Cold chain update

Never break the chain!

IMAC Pre-Conference Workshop
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Presented by Diana Murfitt
Senior Advisor - Immunisation
Ministry of Health
Overview

• Cold chain background
• Ministry of Health expectations
• Highlights from the Standards
• What’s been happening this year?
• Reporting cold chain failures
• What’s next?
• IMAC cold chain video
Thank you for all of your hard work!
Background

• Cold chain failures are costly, resource intensive and time consuming

• 2014/15 National Review of Cold Chain Management Practices

• The Review recommendations informed the:

  - *National Standards for Vaccine Storage and Transportation for Immunisation Providers 2017*

  - Cold Chain Accreditation process and documentation

  - Use of chilly bins to store and transport vaccines

  - National Cold Chain Audit
Ministry of Health expectations

• All immunisation providers achieve the National Standards requirements

• The 10 standards ensure all vaccines administered are safe and effective
Cold chain definitions

Cold chain breach

Cold chain excursion

Cold chain failure
Highlights from the Standards

- Pharmaceutical refrigerators must be used and replaced every 10 years
- Data loggers are downloaded weekly & the data reviewed
- Data loggers are required for off-site vaccination clinics
- Standards outline:
  - off-site monitoring processes and equipment
  - equipment for temporary vaccine storage
- DHBs develop a process for managing cold chain non-compliant providers by 1 February 2018
What is a Pharmaceutical refrigerator?

Vaccine/Medical/Laboratory/Pharmaceutical refrigerator

• A refrigerator that is designed to maintain the +2°C to +8°C temperature range

• Marketed for use in the storage of pharmaceuticals/vaccines/medicines

• Not a domestic fridge

• Not for food storage
**Why replace a refrigerator?**

- Most cold chain failures have occurred in fridges older than 7 years
- Even if a part is replaced (e.g. fan) the rest of the fridge is still old
- Recommendation is to replace rather than repair an old refrigerator
Chilly bins

- Vaccines are vulnerable to both the heat and cold in chilly bins
- School programme cold chain failures have highlighted the benefits of using data loggers in chilly bins
- The use of chilly bins and their temperature monitoring is variable across providers
But... Despite clear processes we are still experiencing cold chain failures
So far this year

500 people have been affected by known cold chain failures and required re-vaccination

Why?

• Fan failed in an old refrigerator
• No cold chain processes in place
• Vaccines left out of the cold chain
• Cold chain policy was not followed
• Vaccines were placed in a domestic refrigerator during a power outage
DHB Cold Chain Reporting Template

• The Ministry must be confident the immunisation facility can safely deliver immunisation services

• Template developed to document and report a cold chain failure

• Includes information about the:
  - key stakeholders
  - events leading to the failure
  - communication strategy
  - clinical advice/support
  - number affected & progress on re-vaccination
  - actions taken to ensure a failure does not occur again
### Roles and responsibilities in managing a cold chain failure

| **DHB immunisation lead** | • Key contact for the Ministry’s Immunisation Team  
• Responsible for providing a weekly update using the template to the Ministry |
|---------------------------|------------------------------------------------------------------------------------------------|
| **Immunisation coordinator** | • Responsible for completing and updating the template on behalf of the DHB (and PHO)  
• Managing the cold chain failure in conjunction with the facility |
| **IMAC regional immunisation coordinator** | • May offer expert advice to the facility and immunisation coordinator on planning and offering re-vaccination |
What happens at the Ministry?

- DHB lead notifies the MOH
- Immunisation Team
- Immunisation Team sends the DHB reporting template
- Immunisation Team notifies senior managers and the Minister’s Office
- DHB provides weekly updates to the Immunisation Team (as required)
- Immunisation Team updates managers and Minister’s Office
What’s next?

• DHB Cold Chain Failure Reporting Template now finalised

• Cold Chain Flow Chart has been finalised and is available for immunisation coordinators

• COOL Project results to be reviewed and incorporated in the Standards

• National Cold Chain Audit reporting summaries will be made available

• IMAC cold chain update is in development
CCA for pharmacists

- Expansion of the role of Medicines Control to undertake CCA for community pharmacists – delayed but will be in place from 1 January 2018
- Pharmacy licence indicates CCA
- Medicines Control have been reviewing the Ministry of Health requirements for pharmacy equipment:
  - pharmaceutical refrigerator
  - two temperature monitoring devices (electronic device with digital display for daily recording and a data logger for weekly download and review)
- Working group to review CCA processes with the Ministry to ensure safe vaccine storage is maintained
- Immunisation coordinators will remain responsible for clinical assessment and immunisation advice (including on cold chain) for pharmacists
IMAC video

Cold Chain in New Zealand: A brief overview

Note:

The video was played at the Pre-Conference Workshop and can be found at:

https://player.vimeo.com/video/226218279

http://www.immune.org.nz/health-professionals/cold-chain
“Chains keep us together”

Thank you