### **Oral Intake During Labor - Handouts**

March 23, 2016

Presenter: Amy Wehrman, CRNA

### PO intake during labor outline

#### I. Mendelson

- A. For over 60 years anesthesia guidelines for NPO status for laboring and pre-operative patients were based on the findings of Curtis Lester Mendelson. Between 1932 and 1945, he found that "The aspiration of stomach contents into the lungs during obstetric anesthesia in 66 women when 44,016 maternities (0.15%) were reviewed. General anesthesia was used in all of the documented aspiration cases.
- B. Mendelson further examined the asthma-like condition that followed the aspiration events by instilling substances into the respiratory tracts of rabbits such as hydrochloric acid and vomitus of pregnant women. This respiratory failure that resulted from aspirated gastric contents came to be known as Mendelson's syndrome.
- C. Mendelson also concluded that gastric retention of solid and liquid material was prolonged during labor.
- D. This was the cornerstone for which NPO guidelines were established.

#### II. Guidelines

- A. For over 60 years anesthesia providers have remained steadfast in their rule that parturients need to remain NPO during labor to decrease the risk of aspiration.
- B. In 2013 the ASA and ACOG reaffirmed their position that "The oral intake of modest amounts of clear liquid may be allowed for uncomplicated laboring patients" but that "solid foods should be avoided in laboring patients."
- C. In contrast, the W.H.O. recommends that "because the demands of labor are so great and because replenishment ensures maternal and fetal well –being, healthcare providers should not interfere with a woman's desire for oral intake during labor".
  - Why have we been so content with a policy that has lacked evidence to back it up? Are we that obsessed with controlling the controllable things?
- III. Changes that have led to decrease in aspiration risks.
  - A. Advances in obstetric anesthesia.

- B. Increase in regional anesthesia (only 3-5% of cesarean deliveries were general anesthetics in 2013)
- C. Greater awareness of aspiration risk by anesthesia provider.
- D. Advances in airway equipment and monitoring devices
- E. The adoption of difficult airway algorithms
- IV. Practice modifications in other countries.
  - A. In the United Kingdom, incidence of aspiration has declined in the past twenty years despite an increasingly flexible attitude toward oral intake during labor.
  - B. The Netherlands have a less restrictive approach to NPO status and have not witnessed a higher incidence complications associated with aspiration.
- V. Negative effects of restricted oral intake during labor.
  - A. Ketosis
  - B. Hyponatriemia
  - C. Maternal stress
  - Although restricting oral intake during labor has negative effects on the
    parturient, it has been shown that women who eat solid food during labor are
    twice as likely to vomit around the time of birth when compared to a water-only
    group.
- VI. Why do the practice guidelines need to change?
  - A. In 1992, Eliasson, Phillips, Stajduhar, Carome, and Cowsar observed that the metabolic demands of labor are similar to those of continuous moderate aerobic exercise.
  - B. Patient satisfaction. In 2013, Vallejo et al found that patient satisfaction is improved with high-protein drink supplementation compared with ice chips/water.
- VII. How do we implement these changes?
  - A. ASA has not published new guidelines yet.
  - B. Conservative practitioners can still implement an NPO except for sip and chips on a case by case bases.
    - 1. Pt.'s risk for c-section
    - 2. ASA class >2
    - 3. Disorders of upper GI tract
    - 4. Neurologic conditions
      - who are going to be the pioneers that are going to make these changes first?



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Completed the webinar program:

# **Oral Intake During Labor**

Presented by Amy Wehrman, CRNA on March 23, 2016.

This webinar was the equivalent of 45 minutes of continuing education.



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