Utilization of an Educational Tool by Anesthesia Providers for Breastfeeding Mothers Receiving Anesthesia

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Background & Purpose

- Undergoing surgery & anesthesia can interrupt breastfeeding & lead to early cessation.
- Current ASA & AANA's guidelines encourage the resumption of breastfeeding as soon as the mother regains wakefulness & can safely hold her infant.
- Due to inconsistencies with adherence to current guidelines from anesthesia providers, this has led to early discontinuation of breastfeeding.
- **Purpose:** To identify if there is a change in anesthesia providers' practice in breastfeeding education using a breastfeeding educational tool.

Method

- *Project Design:* Quality Improvement (QI)
- *Setting:* An academic university hospital
- *Participants:* anesthesiologists, anesthesia residents, CRNAs, and SRNAs.
- *Primary Outcome:* Providers practice change
- *Secondary Outcome:* Increase screening of breastfeeding patients & benefit of educational tool
- Pre-Intervention: 4 weeks of chart review & 2 weeks of pre-intervention survey
- Intervention Phase- 1 week introduction of tool
- Post-Intervention: 4 weeks of chart review & 2 weeks of post-intervention survey

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA
BREASTFEEDING EDUCATION TOOL FOR ANESTHESIA PROVIDERS

PRE-OP
- Document *nursing mother* status in pre-op assessment.
- To maintain breastmilk supply, consider peripheral IV hydration (500 mL – 1 liter), if appropriate.

INTRA-OP
- General, regional, and local anesthesia are safe for breastfeeding mothers.
- Most anesthetics are short-acting and have less than a 10% relative infant dose, which is safe for breastfeeding.

POST-OP
- Encourage lactating patients to pump or resume breastfeeding when fully alert in PACU.
- Consult HUP's lactation team for assistance by contacting **(215)-279-2656.**

Safe	Use with Caution	Consider Avoidance
Inhalational Anesthetics[1-17]	**Hydromorphone**[1-14,40-42] (dose dependent)	**Oxycodone**[1,2,4-12,45] *limit to 30 mg/day
Intravenous Anesthetics[1-14] Propofol[17-20], Etomidate, & Dexmedetomidine[22-24]	**Ketamine**[5-10, 43-44]	**Hydrocodone**[6-12,42] • **Vicodin** (hydrocodone w/ acetaminophen) *limit to 30 mg/day
Local Anesthetics[1-2, 4-14, 25-30]		**Prilocaine**[27,25,47]
Opioid Analgesics[1-14, 31-32] Fentanyl[18,33-34] Remifentanil[19] Morphine[35]		**Meperidine**[1,3-14,48]
Benzodiazepines[1-14] Midazolam[18]		**Diazepam**[1-4,6-11,14,43,48]
Neuromuscular blocking & reversal agents[2-12] Anticholinergic, Sugammadex[36]		**Codeine and Tramadol**[1-2,4-10,49-50]
Antiemetics[2,4-12] Metoclopramide is a lactogogue		**Droperidol**[4,7,51]
Non-Opioid Analgesics[1-2,4,6-13,37] Acetaminophen, Celebrex, Ketorolac, Gabapentin[38-39]		**Scopolamine**[7,9-12]

Current recommendations:
It is safe to resume breastfeeding once lactating patients are fully alert AND safely able to hold baby.

There is NO need to pump and discard breast milk after receiving anesthesia.

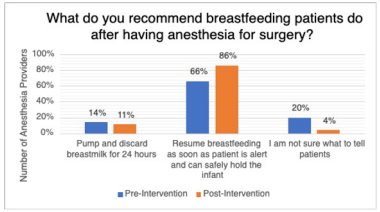
***Additional precautions needed in breastfeeding patients with premature babies and neonates.**

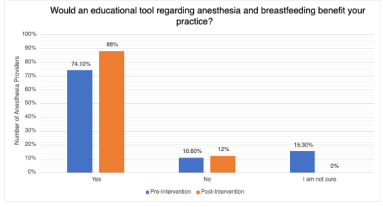
Panakkal, A. (2022). *Best practice perioperative guidelines for breastfeeding patients.* Hospital of the University of Pennsylvania Microsoft Teams.

Additional breastfeeding resources:
Medication not listed? Try the Drugs and Lactation Database (LactMed®) https://www.ncbi.nlm.nih.gov/books/NBK501922/
Multilingual breastfeeding education: Academy of Breastfeeding Medicine clinical protocol #15: Analgesia and anesthesia for the breastfeeding Mother (2017) https://www.bfmed.org/index.php?option=com_content&view=article&id=42:protocols&catid=20:site-content&Itemid=130

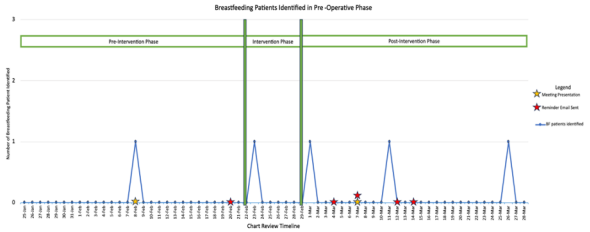
ASA Website:
Statement on Resuming Breastfeeding after Anesthesia

Results





Breastfeeding Screening Frequency



Summary & Conclusion

- The educational tool facilitated change in practice by increasing the number of providers recommending resuming breastfeeding as soon as the patient regains consciousness and an increase in preoperative screening frequency.
- The QI project highlighted discrepancies in current breastfeeding recommendation awareness among anesthesia providers regarding breastfeeding patients receiving anesthesia.
- Although a knowledge gap was identified, the educational tool positively impacted provider awareness and education.

Acknowledgement

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