**VACCINE HANDLING AND STORAGE POLICY**

**Definition**

The cold chain can be defined as the storage and transport of pharmaceuticals requiring controlled low temperature storage between 2-8°C from manufacturer to the point of administration to a patient.

**Background**

Inadequate temperature control during storage and transport of vaccines or fridge line pharmaceuticals can reduce the efficiency of the product. For vaccines it can compromise attainment of a satisfactory level of immunity.

Freezing can irreversibly denature proteins and products such as emulsions become physically unstable. It can cause deterioration of increased reaction to vaccines. It can also produce hairline cracks in the ampoules, potentially contaminating the contents. The glass spicules produced may also cause serious local adverse reactions.

**Ordering of vaccines**

The Nurse is responsible for stock control and Viv Ward is responsible for ordering.

We will order vaccines on a regular basis to maintain appropriate stock levels in order to avoid over/ under stocking and vaccines expiring before use.

Viv Ward places the vaccine orders via telephone to the appropriate vaccine company and keeps a signed record of this order.

**Receipt of vaccines**

All orders must be checked on receipt for leakage, damage and discrepancies. In the event of a discrepancy contact the supplier.

The vaccine type, brand, quality, batch numbers and expiry dates should be checked against the delivery sheet and the date and time at which they were received written on the delivery sheet. The delivery must be signed for.

On receipt, vaccines should be unpacked from the outer cardboard book. However they must be kept in the original packaging as they may need to be protected from light. The vaccines must be placed in the designated fridge immediately and must not be kept at room temperature.

The clinic must keep a record of all vaccines received.

**Storage conditions**

The fridge must be a specialised refrigerator for storage of pharmaceuticals. The fridge should be dedicated to storing pharmaceutical products only. Clinical specimens must be stored in a separate fridge.

All fridges must be kept in a locked room with restricted public access.

The fridge must not be sited in front of any heat source. There must be enough space for air to circulate freely around the back of the fridge. The fridge must be plugged in securely with a label ‘Do not switch off’. The fridge must be monitored with digital maximum/ minimum thermometer which also records the actual temperature. Calibration of thermometers should be checked annually.

For external thermometers, the naked probe should be suitably housed to simulate packaged pharmaceuticals and to minimise fluctuations in temperature caused by air movements.

The fridge must be regularly cleaned and defrosted according to manufacturer’s instructions.

The content should be evenly distributed to allow air to circulate. The fridge must not be overfilled.

Out of date stock must not be stored in the fridge.

Stock must be rotated according to expiry date and the older stock positioned at the front of the fridge.

Any unused vaccines from a clinic session which have been stored between 2-8°C may be returned to the fridge for future use. They must be marked and dated so that they will be the first stock used at the next session. If the storage criteria has not been met during a session, stock must not be returned for reuse. To reduce waste a minimum amount of stock should be removed from the fridge at any time.

**Monitoring the fridge**

The Nurse is responsible for monitoring the fridge

The following must be monitored and recorded each working day on the fridge monitoring sheet

* The actual temperature
* The maximum temperature since the thermometer was last reset
* The minimum temperature since the thermometer was last reset

The thermometer must be reset after each reading is made.

Any clinic refrigerator temperature falling outside the limits of 2-8°C must be reported to Dr Larh. Further advice will then be sought from the product manufacturer or the medicines management team.

**Transporting products**

The time between removing the vaccines from cool storage and use must be kept to a minimum

A validated cool pack/ box must be used for transporting vaccines requiring cold storage packed with accordance to the manufacturing instructions.

**Disposals including returns**

At the end of the immunisation session any remaining reconstituted vaccine must be placed in an appropriately coloured sharps bin for incineration and must not be returned to the pharmacy.

**Spillage**

If spillage of vaccine occurs, gloves should be worn and the spillage soaked up with paper towels immediately taking care to avoid skin puncture from glass or needles. Gloves/ towels should be sent for incineration.

The area should be cleaned with a chlorine releasing product.

Spillage on skin should be washed off with large amounts of water.

Affected eyes should be irrigated well, preferably with sterile 0.9% normal saline.

**What to do if the Cold chain policy breached**

Quarantine vaccines and perform a rapid assessment of the situation and attempt to ascertain how long the fridge has been outside of the recommended temperature range

         Contact the vaccine manufacturers to get the latest vaccine specific stability information

         Inform the Screening and Immunisation team ([england.essexatimms@nhs.net](mailto:england.essexatimms@nhs.net), 011382 49101) of the incident

         Should any vaccines be recommended to be discarded, this must be logged onto the ImmForm website as a ‘Stock Incident’. ([www.immform.dh.gov.uk](http://www.immform.dh.gov.uk))

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| --- | --- | --- | --- | --- | --- | --- |
| **DATE** | **ACTUAL** | **MAXIMUM** | **MINIMUM** | **TIME READING TAKEN** | **RESET THERMOMETER** | **INTIALS** |
|  | BETWEEN  2 – 8 **°C** | NOT > 8 **°C** | NOT < 2 **°C** |  | YES/NO |  |
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**THE LOUGHTON SURGERY FRIDGE MONITORING SHEET**

**MONTH.................................................. YEAR.....................................................**

**STAFF.....................................................**