New products for management of diabetes

**Insulin short-acting aqueous solution for injection &
Insulin intermediate-acting suspension for injection**

**WARNING** Insulin must always be transported and stored at temperatures between +2\(^{\circ}\) and +8\(^{\circ}\)C s (Cold chain).

**Background**

UNICEF has made commitments towards the achievement of the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs), starting with its Strategic Plan for 2018–2021. SDG 3 to “Ensure healthy lives and promote well-being for all at all ages” includes commitment to reduce premature mortality from non-communicable diseases (NCDs) through prevention and treatment as well as to achieve universal health coverage (UHC), including access to safe, effective, quality and affordable essential medicines for all. Towards this end, UNICEF seeks to improve access to medicines and products for diagnosis, treatment and monitoring of NCDs such as diabetes in children and adults particularly in low and middle-income countries in both humanitarian (emergency) and development settings.

**Purpose**

The purpose of this bulletin is to provide information about:

1. Insulin products available from UNICEF SD
2. Related products to support use of insulin
3. Cold chain storage and shipping requirements

**Product Range**

To support UNICEF’s overarching global commitments and countries to have adequate and sustainable access to affordable and quality assured insulins, UNICEF has now fully added 2 human insulin products into its portfolio, in line with the WHO Model List of essential Medicines. Insulin is also part of the Interagency Emergency Health Kit 2017 (IEHK)

**New Insulin products**

<table>
<thead>
<tr>
<th>Material No.</th>
<th>Material Description</th>
<th>Weight and Volume of one vial</th>
<th>Shipper size</th>
<th>Weight and Volume of shipper</th>
<th>Indicative price per vial*</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1560500</td>
<td>Intermediate-acting human insulin 100IU/ml suspension for injection, 10ml vial</td>
<td>Gross weight – 0.25 kg Gross volume - 0.000045m(^3)</td>
<td>500 vials</td>
<td>Gross weight - 16.25 kg Gross volume - 0.03m(^3)</td>
<td>See Supply catalogue</td>
</tr>
<tr>
<td>S1560501</td>
<td>Human insulin, soluble, short acting, aqueous solution for injection 100IU/ml, 10ml vial</td>
<td>Gross weight – 0.25 kg Gross volume - 0.000045m(^3)</td>
<td>500 vials</td>
<td>Gross weight - 16.25 kg Gross volume - 0.03m(^3)</td>
<td>See Supply Catalogue</td>
</tr>
</tbody>
</table>

**Syringes with needles**

<table>
<thead>
<tr>
<th>Material No.</th>
<th>Material Description</th>
<th>Weight and Volume of each box/set</th>
<th>Indicative price per box/set*</th>
</tr>
</thead>
<tbody>
<tr>
<td>S0782440</td>
<td>Syringe, insulin, 1ml, U-100,30-31G/BOX-100 barrel with nozzle, stopper and piston/plunger with stainless steel fine needle and a needle orange cap.</td>
<td>Dimensions 19.5x1638x11.8cm Gross weight- 0.428kg Gross volume- 0.0038 m(^3)</td>
<td>See supply catalogue</td>
</tr>
</tbody>
</table>
Storage, Packing and Shipment Requirements for Insulin

**Storage:** Insulin must be stored in a cold room or refrigerator between +2°C and +8°C always. Insulin MUST NOT be frozen. If frozen in error, discard (do not thaw and re-use). A vial should be kept in its outer carton as supplied to protect from light. In-use (opened) vials may be stored below 25°C for a maximum of 28 days from the time of opening. Since this instruction may be different from different manufacturers, please follow the instructions given on the product you have at hand.

**Packing for transport:** Insulin must be well packed to ensure that temperature is maintained between +2°C and +8°C during transportation. Packing materials include: insulated boxes, barriers/loose-fill and cooling elements such as ice packs.

**Shipment:** Insulin must be kept at temperatures +2°C and +8°C (cold chain) throughout the shipment process, including during transit. WHO prequalified time and temperature monitoring devices must be used to monitor the temperature and/or to signal temperature excursions. The best position to place the temperature monitoring device is inside the box (e.g. a small pocket inside the wall of the box) close to the walls of the box. This placement means that it is the device that first detects temperature excursion before the temperature reaches the product.

Shippers and pallet labels must contain all required information including the IATA time and temperature label to indicate the product requires temperature-controlled shipment between +2°C and +8°C.

For more information contact: UNICEF Supply Division, Medicines & Nutrition Centre at mnctechnical@unicef.org

References

World Health Organization Publications on Diabetes

https://www.who.int/diabetes/publications/en/