Parecoxib 40mg injection for palliative care pain management in adults (≥18 years)

Information sheet for Primary Care Prescribers

Traffic light classification - Amber 2

Key Points

- Subcutaneous parecoxib may be prescribed locally as an adjuvant analgesic in palliative care when the oral route is no longer available or appropriate for a patient and non-steroidal anti-inflammatory drug (NSAID) treatment is indicated. This use is supported by the national Palliative Care Formulary.
- Parecoxib's marketing authorisation is for the treatment of short-term post-operative pain, its use for the treatment of pain in palliative care is unlicensed.
- Treatment will be recommended or initiated by a Palliative Care Specialist with a request for Primary Care continuation.
- There are no routine monitoring requirements requested of Primary Care for patients taking parecoxib in palliative care.

Products available

Parecoxib 40mg powder for solution for injection vials
Cost £49.60 for 10 vials

Licensed Indication

Parecoxib is licensed for short-term management of acute postoperative pain for administration by deep intramuscular injection, or by intravenous injection.
Its use for pain management in palliative care via subcutaneous administration is unlicensed and is supported by the local Trust policies. Unlicensed use requires conversation with the patient documented within the clinical records.

Therapeutic summary

Parecoxib is an injectable pro-drug of valdecoxib, a selective COX-2 inhibitor. COX-2 inhibitors are non-steroidal anti-inflammatory drugs (NSAIDs) that specifically block the COX-2 enzyme, reducing pain and inflammation and are associated with lower incidence of gastro-intestinal side effects compared to traditional NSAIDs such as diclofenac and ketorolac. However, they carry an increased cardio-vascular risk (i.e. heart attack and stroke).
Parecoxib may be used as adjuvant analgesic in palliative care when the oral route is no longer available or appropriate for a patient and non-steroidal anti-inflammatory drug (NSAID) treatment is indicated. Parecoxib is generally preferred for subcutaneous administration over other injectable NSAIDs for subcutaneous administration.
There are no routine monitoring requirements requested of Primary Care for patients taking parecoxib. In general, for patients in the last weeks to days of life the monitoring is carried out infrequently/minimised and restricted to situations where the information would facilitate the investigation and management of symptoms.

Medicines Initiation

Treatment may be initiated for an inpatient or recommended for initiation in Primary Care by the Palliative Care Specialist (this includes Consultants in Palliative Medicine, Community or Hospital Palliative Care Specialist Nurses, Advanced Clinical Practitioners and Pharmacist

Specialist in Palliative Care), followed by ongoing prescribing in Primary Care and supply from community pharmacies.

Dosage and route of administration
Parecoxib can be given 40mg SC once or twice daily, or 40-80mg/24hr via continuous subcutaneous infusion (CSCI). The usual maximum dose of parecoxib in 24 hours (including PRN doses) is 80mg.
The dose should be halved in adults <50kg or in the presence of moderate hepatic impairment or severe renal impairment.

Parecoxib is the only COX-2 inhibitor that is available as an injection enabling administration via the subcutaneous route. The route of administration in the marketing authorisation is the iv route, subcutaneous administration is unlicensed.
Parecoxib must only be initiated and all dose alterations done by or on advice of a Hospice Consultant/Palliative Care Specialist (as detailed above) who will also consider all other medicines the patient is on.

Reconstitution
Parecoxib injection is a dry powder which requires reconstitution with 0.9% sodium chloride only. Each 40mg vial must be reconstituted with 2ml of 0.9% sodium chloride.

Method of administration
1. Parecoxib doses up to 40mg can be administered as a SC bolus once or twice a day.
2. Parecoxib 40 – 80mg can be administered as a continuous subcutaneous infusion (CSCI) via a syringe pump. 0.9% sodium chloride must be used as the diluent.

Syringe driver compatibility
Parecoxib is alkaline and is likely to be incompatible with many commonly used (acidic) medicines. The Palliative Care Formulary details experience of compatibility with some alkaline medicines. Advice should be sought from Palliative Care Specialists when parecoxib is administered in the same CSCI syringe as other medicines.

Prescribing information
Prescribe suitable quantity of 0.9% sodium chloride for reconstitution and as diluent or flush.
Community pharmacies are unlikely to routinely stock parecoxib. It may take one to two working days to obtain supplies for patients in Community.
Where initiated for inpatients, the initial treatment will be supplied on discharge to ensure treatment continuity.

Duration of treatment and deprescribing guidance
It is expected treatment will be continued for as long as required and clinically appropriate.

Monitoring Requirements and responsibilities
There are no routine monitoring requirements requested of Primary Care for parecoxib in palliative care. In general, the monitoring is minimised for patient at the end of life.

Adverse effects
Discontinue parecoxib at the first sign of a rash involving the skin ± mucous membranes.
Parecoxib has been associated with skin reactions at the site of administration.
Nausea, hypertension, hypotension, oliguria, peripheral oedema, dyspepsia, abdominal pain, flatulence, vomiting, hyperhidrosis.
Serious adverse events are uncommon or rare and include cardiovascular (e.g. serious myocardial infarction, severe hypotension), hypersensitivity (e.g. anaphylaxis, angioedema) and severe skin reactions (including Stevens-Johnson Syndrome).

For information on incidence of ADRs see summary of product characteristics (SPC) available from: https://www.medicines.org.uk/emc

Contraindications

- Hypersensitivity to parecoxib or to any of the excipients listed in the SPC.
- Active peptic ulceration or gastrointestinal bleeding.
- Inflammatory bowel disease.
- Established ischaemic heart disease, peripheral arterial disease, cerebrovascular disease or congestive heart failure.

Precautions

Standard NSAID precautions apply.

- Previous adverse reaction to an NSAID.
- **Renal impairment:** NSAIDs are not recommended in severe renal impairment (CrCL < 30ml/min) because of their effects in the kidneys. However, parecoxib can be used in severe renal impairment at a reduced dose.
- **Hepatic impairment:** valdecoxib exposure is increased in moderate hepatic impairment so the dose of parecoxib must be reduced. Parecoxib is contra-indicated in severe hepatic impairment.
- **Gastroprotection** with a PPI is required with parecoxib for patients at high risk of NSAID related upper GI complications.
  High gastrointestinal risk factors include age >65, history of gastroduodenal perforation, gastroduodenal ulcer, GI bleeding, serious co-morbidity (e.g. cancer, hypertension, CVS disease, diabetes mellitus, hepatic impairment, renal impairment), heavy smoking, excessive alcohol consumption, prolonged requirement for an NSAID, and high doses of NSAID.
- Parecoxib should be used with caution in **patients with significant cardiovascular risk** (hypertension, hyperlipidaemia, diabetes mellitus, smoking).
- **Dehydrated** patients: should be rehydrated before initiating parecoxib.

Clinically relevant medicine interactions and their management

Parecoxib has an opioid sparing effect. Review opioid doses following parecoxib initiation as a lower opioid dose may provide the same level of analgesia.
Pharmacodynamic interactions with other medicines can be predicted from the mode of action and undesirable effect of NSAIDs and can include increased risk of bleeding (e.g. with anticoagulants, SSRIs), upper GI complications (e.g. dexamethasone), renal toxicity, sodium and fluid retention.
General NSAID pharmacokinetic interactions apply to parecoxib. Of particular importance are those medicines with narrow therapeutic indexes e.g. digoxin, lithium and methotrexate due to the risk of toxic levels caused by reduced renal function and/or reduced tubular excretion.
Parecoxib plasma levels can be increased by concomitant administration of fluconazole, the manufacturer recommends a dose reduction for patients also receiving fluconazole.

Further information

This information is not inclusive of all prescribing information and potential adverse effects. Please refer to the latest Summary of Product Characteristics at Electronic Medicines Compendium (emc) and the BNF, Palliative Care Formulary or Palliative Care Matters.

Contacts

John Eastwood Hospice	01623 622626
Hayward House symptom advice line	07595 285014
Medicines Information at SFH	01623 672213
Medicines Information at NUH	0115 9709200
Bassetlaw Hospice	0115 955 5440
Lincolnshire - St Barnabas	01522 511566

References

Parecoxib 40mg powder for solution for injection - Summary of Product Characteristics (SmPC) - (emc) | 11889 available at:
https://www.medicines.org.uk/emc/product/11889/smpc

Palliative Care Formulary available at:
https://www.medicinescomplete.com/#/browse/palliative