

## Aim

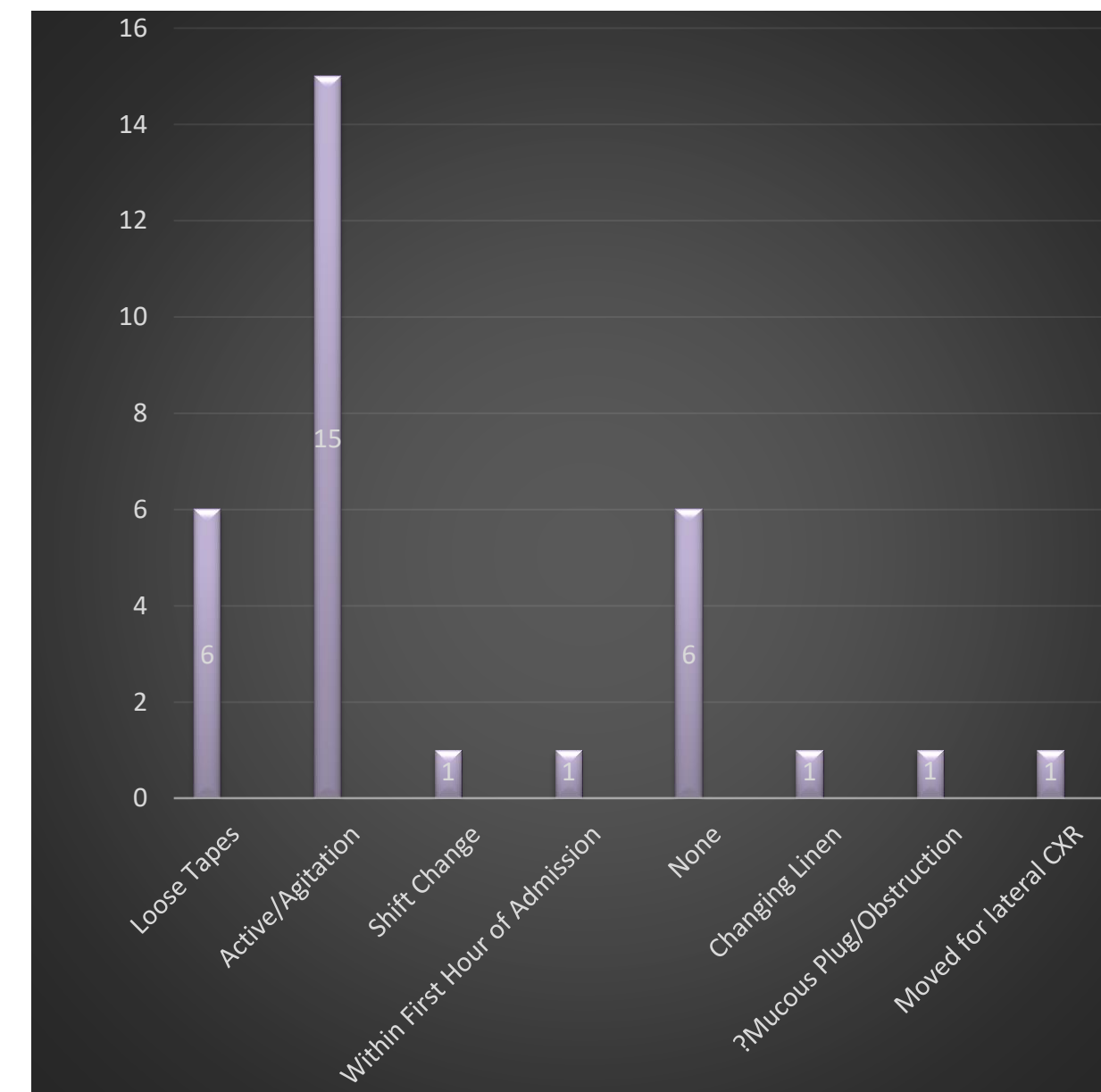
To reduce the frequency of unplanned extubation (UE) and endotracheal tube malposition in a level 3 NICU. Unplanned Extubation is defined by any dislodgement of an ETT that is not intentional.

## Importance

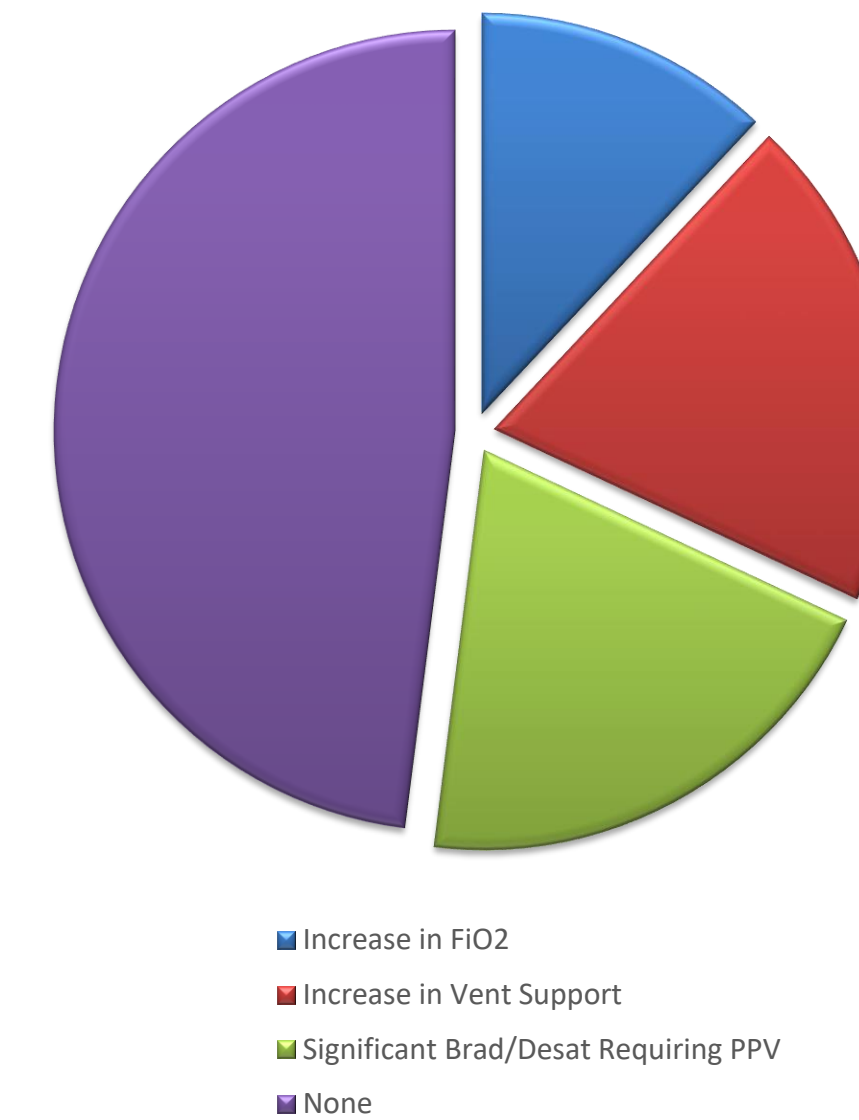
Unplanned extubations can cause both short term and long term complications. The complications include need for resuscitation, alveoli collapse, airway trauma, increased length of time on a ventilator and longer length of stay in hospital.

## Data Collection

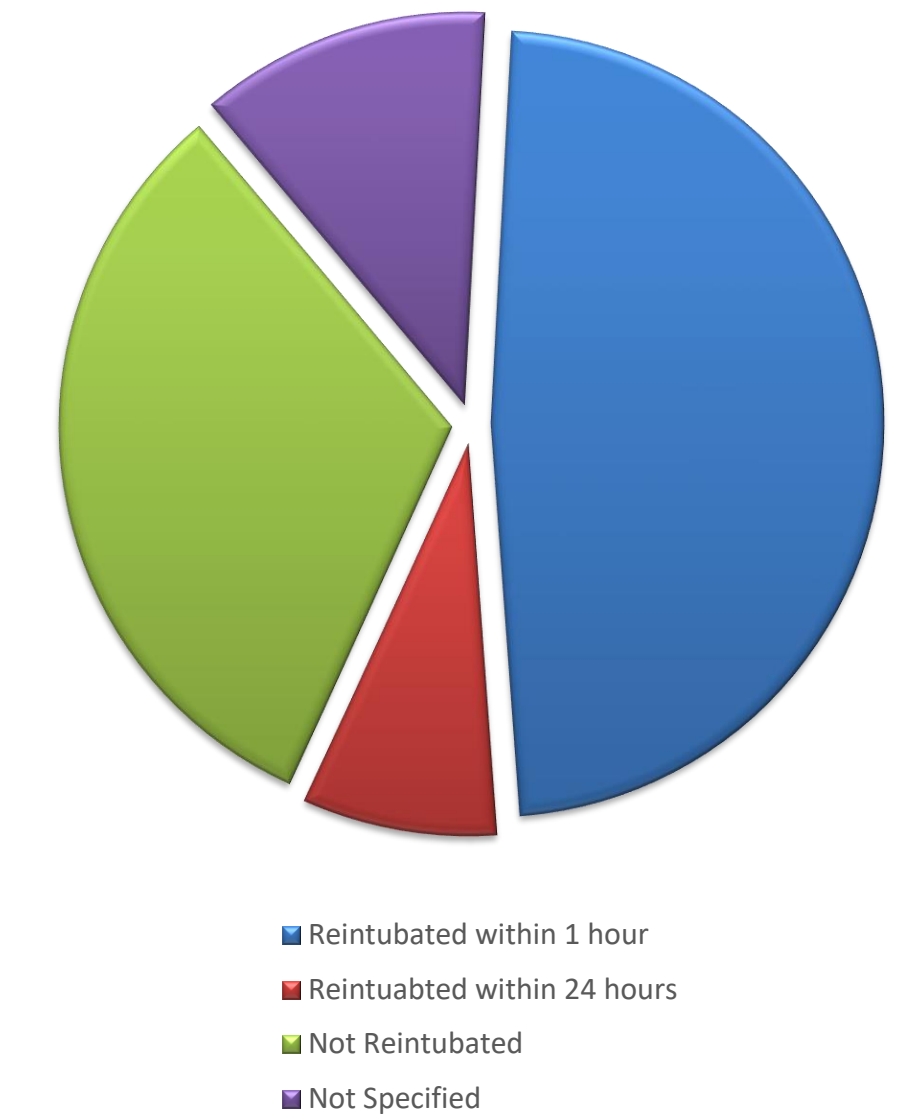
Contributing Factors



Adverse Events



Result of UE



## PDSA Cycle / Change plan

**Phase 1** Data Collection through creation of online database. All unplanned extubations entered into database starting on Jan. 11, 2022.



Database QR code posted on unit

**Phase 2** Consistency among team members for neutral tube positioning with no traction.

Agree to document "at the lip" instead of "at the gum".

Positioning for X-rays in neutral position.

**Phase 3** 19/25 UEs were secured with Elastoplast™ tape. Tried Neo-Fit™ Securement Device.



**Phase 4** Collect feedback from staff regarding use of Neo-Fit™ device. Data so far showing a decrease in UEs using device.

Drawback: not ideal for ETTs 2.5 or smaller.

**Current State** Looking for best securement option for ETTs 2.5 or smaller.

2 person care and transfers for less than 27 weeks (Tiny Baby Protocol).

Data collection continues.

## Lessons Learned and Next Steps

- Create work standard that recommends:
  - 2 person care and transfer for intubated babies
  - Consistent securement methods for ETTs
  - Increase caregiver involvement to decrease agitation
- Continue to collect data
- Trial securement device or technique for ETTs 2.5 and smaller
- Continue to promote proper flexed positioning for a calm neonate
- Mitts on hands for babies who are very active and need to be intubated