# Pruritus following neuraxial opiate administration in obstetric patients

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| **Target audience** | Maternity staff |
| **Patient group** | Pregnant women |

## Summary

Diamorphine or fentanyl administered via the neuraxial (intrathecal (spinal) or epidural) route can be associated with generalised itch (pruritus). Pregnant women seem to be more susceptible to pruritus after neuraxial opiate administration compared with other populations, with an incidence of 60-100%. Although some pregnant individuals do not find the itch troublesome, others find it irritating and distressing.

## Prevention

Consider whether neuraxial opiate is necessary such as in cases of cervical cerclage insertion. Use the minimum effective concentration of neuraxial opioid.

## Treatment

- Naloxone 200 micrograms via subcutaneous route, repeated once after 30min if required.

Naloxone will reverse the effect of opiates in the spinal cord and therefore reduce/eradicate troublesome itch. After a procedure, where neuraxial opiates have been administered (eg. caesarean birth), naloxone should be prescribed by the attending anaesthetic staff. If this has not been prescribed and anaesthetic staff are no longer immediately available, it should be prescribed by obstetric resident medical staff.

If anaesthetic staff prefer, naloxone can be administered intravenously in 40 microgram boluses (titrated to effect) every 5 minutes as required up to a maximum dose of 200 micrograms. Please note that higher intravenous doses (over 2 micrograms per kilogram per hour) are likely to lead to reversal of analgesia effect.

It is recommended that those who are either on treatment for opiate addiction or currently abusing opiates receive intravenous naloxone for treatment of itch as their response to opiate reversal is less predictable and they may experience breakthrough pain at lower doses of naloxone.

## Other commonly-used treatments

### 5-HT3 antagonists (eg. ondansetron)

There may be a role for 5-HT3 antagonists in reducing the incidence and intensity of neuraxial opiate-induced pruritus. This benefit is generally seen after neuroaxial administration of morphine but not the other lipid soluble opiates. This is thought to be due to the less lipid-soluble morphine having a slower onset of action therefore allowing time for 5-HT3 receptor blockade in the spinal cord by ondansetron before activation by morphine. However, in obstetric anaesthesia, the lipid soluble opiates, with faster onset of action, are generally used. Therefore, ondansetron is not as effective as its peak concentration occurs 15 minutes following intravenous administration, therefore the 5-HT3 receptors are thought to already be occupied by the lipid-soluble opiates.

Exercise caution with 5-HT3 antagonists in breastfeeding women (BNF 70 March 2024, 2025 suggests to avoid).

### Antihistamines (eg. chlorphenamine maleate)

H1 receptor antagonists have little or no effect on centrally-mediated pruritus. The sedative antihistamines may help by interrupting the itch-scratch cycle by providing needed sleep but are not effective at reducing the severity of the itch.

Exercise caution with all antihistamines in those who are breastfeeding (BNF, 2022-2025; suggests to avoid). Exercise caution with severe asthma and peptic ulcer disease.

## References


British National Formulary (BNF), Sept 2025. https://bnf.nice.org.uk/.

Kumar and Singh. Neuraxial opioid-induced pruritus: An update. J Anaesthesiol Clin Pharmacol 2025; 29(3) 303-307. http://www.joacp.org/temp/JAnaesthClinPharmacol293303-3100074_083640.pdf.

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