

The **ICE regimen** is a chemotherapy combination used to treat **relapsed or refractory non-Hodgkin lymphoma** and **Hodgkin lymphoma**, particularly in patients being considered for **stem cell transplantation**. ICE stands for the drugs used:

ICE =

- Ifosfamide
 - Carboplatin
 - Etoposide
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Drug Details:

1. **Ifosfamide** – An alkylating agent that interferes with the DNA of cancer cells to stop their growth.
 2. **Carboplatin** – A platinum-based chemotherapy that damages DNA to prevent cell division.
 3. **Etoposide (VP-16)** – A topoisomerase inhibitor that blocks the enzyme needed for DNA replication.
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Common Protocol:

Typically given in **cycles every 2–3 weeks**, often inpatient or outpatient, depending on the patient's condition. Here's a general outline (can vary by institution):

- **Day 1–3:**
 - Etoposide
 - Ifosfamide
 - Carboplatin (usually on Day 2)
- **Supportive medications:**

- Mesna (to protect the bladder from ifosfamide toxicity)
 - Anti-nausea medications
 - Growth factors (like G-CSF) to support white blood cell recovery
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Side Effects:

- Nausea and vomiting
 - Low blood counts (risk of infection, anemia, bleeding)
 - Fatigue
 - Hair loss
 - Risk of kidney and bladder toxicity (especially from ifosfamide)
 - Neurotoxicity (confusion, encephalopathy – especially from ifosfamide)
 - Electrolyte disturbances
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ICE and Stem Cell Transplant:

The ICE regimen is often used as a **salvage therapy** prior to autologous stem cell transplantation. If a patient responds well to ICE, stem cells may be collected afterward and the patient may proceed to high-dose chemotherapy with transplant.

Let me know if you need info on dosing schedules, how ICE compares to other regimens, or patient care during treatment.