ANAESTHESIA & SEDATION FOR BREASTFEEDING PARENTS

CLINICIAN INFORMATION

Summary

Most people can continue to breastfeed following sedation or anaesthesia.
"Pumping and Dumping" (or expressing and disposing of the expressed breast milk) is almost never required.

Pre-Operative Care

- Ask about breastfeeding – don't assume a patient is or isn't breastfeeding based on age of child
- Postpone non-urgent surgery until infant is older if practical
- Keep patient hydrated and avoid prolonged starvation - first on the list if possible, encourage clear oral fluids until 2 hours pre-operatively, low threshold to start IV fluids
- Recommend breastfeeding or expressing as close to time of surgery as possible and as soon as possible afterwards
- Consider recommending patient to have a stockpile of breastmilk pre-op if long surgery planned (or for babies at risk of apnoeas as below in "post-op")
- Treat anaemia
- Consider lactation consultant review particularly for major surgery or surgery involving the breasts

Intra-Operative Care

- Regional if possible
- Careful post-op nausea and vomiting (PONV) prophylaxis to optimise return to eating and drinking
- Maintain euvolaemia and minimise blood loss
- Multi-modal opioid sparing analgesia

Post-Operative Care

- Ensure a responsible adult is able to help with baby (especially if significant doses of post-op analgesics required)

- Healthy term or older infant - resume breastfeeding as soon as awake, stable and alert (have baby or pump available to allow this)
- Infants at risk of apnoeas - possible benefit of brief interruption of breastfeeding (6-12 hours). Options: for this include expressing and storing milk (to use when infant is older) or express and mix with other milk expressed pre-op to dilute any medications
- Multi-modal opioid sparing analgesia
- Advise to avoid co-sleeping if mother is drowsy/impaired

Medications & Breastfeeding

General Principles

Most well babies will not come to harm by continuing to breastfeed following maternal sedation or anaesthesia. There are some babies in whom extra care should be taken; these include - neonates, preterm babies and those with a history of apnoeas.

The key factors in determining the effect of maternal medications on infants are the degree of entry into breastmilk and their oral bioavailability. Of all the drugs commonly given during anaesthesia or sedation, the most concerning medications are opioids although they are generally safe unless very large doses are required.

Anaesthetic Agents

Local Anaesthetics: safe as poorly absorbed orally and large polar molecules so don't transfer into breastmilk easily. Helpful as opioid sparing.

Induction agents, volatiles, midazolam: very brief plasma distribution phase -> low/nil entry into breastmilk

Neuromuscular blockers: safe – low lipid solubility, poor oral bioavailability

Reversal agents: neostigmine/glycopyrrolate likely safe, sugammadex has low PO bioavailability

Non-Opioid Analgesics

Paracetamol: low transfer to milk (dose received by infant less than usual dose given to them)

NSAIDs: limited transfer due to low lipid solubility, high protein binding. Caveat: babies with duct dependent cardiac lesions (avoid giving or give and avoid breastfeeding in this situation)

Ketamine: low doses for pain ok, induction doses unknown

Gabapentin: likely safe in the short term

Pregabalin: limited data, consider using gabapentin instead

Dexmedetomidine: low oral bioavailability so baby's absorption via breastmilk likely to be very low.

Opioid Analgesics

All transfer to breastmilk to some extent and should be used at lowest dose for shortest possible period of time. Take extra care with those metabolised by CYP2D6 (codeine, tramadol, oxycodone).

Specific opioids:

Morphine - relatively low PO bioavailability, limited transfer to milk. Usually the opioid of choice for post-operative analgesia.

Fentanyl – low PO bioavailability, breastmilk levels very low 2h post-admin

Remifentanil – esterase metabolism means very short half life even in infants

Pethidine – low transfer to milk but risk of neonatal sedation for up to 36h post administration

Oxycodone – caution especially if mum is sedated, "Lactmed" recommends maximum of 30mg/day but this is probably conservative advice.

Codeine – risky in ultrarapid metabolisers (mum and/or baby), recommend avoiding. Numerous documented cases of sedation/respiratory depression with one death of a baby due to an ultra-rapid metabolising mum

Tramadol – FDA concerns due to CYP2D6 metabolism. SPANZA (Society for Paediatric Anaesthesia) subsequently released a statement: low levels in breastmilk, tramadol safer than codeine and strong opioids

Antiemetics

May be best to choose non-sedating options e.g. ondansetron, dexamethasone, metoclopramide. Promethazine and scopolamine MAY reduce milk supply.

Other Medications

Antibiotics - most are safe in breastfeeding although some may cause gastrointestinal side effects in breastfeeding babies. It is recommended that some antibiotics are avoided e.g. doxycyline, ciprofloxacin, and high doses of metronidazole.

Cardiovascular medications - most are safe although if amiodarone is required it is usually recommended that a woman express and dispose of her breast milk.

Radiological contrast - almost all safe in expressing except Technitium containing contrast which requires breastmilk to be expressed and disposed of for 12 hours.

For more details about these medications or for those not listed above we recommend searching http://www.infantrisk.com/