4 PAIN MANAGEMENT

4.7 ADMINISTRATION OF INTRAMUSCULAR/INTRAVENOUS OPIOID ANALGESIA

4.7.2 INTRAMUSCULAR ADMINISTRATION OF MORPHINE

Keywords: Morphine, analgesia, naloxone, opioids, IM morphine

BACKGROUND INFORMATION

Morphine is the principle alkaloid of opium and binds to many opioid-receptor sites of the central nervous system, altering the perception of pain and the emotional response to pain. Alterations in mood can include euphoria, dysphoria, drowsiness and mental clouding. There is almost no evidence supporting the efficacy or safety of intramuscular morphine in labour.

SIDE EFFECTS

- Suppression of the cough reflex by effect on the medullary centre.
- Respiratory depression due to reduced response in the respiratory centre to carbon dioxide. 4
- Decreased gastric motility.
- Alterations of the endocrine and autonomic nervous system. 5

KEY POINTS

1. Animal studies suggest morphine reduces uterine response to oxytocin and the oxytocic release from the posterior pituitary gland. 3
2. Morphine causes relaxation of smooth muscle. 3
3. Morphine is rapidly transferred across the placenta, with the fetus and neonate excreting the opioids more slowly than adults due to the immaturity of the liver enzymes. 3
4. Morphine may cause respiratory depression in the newborn. 4
5. Intramuscular absorption of morphine peaks in 30 to 60 minutes after administration.
6. The mean elimination half-life for morphine is 2 to 3 hours, but effects may extend up to 24 hours. 6
7. There is an interaction between morphine and promethazine in that the toxicity of the drug may be increased. This combination should be used with caution and the woman monitored carefully.
8. Information about pain management options for labour and birth should be shared with every woman during her antenatal care.
9. This information should include indications for, as well as risks and benefits of pain management options available to her.
10. The value of women’s own coping resources should be recognised and maximised, rather than placing an over emphasis on pharmacology. 1
11. Women should be informed that morphine will provide limited pain relief during labour and may have significant side effects for herself (drowsiness, nausea and vomiting) and her baby (short term respiratory depression and drowsiness). 2
12. The administration of analgesia during labour should not be undertaken without due consideration for the potential risks and the progress of labour.
13. Women should not enter water (birthing pool or bath) within 2 hours of opioid administration. 4
14. Extra caution should be exercised for all types of pharmacological intrapartum analgesia in preterm labour as there are potential adverse effects on the preterm infant due to decreased capacity to metabolise medications.
15. Administration will comply with Clinical Guideline P 2.2.3 Schedule 8 Controlled Medications Administration.
16. A paediatric RMO shall be present for all births where the woman has received morphine analgesia within four hours of birth.
ADMINISTRATION

1. Inform the woman of the potential maternal and neonatal consequences of morphine administration.
2. Ensure the woman has no allergies or contraindications to morphine.
3. Ensure the availability of an opioid antagonist e.g. naloxone hydrochloride.
4. Consider giving an anti emetic with the morphine.
5. Administer as per Clinical Guideline P 2.2.3 Schedule 8 Controlled Medications Administration
6. Following administration measure and document maternal observations as follows:
   • Respirations hourly for the duration of labour.
   • Blood pressure hourly (or more frequently if clinically indicated).
   • Monitor urine output and observe for a palpable bladder.
7. Document the administration on the Neonatal History Chart (MR 410), Medication Chart (MR810) and the partogram (MR 270).

REFERENCES (STANDARDS)


Do not keep printed versions of guidelines as currency of information cannot be guaranteed.
Access the current version from the WNHS website.