

IMPLEMENTING A PROCEDURAL SEDATION CHECKLIST AS A QUALITY IMPROVEMENT INITIATIVE

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Presentation PDF

DEFINE OPPORTUNITY

Why target procedural sedations?

- Procedural sedations are a very common event in the Emergency Department (ED)
- Despite the frequency at which procedural sedations they occur, they continue to have the potential for complications
- There is a little data describe validated checklists for procedural sedations in the ED
- The checklists that do exist are not specific to our practice in the Edmonton Zone of AHS

Why introduce a checklist?

- Checklists are becoming an integral part to many areas of medicine
- in the surgical setting, the implementation of checklists have shown to reduce the rates of death and complications [1-2]
- Medical safety checklists are beneficial for teamwork and communication, while reducing the amount of missed information [3-5]

Proposal: implementation of a short equipment checklist to support our existing procedural sedation documentation in the Emergency Department of the Royal Alexandra Hospital.

Goal: to demonstrate the utility of a checklist to strengthen communication, teamwork, and patient care during procedural sedations.

BUILD UNDERSTANDING

Phase 1: Education

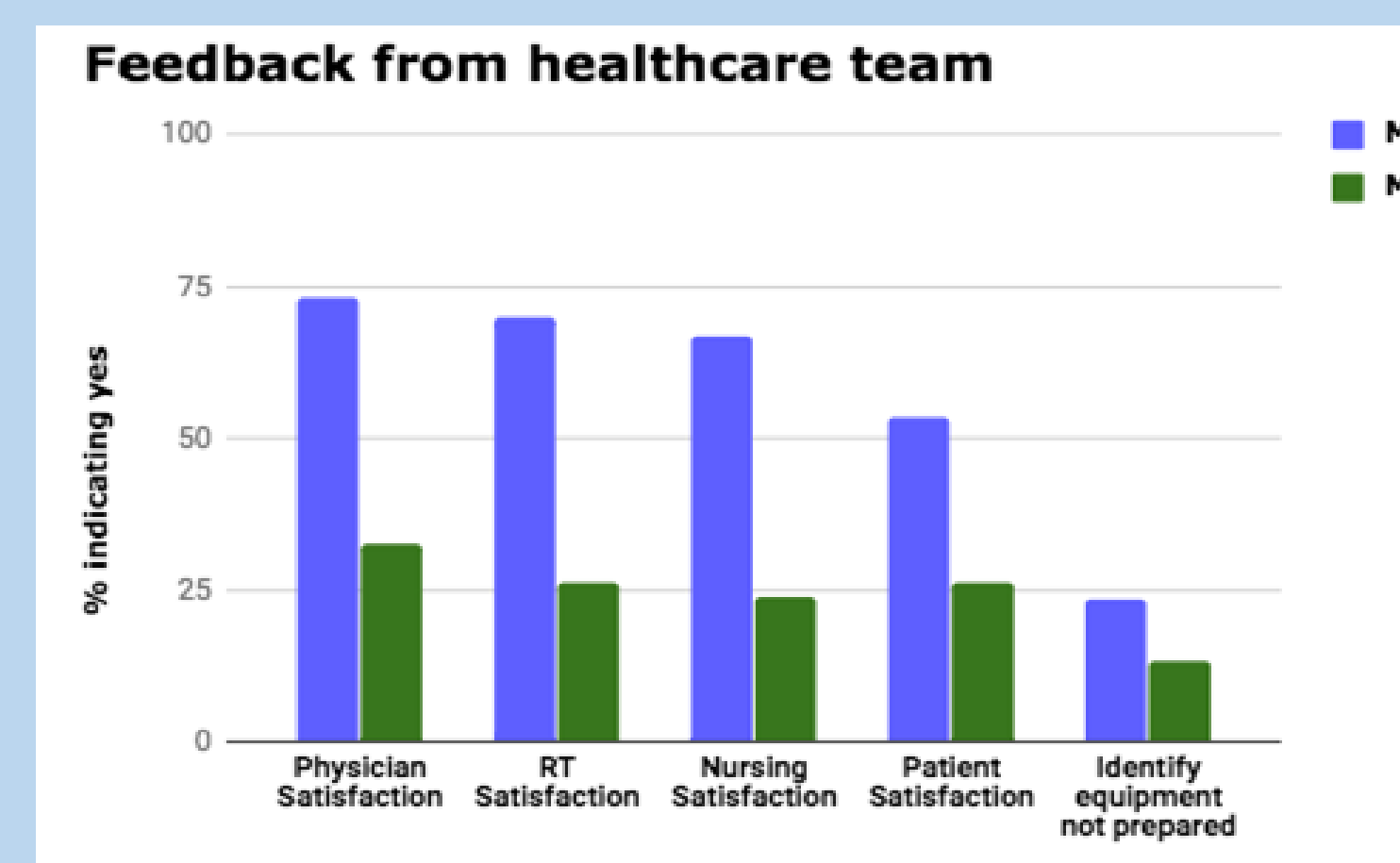
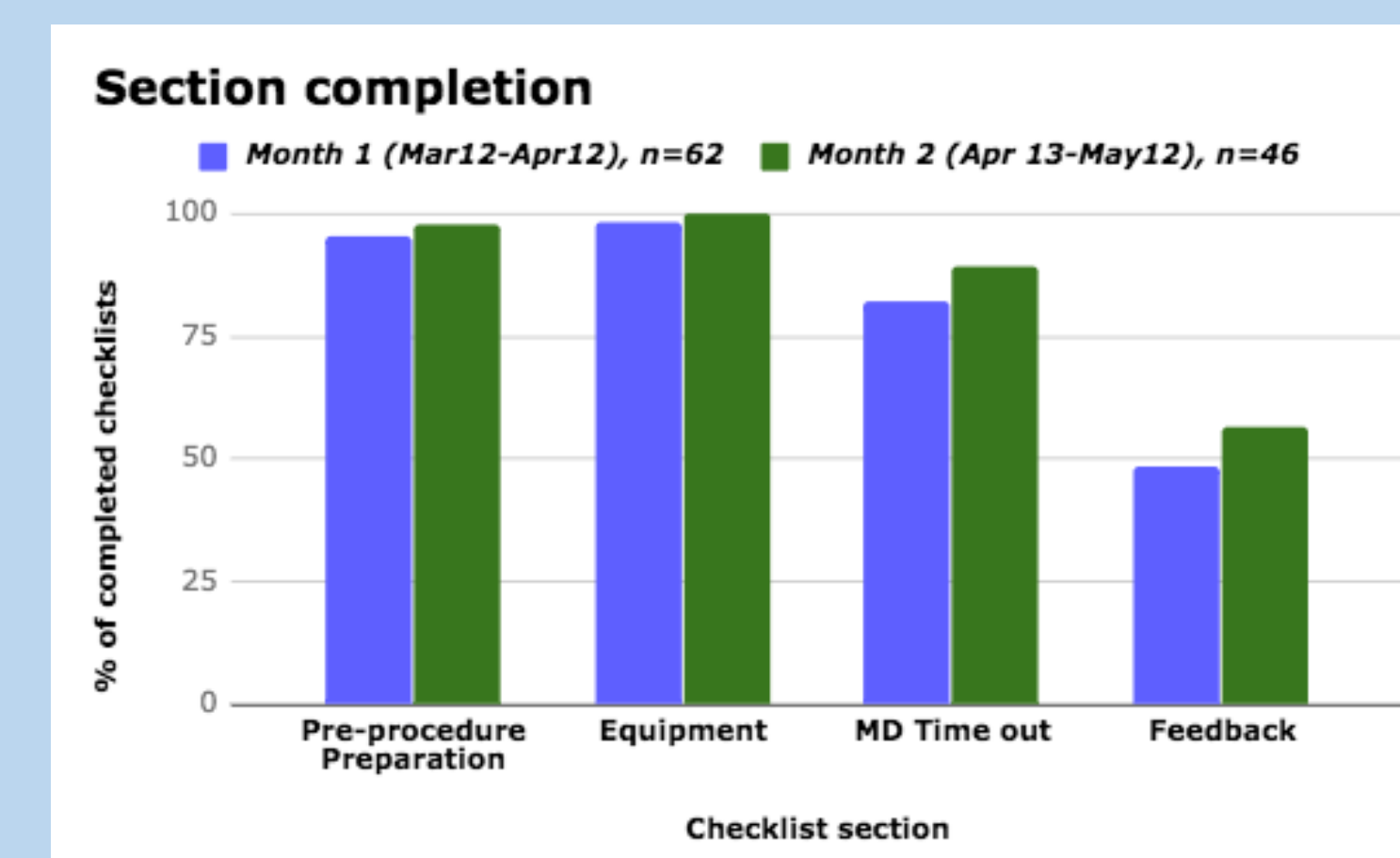
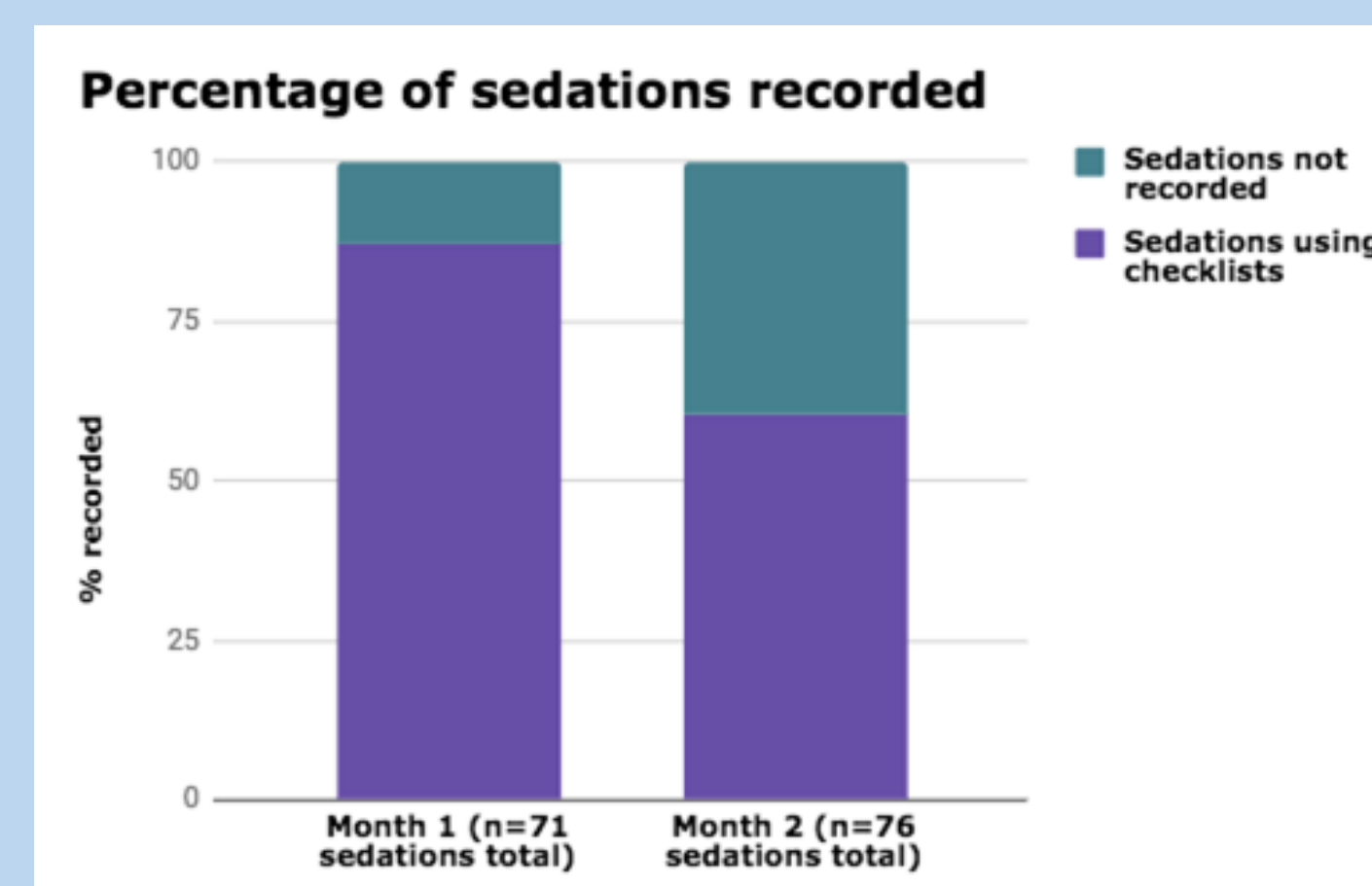
- Members of our team presented to the RAH ED Physicians Group
- FAQ documents and posters were distributed around the RAH ED prior to rollout

Phase 2: Rollout

- The rollout period was two-months in duration
- Checklist forms were kept in the Respiratory Therapy (RT) office in the RAH ED
- Staff were encouraged to use the forms for their procedural sedation
- During each sedation, the MD led the time-outs following the checklist
- Completed forms were collected in a sealed box in the RT office

MANAGE CHANGE

Analysis of Data



Qualitative Thematic Analysis of Comments

- 5 main themes (n=22 comments)
 - factual or contextual information related to sedation
 - technical issues or missing equipment identified
 - redundant form/no change in practice
 - no concerns
 - implementation

Procedural Sedation Checklist

I. Pre-procedure preparation

- | | |
|--|--|
| <input type="checkbox"/> Patient identity and procedure confirmed
<input type="checkbox"/> Informed consent obtained
<input type="checkbox"/> Patient Allergy verified
<input type="checkbox"/> Personnel present, roles assigned <ul style="list-style-type: none"> ○ airway/ventilation monitor and management ○ medication administration ○ vital signs monitoring and recording ○ procedure performer | <input type="checkbox"/> IV access established, patency checked
<input type="checkbox"/> Vital signs monitoring on, recording
<input type="checkbox"/> Other medications administered in ED reviewed with RN
<input type="checkbox"/> Sedation agent(s) selected, drawn up

Consider:
<input type="checkbox"/> EtCO2 monitoring on and recording
<input type="checkbox"/> Reversal agent(s) selected and at bedside
<input type="checkbox"/> Paralytic agent selected and at bedside |
|--|--|

II. Equipment

- | | |
|---|--|
| <input type="checkbox"/> Supplemental oxygen and nasal cannula/mask available
<input type="checkbox"/> Bag valve mask connected to oxygen ready
<input type="checkbox"/> Suction connected to Yankour ready
<input type="checkbox"/> Oral airways available and at bedside
<input type="checkbox"/> Nasal airways available | <input type="checkbox"/> Advanced airway (intubation) equipment available <ul style="list-style-type: none"> ○ Laryngoscopy handle ○ ETT and stylet ○ ETT securing device Consider:
<input type="checkbox"/> Bougie
<input type="checkbox"/> LMA with lubricant and syringe
<input type="checkbox"/> Difficult airway equipment location known |
|---|--|

III. MD Time Out

- Correct patient
- Correct procedure
- Correct side
- Allergies confirmed
- Checklist complete
- All personnel ready to proceed

IV. Feedback

- | | |
|--|--------------------------|
| Did you find the checklist helpful for any of the following? (check all that apply) <ul style="list-style-type: none"> <input type="checkbox"/> Physician satisfaction/comfort <input type="checkbox"/> RT satisfaction/comfort <input type="checkbox"/> Nursing satisfaction/comfort <input type="checkbox"/> Patient satisfaction/comfort <input type="checkbox"/> Identifying any equipment not prepared | Any additional comments? |
|--|--------------------------|

Thank-you for your support of this resident quality improvement project!
This checklist does not represent standard of care.

- A one-page procedural sedation checklist
- Development based on a literature review and consultation with relevant health professionals (respiratory therapists [RTs], emergency medicine physicians)
- Completed by RTs during each procedural sedation

ACT TO IMPROVE

Checklist use

- “Checklist fatigue”
 - Completion rates dropped by 26% from the first to the second month of the pilot project
 - Email sent out to MDs, RTs, RNs at half-way mark to give thanks and encourage continued participation
- Uptake better among RTs than MDs
 - RTs carried responsibility to bring and complete most of checklist
 - MDs engagement via email, presenting at physician group meeting; vs RT engagement by head RT disseminating information and education materials.

Errors identified by checklist

- 10% drop in missing equipment captured from first to second month
 - checklist fatigue vs improved practice?

Key learning points from project

- The checklist was effective at identifying missing equipment prior to starting a procedural sedation
- A multi-pronged education campaign can facilitate roll-out of a project involving several health professions disciplines
- “Checklist fatigue” exists!
 - Sustaining an education campaign throughout may help with engagement
- Checklist modification in real time allowed us to respond to feedback and concerns (a benefit of QI)

Implications of our findings

- importance of a checklist in atypical sedation environments
- useful for EDs with less frequent sedations

Dissemination of results

- presentation at EM research day to ED staff, residents and nurses

SUSTAIN RESULTS

SHARE LEARNING