Breastfeeding and Anesthesia

Sarah E. Dodd, M.D.
Assistant Professor of Anesthesiology and Perioperative Medicine

Disclosure

- No disclosures.

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"I bottle-fed, and I breastfed, and before I knew it, they were all eating stale French fries off the floor of the minivan, and I was like, whatever, thanks for cleaning."

- Joslyn Gray

Case

- A 26 year-old G1P1 female presents for tonsillectomy for tonsiliths.
- Otolaryngologist recommended weaning of her infant child prior to her operation.
- She reports that she has not yet weaned the infant as planned and became tearful.

  The patient and her 13 month-old infant are otherwise healthy.

Importance

- Human milk is recommended nutrition for infants.
- Contact with healthcare may be a risk factor for early weaning.
- Some mothers have rapid decrease in supply with missed feedings.

https://www.cdc.gov/breastfeeding/data/nis_data/results.html

“Pump and dump”

- Often considered “the safe thing to do”
- Infrequent use of knowledge
- Not always included in textbooks or review materials
- May be uncomfortable to discuss

Who’s Breastfeeding?

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Physiology of Lactation

- Most medications move into breastmilk by passive diffusion.
- Return to the plasma compartment by the same mechanism.
- Breastmilk expression is NOT necessary to clear medications.
- Oral bioavailability affects infant exposure.

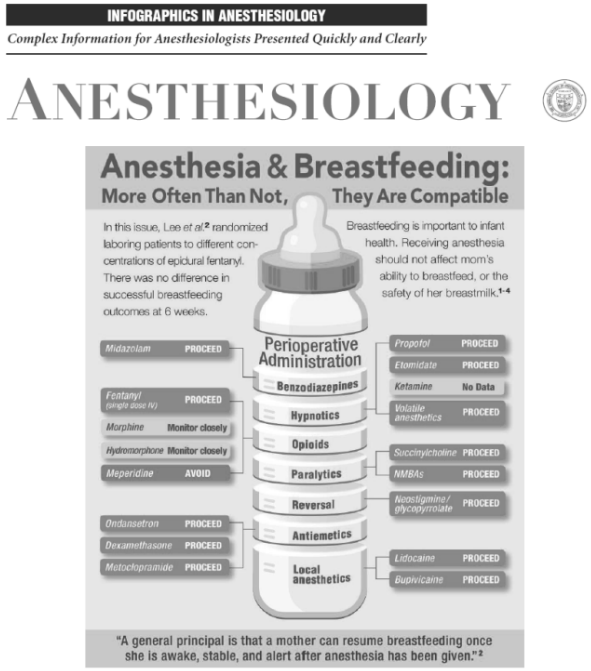
“I just love how physiology and pharmacology interact.”

- Every Anesthesia Applicant, (ever)

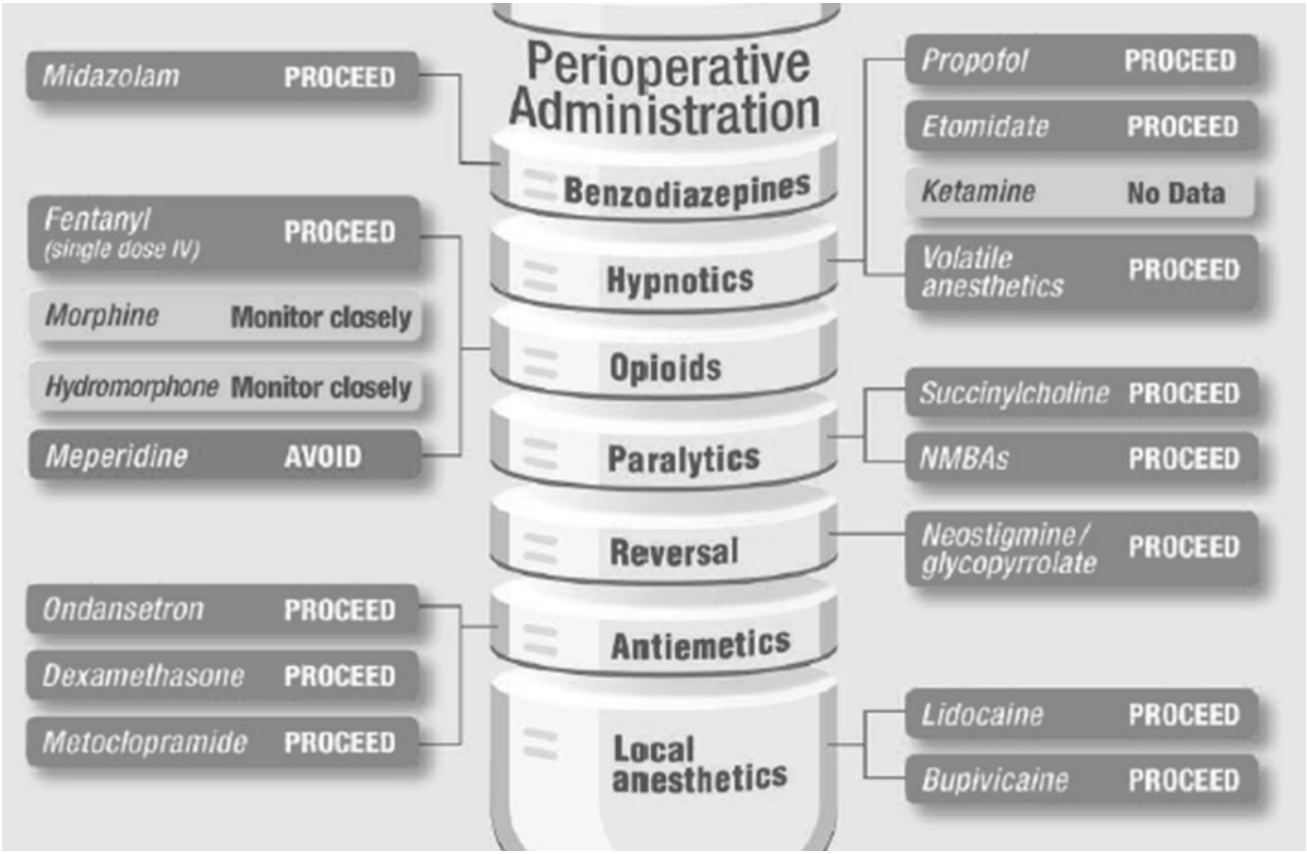
Preoperative Counseling

- Consider contribution to preoperative anxiety
- Discuss current feeding schedule and goals
- Discuss infant health and age
- Patient should bring own pump equipment
- Standard NPO guidelines, but emphasize clear liquid

Medications



Wanderer, J.P., Rathmell, J.P. Anesthes. 2017;127(4):A15.



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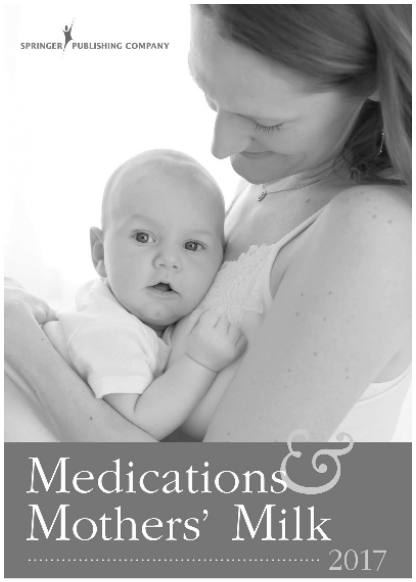
Anesthetic Medications

Class	Compatible	Limited data	Avoid
Anesthetics	Propofol, etomidate, midazolam, volatiles, nitrous oxide, local anesthetics	Dexmedetomidine ketamine	diazepam
Pain medications	NSAIDs, acetaminophen, fentanyl, morphine, oxycodone (< 30 mg/day)	hydromorphone	Meperidine, codeine
Antiemetics	Dexamethasone, ondansetron, metoclopramide	droperidol	
Other	Succinylcholine, NMDRs, neostigmine, glycopyrrolate, sugammadex		

You are caring for a lactating patient, the provider giving you a break gave 10 mg IV ketamine. How will this affect your patient's lactation plan?

Example: ketamine

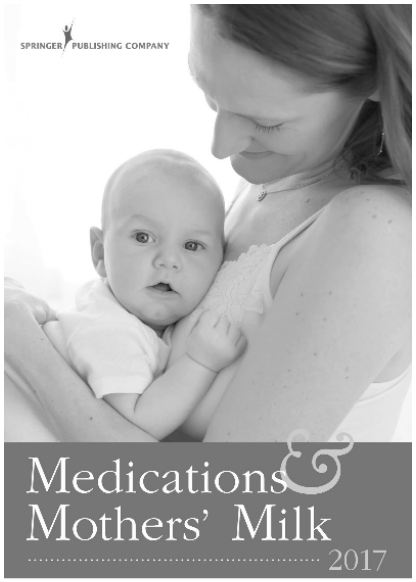
- Typical dose 1-2 mg/kg
- T1/2 2.5 hours
- Redistribution T1/2 10-15 minutes
- Oral bioavailability 20-30%



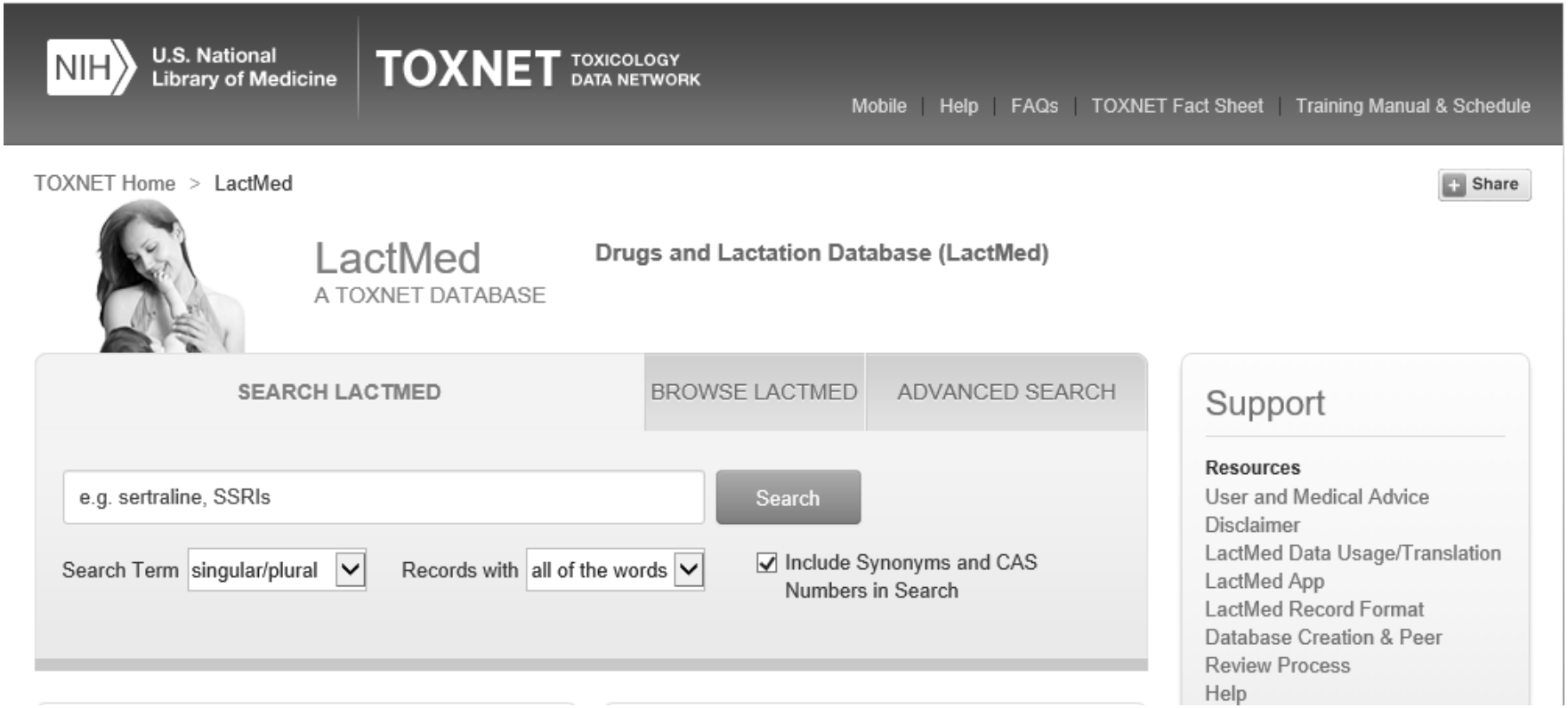
Example: ketamine

- Typical dose 1-2 mg/kg
- T1/2 2.5 hours
- Redistribution T1/2 10-15 minutes
- Oral bioavailability 20-30%

- Infant dosing 0.5-10 mg/kg



Resources


NIH
U.S. National Library of Medicine
TOXNET TOXICOLOGY DATA NETWORK
Mobile | Help | FAQs | TOXNET Fact Sheet | Training Manual & Schedule
TOXNET Home > LactMed
Share
LactMed
A TOXNET DATABASE
Drugs and Lactation Database (LactMed)
SEARCH LACTMED
BROWSE LACTMED
ADVANCED SEARCH
e.g. sertraline, SSRIs
Search
Search Term singular/plural
Records with all of the words
Include Synonyms and CAS Numbers in Search
Support
Resources
User and Medical Advice Disclaimer
LactMed Data Usage/Translation
LactMed App
LactMed Record Format
Database Creation & Peer Review Process
Help

LactMed resource

- Summary Statement
- Drug levels (maternal and infant)
- Effects in breastfed infants
- Effects on lactation and breastmilk
- Alternatives

Intraoperative Management

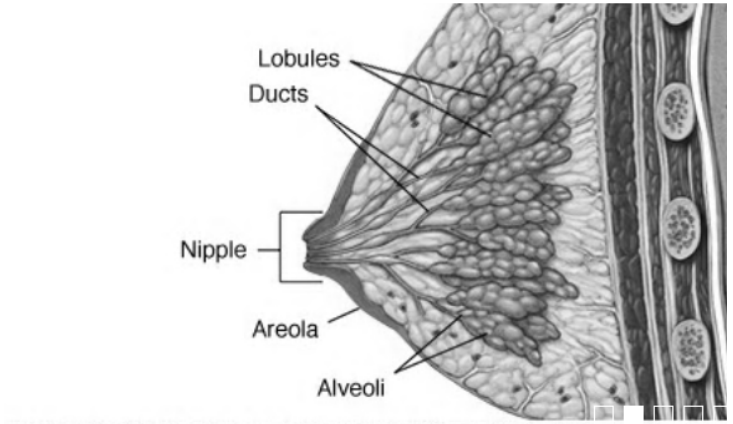
- Consider allowing patient to wear supportive clothing
- Long cases (>5-6 hours) may require intraoperative expression of breastmilk.
- Fluid management → Euvolemia
- Appropriate PONV prophylaxis and analgesia

Postoperative Instructions

- May pump or feed when awake, alert, and able.
- Multimodal pain management.
- Inpatients may need further coordination of care or lactation support.

Mastitis

- Risk factors: missed feedings, maternal stress
- Presentation
  - Fever
  - Myalgia
  - Breast pain or erythema
- Treatment
  - Expression of milk or feeding infant
  - May need antibiotics if abscess forms



Summary

- Ask about lactation
- Advocate for patient and infant
- Consider implications of medications
- Consult resources such as LactMed for infrequently used medications

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Thank you!