'LL GET THE FLU - EIGHT DAYS BEFORE YOU SHOW SYMPTOMS. THEY USE PATTERNS OF OTHERS' TWEETS IN YOUR LOCATION AND COMPLAINTS OF ILLNESS IN YOUR SOCIAL CIRCLE TO CRUNCH THE DATA.



Thanks to vets at MVS- Massey and MPI staff  
and NZEHA committee-



**Prevention is not better than cure it is the best cure -  
Sachidanand Das**

