

Utilising the Critical Care Outreach Team to support outcomes for the emergency laparotomy patients

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Content



- NELA
- Dr.E.A.M.S
- Data Dec 2019-Dec 2020
- Main interventions
- Emergency call rates
- Length of stay
- Moving forward

NELA: background



- Structure, process and outcome measures
- NELA predicted mortality score >5% - enhanced care
- DTOC, challenging times, critical care capacity issues
- How do we support those patients not admitted?

Royal College of Surgeons, (2011)



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- **D**rinking
- **E**ating
- **A**nalgesia
- **M**obilising
- **S**leeping



Oliver et al, (2022)



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- 72 hour follow up
 - Day 7 follow up
- Early detection & prevention of deterioration - **High risk group**
- Support patient, ward staff & surgical team & ITU
- Improve communication between MDT



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- Utilise critical care nursing skills
- Provide education
- Data collection & audit
- Safety net



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Addressograph

Perioperative Medical Review
Emergency Laparotomy

Day 7 F/U date:

NELA PREOPERATIVE PREDICTED MORTALITY SCORE: %

Consultant surgeon: Date & Time of surgery: Ref by: ITU/TOMS/Ward

Background:

Day 1 Post Op Date: Ward:

Drinking	Eating	Analgesed	Mobilising	Sleeping	NEWS:	RR:	SpO2:	FI02:	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BP:	HR:	Temp:		
RESP O2 requirement \updownarrow O/E:									
CVS Arrhythmia <input type="checkbox"/> <input type="checkbox"/> CRT sec IV access: CVC PICC Cannula									
Clotting normal? <input type="checkbox"/> <input type="checkbox"/> Calves: Oedema? <input type="checkbox"/> <input type="checkbox"/>									
VTE prophylaxis: od/bd TEDs									
NEURO GCS .../15 Delirium suspected? <input type="checkbox"/> <input type="checkbox"/> Sleep issues:									
PAIN Able to deep breathe/cough/mobilise? <input type="checkbox"/> <input type="checkbox"/>									
Pain score Analgesia: Spinal Epidural Rectus sheath PCA Oral									
GI Abdomen soft: <input type="checkbox"/> <input type="checkbox"/>		NG output mls Drain output R L mls		Bowel sounds: <input type="checkbox"/> <input type="checkbox"/> Flatus: <input type="checkbox"/> <input type="checkbox"/>		Bowel action: <input type="checkbox"/> <input type="checkbox"/> Stoma: Vol Type.....		Nutrition: NBM Sips Free fluid E&D TPN	
		Days without nutrition		RENAL UO satisfactory <input type="checkbox"/> <input type="checkbox"/> m/hr Balance:		Fluid balance: hypo / euvo / hypervolaemic Does patient need IV fluids? <input type="checkbox"/> <input type="checkbox"/>		COTE referral? <input type="checkbox"/> <input type="checkbox"/>	
Antibiotics: WCC CRP HB Pit Urea Cr K Na		DREAMS DAY 1 OUTCOME: <input type="checkbox"/> Review required tomorrow <input type="checkbox"/> Refer critical care <input type="checkbox"/> Discharge from DREAMS team		Main Issues/recommendations:		Day 7 F/U Date & Time		Off o2? Analgesia? Abx? Eating? Drinking? Mobilising? Sleeping/Delirium?	
						NEWS:		Outcome:	

Day 2 Post Op: Date: Time: NEWS: RR: SpO2: FI02: BP: HR: Temp:

Drinking Eating Analgesed Mobilising Sleeping

RESP O2 requirement \updownarrow O/E:

CVS Arrhythmia CRT sec IV access: CVC PICC Cannula

Clotting normal? Calves: Oedema?

VTE prophylaxis: od/bd TEDs

NEURO GCS .../15 Delirium suspected? Sleep issues:

PAIN Able to deep breathe/cough/mobilise?

Pain score Analgesia: Spinal Epidural Rectus sheath PCA Oral

GI Abdomen soft:

NG output mls Drain output R L mls

Bowel sounds: Flatus:

Bowel action: Stoma: Vol Type.....

Days without nutrition: Nutrition: NBM Sips Free fluid E&D TPN

RENAL UO satisfactory: m/hr Balance: hypo / euvo / hypervolaemic Does patient need IV fluids?

Main Issues/recommendation: WCC Ur CRP Cr Hb K Pit Na

DREAMS DAY 2 OUTCOME: Review required tomorrow Refer critical care Discharge from DREAMS team

Day 3 Post op: Date: Time: NEWS: RR: SpO2: FI02: BP: HR: Temp:

Drinking Eating Analgesed Mobilising Sleeping

RESP O2 requirement \updownarrow O/E:

CVS Arrhythmia CRT sec IV access: CVC PICC Cannula

Clotting normal? Calves: Oedema?

VTE prophylaxis: od/bd TEDs

NEURO GCS .../15 Delirium suspected? Sleep issues:

PAIN Able to deep breathe/cough/mobilise?

Pain score Analgesia: Spinal Epidural Rectus sheath PCA Oral

GI Abdomen soft:

NG output mls Drain output R L mls

Bowel sounds: Flatus:

Bowel action: Stoma: Vol Type.....

Days without nutrition: Nutrition: NBM Sips Free fluid E&D TPN

RENAL UO satisfactory: m/hr Balance: hypo / euvo / hypervolaemic Does patient need IV fluids?

Main Issues/recommendation: WCC Ur CRP Cr Hb K Pit Na

DREAMS DAY 3 OUTCOME: Review required tomorrow Refer critical care Discharge from DREAMS team

Data: Dec 2019 – Dec 2020



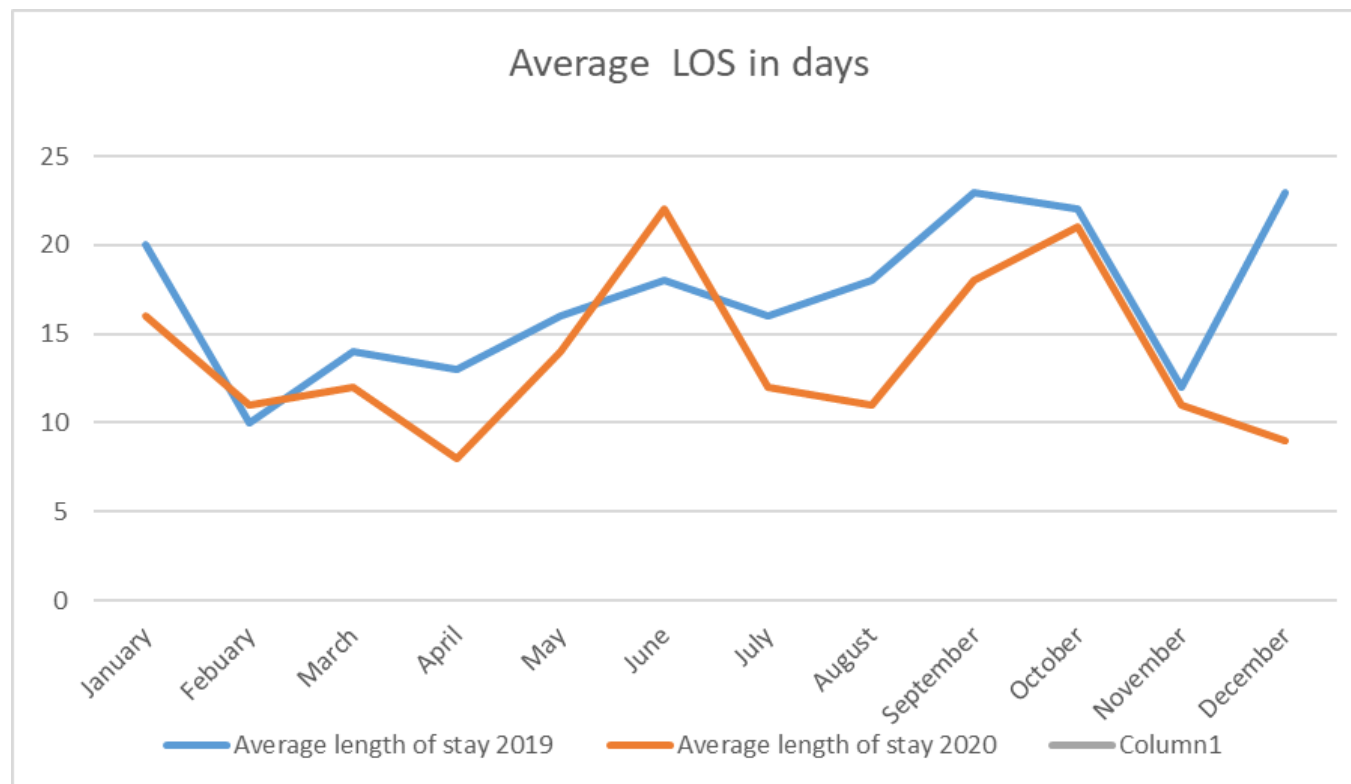
Number of patients reviewed	94
Total visits	384
Remained on ward	92
Admitted to HDU	2

Cardiac arrest rates



Dec 2018 – Dec 2019 (Pre- DrEAMS)	Dec 2019 – Dec 2020 (Post DrEAMS)
6	0

Length of stay (LOS)



- Overall reduction of 270 days in 2020
- Cost of surgical bed - £497 per night
- Cost of HDU bed - £1,155 per night

Average LOS - 2018 -2019: 16.8 days

Average LOS - 2019 -2020: 13.8 days



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Common interventions

- IV access
- Fluid bolus/increase rate IVI
- Highlighting days without nutrition
- Bloods
- Refeeding monitoring
- O2 delivery/humidification/nebulisers
- Venous Thromboembolism
- Insertion NGT/Ryles
- CVC care and maintenance
- Escalation for medical review



Qualitative feedback

- Support
- Information
- Communicate concerns
- Positioning & comfort
- Initiating appropriate escalation of care planning



Lessons learnt



- Early pre-emptive intervention improves outcomes
- Reduced risk of potential adverse complications
- MDT approach is key
- Education-fluid balance
- Data collection and audit- further development of skills
- Importance of improving patient experience

Moving Forwards



- Applying framework to other high risk patient groups
- Involvement on admission/ED/Frailty scoring
- Focus education & training perioperative care
- Collection and collation of audit & data- service growth

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Any questions?



References



- Oliver, C.M., Warnakulasuriya, S. & McGukin, D., (2022). Delivery of drinking, eating and mobilising (DrEaMing) and its association with length of hospital stay after major noncardiac surgery: observational cohort study. *British Journal of Anaesthesia*. 129 (1). Pp 114-126. Available at: <https://doi.org/10.1016/j.bja.2022.03.021> [Accessed 2nd October 2022].
- The Royal College of Surgeons of England / Department of Health, (2011). The Higher Risk General Surgical Patient: Towards improved care for a forgotten group — Royal College of Surgeons. [online] Royal College of Surgeons. Available at: <<https://www.rcseng.ac.uk/library-and-publications/rcs-publications/docs/the-higher-risk-general-surgical-patient/>> [Accessed 2nd October 2022].