# Enoxaparin (Lovenox®) Considerations for Use*

Non-FDA Approved Indication: Alternative to Oral Anticoagulation for Stroke Prevention in Atrial Fibrillation

<table>
<thead>
<tr>
<th>Black Box Warning*</th>
<th>Epidural and spinal hematomas may occur in patients who are anticoagulated and are receiving neuraxial anesthesia or undergoing spinal punctures.</th>
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</thead>
<tbody>
<tr>
<td>Mechanism of Action</td>
<td>A low molecular weight heparin with antithrombotic properties</td>
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</table>
| Dosing† | **Adult:** 1 mg/kg twice daily

- **Elderly:** No specific dosage adjustment

- **Hepatic Impairment:** No specific dosage adjustment

- **Renal Impairment:**
  - CrCl < 30 mL/min: 1 mg/kg SQ daily

<table>
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<tr>
<th>Contraindications</th>
<th>Active pathological bleeding, thrombocytopenia, history of heparin-induced thrombocytopenia, pork allergy</th>
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<tbody>
<tr>
<td>Major Side Effects</td>
<td>Hemorrhagic event, heparin-induced thrombocytopenia</td>
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<tr>
<td>Dosage forms and Strengths</td>
<td>SQ: solution for injection</td>
</tr>
</tbody>
</table>
| Reversal | Discontinue enoxaparin. Anticoagulation effects should be minimized within 12 hours.
- Protamine, given as a slow IV infusion (1 % solution), may largely neutralize enoxaparin.
  - If enoxaparin was given within the past 8 hours, the dose of protamine should match the dose of enoxaparin given (1 mg protamine neutralizes 1 mg of enoxaparin). If the aPTT remains prolonged after 2-4 hours, a second infusion of 0.5 mg protamine per 1 mg of enoxaparin may be given.
  - If enoxaparin was given more than 8 hours ago, an infusion of protamine 0.5 mg for every 1 mg of enoxaparin may be given. |
| Conversion to/from other drugs | From enoxaparin to warfarin:
- Initiate warfarin when appropriate (usually start on same day or within 72 hours of enoxaparin).
- Continue enoxaparin until INR is within therapeutic range for at least 2 days. |
| Special Notes | Monitor for signs and symptoms of bleeding.
- Monitor hemoglobin, hematocrit, platelets, stool for occult blood.
- Consider monitoring anti-Xa activity (goal 0.3 to 0.7 IU/mL antifactor Xa activity) with severe renal dysfunction, weight < 45 kg, or obese patients.
- Discontinue all heparin products when heparin induced thrombocytopenia is suspected or diagnosed.
- Not adequately studied in patients with mechanical heart valves. |
| Counseling | Report signs and symptoms of bleeding (e.g., unexpected bleeding or bleeding that lasts a long time; red or black, tarry stool; pink or brown urine; unusual bruising; coughing up blood; vomiting blood or vomit that looks like coffee grounds; unexplained pain, swelling, or joint pain; unusual headaches, dizziness, or weakness; recurring nose bleeds) |

* Refer to prescribing information for more complete information.
†Dosages given in the table may differ from those recommended by the manufacturers.

**Sources:**
3. Lovenox® prescribing information, 5/16/07.

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