

TIMELY ADMINISTRATION OF SODIUM CITRATE FOR CESAREAN DELIVERY UNDER GENERAL ANESTHESIA: A RETROSPECTIVE ANALYSIS

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Background & Methods

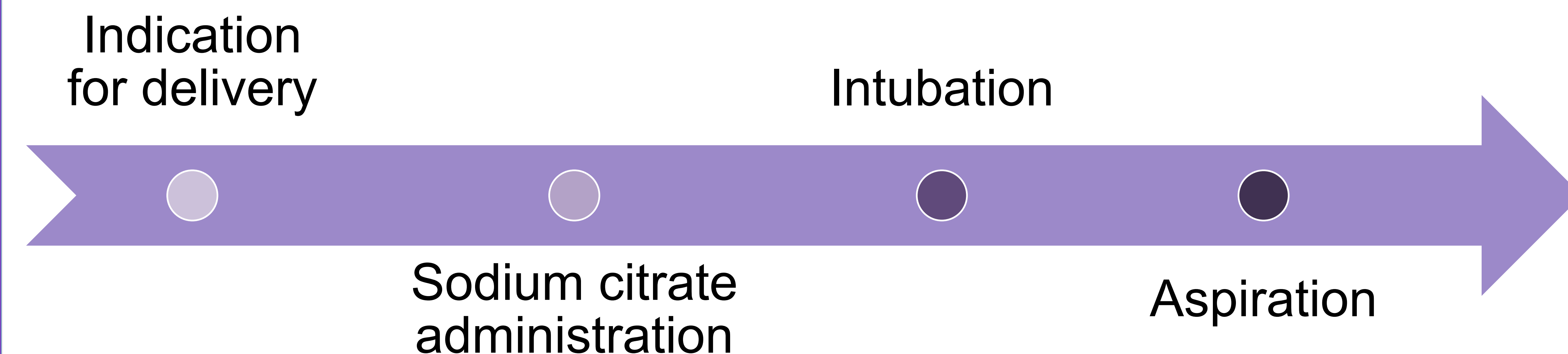
- Aspiration pneumonia was once a leading cause of anesthesia-related mortality
- ASA practice guidelines recommend timely administration of non-particulate antacids
- Retrospective analysis of all general anesthetics during 2017
- **Hypothesis:** Sodium citrate administration will be timely when general anesthesia is *planned*

Planned:

- Emergent delivery without epidural in situ
 - Abrupton
 - Cord prolapse
 - Terminal fetal deceleration
- Contraindication to neuraxial
 - Patient refusal
 - Tethered cord

Unplanned:

- Postpartum hemorrhage
- Failed conversion to from epidural analgesia to epidural anesthesia
- Surgical complication
 - Cystotomy
 - Enterotomy



Results

- 81/3,014 (2.7%) cesarean deliveries performed under general anesthesia
- 67 (83%) patients received sodium citrate
- The median time [IQR] from sodium citrate administration to intubation:
 - **Planned: 8 min [5-19]**
 - **Unplanned: 37.5 min [15-62]**
- **No aspiration events** were reported
- Sodium citrate was never re-administered if > 30 min lapsed
- **Sodium citrate timing differs based whether general anesthesia was planned ($P<0.0001$) (Fig. 1)**

Time from Sodium Citrate Administration to Intubation



Discussion

- Timing of sodium citrate administration differs based on whether general anesthesia is **planned vs unplanned**
- For unplanned general anesthetics: **clinical practice may be inconsistent with ASA guidelines**
- Timing of administration of sodium citrate should be planned around **intubation time** (not incision)
- Future studies:
 - NNT to prevent aspiration?
 - Does sodium citrate $\uparrow$ pH for longer in laboring patients due to delayed gastric emptying?



References:

