Subcutaneous NSAIDs in palliative care–parecoxib

Red–for medicines normally initiated and used under specialist guidance.

Introduction

The information below is intended as a guide for use in primary and secondary care to support the management of patients receiving parecoxib for cancer pain management in palliative care.

Subcutaneous parecoxib should only be started under specialist palliative care guidance and patients require ongoing specialist supervision.

Description

Parecoxib is an injectable pro-drug of valdecoxib, a selective COX-2 inhibitor.

Preparations

Note: Administration via the subcutaneous route is unlicensed.

Injection	Parecoxib 40 mg powder for solution for injection vials
	Parecoxib 40 mg powder and solvent for solution for injection vials

ALKALINE PH: Do not mix in continuous subcutaneous (CSCI) with other drugs.

DILUENT: 0.9% sodium chloride

Unlikely to be available in primary care, most products are hospital pharmacy only.

Indications

- Licensed for short-term management of moderate-to-severe acute postoperative pain by intravenous or deep intramuscular injection.
- It can be used for bone pain in cancer where standard therapies have been ineffective; this is unlicensed.

Cautions

- Renal and moderate hepatic impairment.
- Patients with significant cardiovascular risk factors (eg hypertension, hyperlipidaemia, diabetes mellitus, smoking).
- Patients with increased risk of bleed, particularly gastrointestinal.
- Serious skin reactions have been reported; patients are at highest risk when beginning treatment. Parecoxib should be discontinued at the first sign of skin reaction.
- Parecoxib should be discontinued at the first sign of hypersensitivity reactions, for example angioedema and anaphylaxis (frequency not known).

Drug interactions:

- Increased risk of renal toxicity with other nephrotoxic drugs, an example being aminoglycosides.
- Concomitant usage of parecoxib and anticoagulants increases risk of bleeding therefore caution must be used.
- Increased risk of gastrointestinal side effects with corticosteroids, selective serotonin reuptake inhibitor (SSRIs), antiplatelet drugs, or alcohol.
- Possible antagonistic effect with antihypertensives and diuretics as a result of sodium and fluid retention.
- Fluconazole may require a dose reduction of parecoxib.
- Avoid concurrent usage with other non-steroidal anti-inflammatory drugs (NSAIDs).

Liver impairment:

- In moderate liver impairment use with caution and reduce the starting dose to 20 mg, with a maximum dose of 40 mg daily.
- Avoid use in severe liver impairment.

Renal impairment:

- NSAIDs are not recommended in renal impairment, but, if necessary, use with caution.
- If eGFR <30, manufacturers recommend a lower starting dose of 20 mg.

Monitoring:

- Baseline and periodic monitoring of renal function, particularly in patients with pre-existing renal impairment or prolonged NSAIDs use.

Side effects

Common side effects:

- hypertension, hypotension
- peripheral oedema
- dyspepsia, abdominal pain, flatulence, vomiting.
- hyperhidrosis
- oliguria and
- nausea.

Rare but serious adverse effects:

- Severe skin reactions, for example angioedema, erythema multiforme, Stevens-Johnson syndrome.
- Gastrointestinal bleeding and perforation.

- Cardiovascular thrombotic events.

Dose and administration

For the acute treatment of moderate to severe pain

40 mg can be administered by subcutaneous bolus injection. If necessary, increase to 40 mg twice daily, maximum 80 mg in 24 hours.

In adults <50 kg or in the presence of moderate hepatic impairment, or severe renal impairment, halve the above doses.

For the prevention and treatment of background pain

Consider if a loading dose of 40 mg by subcutaneous bolus injection is needed followed by CSCI.

CSCI:

- 40–80 mg/24 hour in a 30 mL syringe.
- Diluent: sodium chloride 0.9%.
- Do not mix with other drugs.

Discontinuing parecoxib: Seek specialist advice.

- This may be needed if treatment is ineffective, the patient is experiencing side effects or is experiencing site reaction.

Practice points

- **Consider co-prescribing a proton pump inhibitor** (such as esomeprazole or omeprazole) for gastroprotection in patients, to prevent gastrointestinal complications.
- Parecoxib's onset of analgesic effect has been reported to be around 30 minutes with a duration of action 6–12 hours from a single dose.
- Parecoxib is not routinely stocked by community pharmacists and may take 24–48 hours to obtain in primary care. This could be relevant for discharge planning to avoid disruptions in symptom management.
- Both COX-2 inhibitors and non-selective NSAIDs are associated with an increased risk of cardiovascular events with long-term use. Monitoring is advised in patients with high cardiovascular risk factors.
- Rare cases of serious skin reactions, for example, Stevens-Johnson syndrome and angioedema, have been reported. Immediate discontinuation is required if these occur.

References

Electronic Medicine Compendium (EMC). SPC Dynastat 40mg Powder for Solution for Injection. 2012 [cited 1 April 2025]; Available from: https://www.medicines.org.uk/emc/product/1606/smpc#gref

British National Formulary (BNF). 89th Edition. England: Pharmaceutical Press. 2025.