

SAFETY OF VACCINES DISTRIBUTED BY MOHSS

Ensuring high quality, safe and potent vaccines in all Public Health Facilities

The Ministry of Health & Social Services treats the safety and potency of vaccines as top priority. Therefore we only procure World Health Organisation (WHO) pre-qualified vaccines. WHO pre-qualification requirements are stringent for vaccines to be qualified as safe and of high quality. Vaccines are sensitive to changes in temperature; their potency is lost if exposed to temperatures outside their specified conditions. Therefore to maintain quality, safety and potency of the vaccines, they must be handled in a cold chain system at all times.

The cold chain system is essential to ensure that safe and potent vaccines reach the person being immunized all the way from the manufacturer to the final vaccination. It is a means for storing and transporting vaccines from the manufacturer to the recipient. Competent personnel, the right equipment for storage of the vaccines and procedures for maintaining the cold chain are some of the crucial components of the cold chain system.

The Ministry of Health & Social Services recognises the importance of the cold chain system and has mechanisms in place that adhere to the WHO standards on safe vaccine handling and the cold chain system. The common elements of all cold chain systems are a series of storage and transport links through a network of special vaccine fridges, cold boxes and vaccine carriers that keep vaccines at a safe temperature throughout their journey and while in storage.

Two methods of monitoring the vaccine cold chain are used, temperature logging and vaccine vial monitors. Thermometers are kept in all vaccine fridges. Temperature readings from the vaccine fridge are logged twice daily in a standard temperature monitoring chart.

The second method is monitoring vaccine vial labels. A vaccine vial monitor (VVM) is a label on a vaccine vial that registers exposure to inappropriate temperatures over time. In this way the storage history of any individual vial can be seen at a glance so that the health worker knows if the vaccine is safe to use or if it has been exposed to temperatures outside the recommended storage conditions. The indicator on the vial is checked before administering a dose to a child or returning any unused stock to the vaccine fridge.

As soon as the Ministry received the report that a child had died in Windhoek shortly after receiving DPT vaccination, the Ministry initiated detailed investigations. This included investigation into the cold chain practices in the health facility where the child received their immunisation. All recommended procedures were being followed in the health facility.

Central Medical Stores:

Some of the steps that are taken by our MOHSS Central Medical Stores (CMS) to ensure all the vaccines procured and subsequently distributed to health institutions are safe and efficacious including the following: -

Procurement level:

CMS buys only WHO approved vaccines, from WHO approved suppliers. Quality assurance is the Supplier's responsibility up to the CMS receiving bay.

Goods Receiving Level:

When the suppliers deliver vaccines, a checklist is followed according to SOP to ensure that the delivery meets the set standards before it is accepted into stock:

- Packing is checked to see that it is intact and is sound for cold chain standards for maintaining optimum temperatures in transit. Reject delivery if it does not comply
- Cold chain monitors are checked to see that temperature was maintained within set limits during transit. Reject if temperature went out of set limits
- Expiry dates are checked for compliance with contract terms i.e. 24 months shelf life. Reject if short dated.
- Consignment is kept at receiving bay for minimum time for checking and then transferred to cold room.

Storage level:

In order to maintain the integrity, efficacy and safety of the vaccines, storage conditions are strictly controlled and monitored.

- Vaccines are kept in the cold room with temperature range of 2 - 8°C, which optimum to prevent freezing or getting spoiled by heat.
- In order to maintain this temperature range, the cold room is equipped with a computerized temperature monitor, which sends an SMS to the maintenance technician and the pharmacist whenever the temperature goes outside the set range. This is 24/7 facility, including weekend and public holiday. The temperature of any of the cold rooms can be checked remotely and read off the system from the supervisor and pharmacist's desk. Intervention can be initiated should this be called for.
- A freezer, in which Polio vaccine is kept at -20 ° C, is similarly monitored.
- A generator, which kicks in automatically in cases of power failure or fluctuations is in place.
- All vaccines are batch tracked since November 2008. This also enables close monitoring of expiry date to prevent short dated stock from being sent to institutions.

Dispatch and Transport Level

Steps are taken at the dispatch and transport level to ensure that the cold chain is not broken before the vaccines reach institutions.

- After issuing out, vaccines are kept in the cold room until the morning of the delivery day when they are counterchecked and suitably packed in cold boxes for delivery to the destinations.
- The vaccines are packed with enough sufficient previously frozen ice packs, in cold box for delivery to institutions

A possible visit to the MOHSS Central Medical Stores can be arranged if the media are interested.