

THINKING OUTSIDE THE BOX: IDENTIFYING THE DETERIORATING PATIENT IN THE ENDOSCOPY UNIT

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NURSE ENDOSCOPIST-WHAT ARE WE THINKING ABOUT?

- Credentialing
- Training
- Prescribing
- Completing procedures
- Histology Results
- Recognition of skills
- Governance structure
- Appropriate patient
- Insurance
- CME funding
- Managing negative attitudes from colleagues (doctors AND nurses)
- Managing unrealistic expectations from the public, senior management and ourselves.
- How do I fit everything in?
- What if I cause a major patient complication?
- What if they want me to do scopes day in and day out?
- How do I manage fatigue?
- How do I manage patient sedation?
- How do I know what is the correct amount of sedation?
- How do I identify and manage sedation that is too deep?
- What do I do if the patient needs more sedation than I am willing to give?
- How do we get credentialing/recognition for sedation practice?

TRUE INDEPENDENT PRACTITIONER

- Compared to our over seas colleague New Zealand Nurse Endoscopists have an extra complexity of providing patient sedation in order to become an independent nurse endoscopist.
- This includes:
 - Prescribing
 - Determining correct amount of sedation for each individual (considering age, sex, BMI, drug history, allergies, polypharma, etc)
 - Monitoring the patients sedation level during the endoscopy and recognising over sedation
 - Managing over sedation through patient self rescue, active rescue and active resuscitation.
- Moves are being made nationally on the formalities of sedation prescribing training and credentialing.
- This leaves the issue of monitoring sedation levels and facing the issue of over sedation and the patient that is at significant risk of having permanent injury or death from unrecognised deterioration in oxygenation and airway patency.

EARLY WARNING SCORE (EWS) FOR PATIENT ASSESSMENT

- EWS is a project to have a National Vital Signs Chart with an standard escalation pathway when patient condition deviates. It has been developed by the Health Quality and Safety Commission (HQSC) under the Patient Deterioration workflow in response to actual patient harm incidents that could have been prevented if the alarm had been raised or responded to earlier.
- EWS is facilitated by nurses who are the core of patient care and should be the gatekeepers for escalation when deterioration is recognised. EWS can quantify the “feeling that the patient is not right.”
- Nurse endoscopists in an endoscopy room with endoscopy nurses without immediate medical over view and a patient having sedation have a need for robust patient monitoring and recognition of unexpected patient deterioration.
- So is EWS the answer to the assessment question?

MODERATE SEDATION OR CONSCIOUS SEDATION

The goal of sedation in endoscopy is moderate or conscious sedation. Having inadequate or deeper than intended sedation presents risks to the patient. Nurse endoscopists need to upskill in safe sedation practice, assessment of patients actual sedation level, recognition and management of over sedation

	Minimal Sedation (Anxiolysis)	Moderate Sedation (Conscious sedation)	Deep Sedation	General Anaesthesia
Responsiveness	Normal response to verbal stimulation	Purposeful response to tactile or verbal stimulation	Purposeful response to painful stimuli	Unrouseable
Airway	Unaffected	No intervention needed	Intervention may be needed	Intervention often required
Spontaneous Ventilation	Unaffected	Adequate but not normal rate	Maybe inadequate	Frequently inadequate
Cardiovascular function	Unaffected	Usually maintained but not at baseline	Frequently inadequate	May be impaired

SOLUTION?

- Safe Sedation Training™
- Online moderate sedation training course from University of Utah, USA.
- Nine modules covering assessment, pharmacology and rescue/resuscitation information
- www.safesedationtraining.com
- Promotes the RAVOC™ assessment tool to determine patients level of sedation.

RAVOC™ ASSESSMENT TOOL

R – Responsiveness	Is the patient sleepy and relaxed but responsive to shake and shout?	Clinical assessment by airway nurse or endoscopist
A – Airway	Is the patients airway adequate and are they moving air?	Clinical assessment of breath sounds and chest movement.
V – Ventilation	Is the patients ventilation adequate to draw air/oxygen in to the lungs and expel CO ₂ ?	Clinical assessment of presence or absence of breathing. What is the respiratory rate per minute.
O – Oxygenation	Is the patients oxygenation adequate?	Mechanical assessment of SpO ₂ and what support is needed to maintain SPO ₂ .
C – Circulation	Is the patients circulation adequate?	Mechanical assessment of pulse and blood pressure

58 YEAR OLD MALE HAVING SURVEILLANCE COLONOSCOPY FOR FH CRC. HAS HAD 3MG MIDAZOLAM AND 50MCG FENTANYL. OBSERVATIONS BEING TAKEN EVERY 5 MINUTES, 10 MINUTES SINCE MEDICATIONS GIVEN. BASELINE OBS LOC=0, RR=18, SPO2=99% RA, P=72, BP=125/82.

Observation information	EWS	RAVOC
Responsiveness – patient sleeping but opens eyes and answers questions when spoken to in a loud voice.	<p style="text-align: center;">LOC 2</p> <p style="text-align: center;">Frequently drowsy, easy to rouse but difficulty staying awake.</p>	<p style="text-align: center;">LOC 2</p> <p style="text-align: center;">Frequently drowsy, easy to rouse but difficulty staying awake.</p>
Airway – patient has breath sounds, chest noted as moving. SPO2 monitor shows 98% on 2L O2 via nasal cannula	Intact airway	Intact airway
Ventilation – respiratory rate when asleep 8 BPM. Increases to 18 when awake	RR 8 BPM	Spontaneous ventilation, RR 8 BPM
Circulation – pulse 58 BPM, blood pressure 102/68 mmHg	Cardiovascular function is trending down	Cardiovascular function is intact
Conclusion	Patient is in a deteriorating state and medical assistance should be obtained	Patient meets criteria for moderate sedation and is in a satisfactory condition, continue monitoring

IMPORTANT POINTS

- RAVOC™ assessment should be done frequently during and after the procedure until the patient is sufficiently recovered from the sedation drugs and meets discharge criteria for day procedure patients.
- If the patient shows signs of unexpected re-sedation or slow return to pre-procedure state in recovery then EWS criteria should be applied and a call for assistance using the facility EWS flowchart should occur.
- Throughout the entire episode of care don't forget PAIN observation and recording!
- If the findings are not recorded in the patients care pathway then the assessment didn't happen!
- SST™ emphasises rescue is better than resuscitate and patient self rescue in the case of over sedation is best. SO...
- Don't go heavy on the sedation drugs, be vigilant for changes in depth of sedation, be trained in the use of reversal agents for patient rescue AND don't hesitate to call a medical emergency/code blue if a resuscitation is needed.

REFERENCES

- Southern DHB (2019) Resource Information for New Zealand Early Warning Score Chart Training. MIDAS 101476
- Safe Sedation Training (2019) www.safesedationtraining.com