**Intermediate-acting insulin**

**Indication:** Type 1 diabetes mellitus

**INN:** Isophane insulin

**Medicine type:** Biological agent

**List type:** Core

**Additional notes:** including quality-assured biosimilars

**Formulations:**
- Parenteral > General injections > SC: 40 IU per mL in 10 mL vial as compound insulin zinc suspension or isophane insulin (EML); 100 IU per mL in 10 mL vial as compound insulin zinc suspension or isophane insulin; 100 IU per mL in 3 mL cartridge as compound insulin zinc suspension or isophane insulin; 100 IU per mL in 3 mL pre-filled pen as compound insulin zinc suspension or isophane insulin

**EML status history:**
- First added in 1977 (TRS 615)
- Changed in 1979 (TRS 641)
- Changed in 1984 (TRS 722)
- Changed in 1987 (TRS 770)
- Changed in 1997 (TRS 882)
- Changed in 2007 (TRS 950)
- Changed in 2009 (TRS 958)
- Changed in 2023 (TRS 1049)

**Sex:** All

**Age:** Also recommended for children

**Therapeutic alternatives:** The recommendation is for this specific medicine

**Patent information:** Patents have expired in most jurisdictions

**Tags:** Biological

**Wikipedia:** Intermediate-acting insulin

**DrugBank:** Insulin (Insulin Human)

**Summary of evidence and Expert Committee recommendations**

The Expert Committee recommended that the current listings for human insulin on the core list of the EML and EMLc be extended to include cartridge and pre-filled pen delivery systems. The Committee considered that cartridges and pre-filled pens may offer advantages for patients over vials and syringes in terms of ease of use, greater accuracy of dosing and improved adherence. The Committee acknowledged that affordable access to insulin products remains a critical global health priority.