Resilience in acute health care: implementation of an ICU intervention

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An ICU Escalation Protocol – the problem

“…we’re full to capacity …[but] there was no written guideline on who to notify, what order it should be in and what to do …” (Manager 4)

“…we’re running on amber quite often with having to cancel one [surgical] case a day nearly in busy periods.” (Doctor 1)

“…the nurses would go to the bed management meeting and the doctors would not know what they’d asked for, how many beds they had, how many nursing staff were available or how many people we could admit. …” (Doctor 2)
An ICU Escalation Protocol

Red
- ICU at physical capacity (14 beds)
- Elective surgery cancelled
- Delayed/Denied ICU admission

Amber
- ICU expecting to be at >13 patients/24hrs

Green
- ICU can accept 2 unplanned admissions/24hrs PLUS
- Elective surgery patients

ICU Plan
An ICU Escalation Protocol – Phase 1 recap

- **Phase 1**: 12 pre/early implementation semi-structured interviews, to collect staff perceptions of ICU workplace and conduct process mapping (FRAM)

- **Participants**:
  - 4 x doctors (ICU and surgery)
  - 4 x nurses/allied health (ICU)
  - 4 x managers (ICU and hospital)

- **Interviews**:
  - completed 2 months after ICU plan rolled out
  - digitally recorded/professionally transcribed
  - interview length avg 26 minutes (range 11-50 minutes)
  - inductive interpretive analysis of transcribed data
  - derived themes mapped to Ten Cs Model
Perceptions of the ICU Plan

A proxy for many things …

“It’s a policy that’s been written but it’s more than just a policy …”
(Doctor 1)

- A behaviour contract
- Provides consistency, predictability & transparency
- Reduces horizontal violence
- Gesture of goodwill
- An authority to say ‘NO’
- Not a fix, but provides visibility of the problem
- A more structured way of operating
- Improving patient flow
- A record/trend of ICU performance and capacity
- A canary in the coalmine to identify system pressure
What’s in a meeting?
PRE-ICU PLAN

7:00am
7:30am
8:00am
8:45am
9:00am

NURSE MANAGER ARRIVES

SURGERY STARTS

HOSPITAL BED MEETING

CONSULTANTS ARRIVE
Before 8:00 am meeting
ICU PLAN

- Nurse Manager arrives
- Surgery starts
- Hospital bed meeting
- Consultants arrive
- ICU plan meeting
ICU PLAN

7:00am
NURSE MANAGER ARRIVES

7:30am
SURGERY STARTS

8:00am
HOSPITAL BED MEETING

8:45am
CONSULTANTS ARRIVE

9:00am
ICU PLAN MEETING

ICU PLAN
Ten Cs

- Communication
- Cohesion
- Competence
- Constraints
- Capture
- Culture
- Clear Ownership
- Cognition
- Compliance
- Challenge

After 8:00 am meeting
An ICU Escalation Protocol – Phase 2

- **Phase 2:** 19 post implementation semi-structured interviews (to collect staff perceptions of ICU workplace), ICU administrative data

- **Participants:**
  - 8 x doctors (ICU, ED, and surgery)
  - 5 x nurses/allied health professionals (ICU)
  - 6 x managers (ICU, ED, and hospital)

- **Interviews:**
  - completed 7 months after ICU plan rolled out
  - digitally recorded/professionally transcribed
  - interview length avg 20 minutes (range 5-52 minutes)
  - inductive interpretive analysis of transcribed data
The new way of working was no longer seen as an intervention – it was just accepted as ‘how work is done around here’
ICU Escalation Plan

Those who like the plan thought it:

- made it easier to say ‘no’
- facilitated good discussions
- made clear reference points instead of relative bed numbers
- made communication with ‘higher ups’ easier
- made decision making easier during shifts

Those who didn’t feel that it resolved the issues, agreed that it clarified

The ICU position, but felt it didn’t change the behaviour of others.

“I think the plan is good in itself if the other people on the end of the line listen to it.” (Nurse 3)
ICU Escalation plan

“I think by reducing the ad hoc nature of the decisions that makes it clearer. I think any - you know the old ‘good fences make good neighbours’. I think [having the plan] helps from that perspective. I think it probably has improved our workflow.” (Doctor 2)

“I think we all hoped it would end the random mayhem of cancellation when we got busy. I think it's done that.” (Doctor 2)
ICU Escalation plan

“I think the actual putting something in place that people can own has helped with the relationship in the team, that's great. … So having something they could all own and that people recognise this is how we manage and that the other services understand that, that helps. …, I'd say [the ICU] were a cohesive, well functioning team. Yes there's pressure but they manage it well.” (Manager 1)
“The traffic light system it does work and it's great to be able to show a surgeon what we mean. We're at red, there is no room to move. We're amber, if you move your patients, yes we can do the surgery. But red is like there is no one that is possibly going to go out. We can't even move anyone in.” (Manager 3)

“I think it does make a practical difference because [the ICU status is] at the back of your head for the rest of the day.” (Doctor 4)
What’s in a meeting now?
The 8:00am meeting

Meetings seen as functioning to:

• Disseminate knowledge
• Facilitate efficiency of communication
• If run well, help preserve time
• Assist with planning ahead
• Facilitate team building
The 8:00am meeting

“So there's more of a team approach. I think communication's a lot better. Everyone seems to be on the same page more” (Nurse/Allied Health 4)

“I think bringing the whole team together and everyone hearing the same thing, and knowing what elective surgery are and knowing what our bed capacity is - I think is a very useful thing. I think it's been good to incorporate nursing and allied health into that, as well. Just so everyone is on the same page, and in terms of a team building exercise.” (Doctor 1)
The 8:00am meeting

“I think it has helped tighten up the way registrars learn to hand over and present patients and synthesise information, and it’s a good opportunity for us, as consultants, to assess their ability to do that.” (Doctor 1)
The 8:00am meeting

“Mainly because everyone's involved, everyone knows what's happening. I think by doing that everyone's more confident with each other. That comes down then if things happen in the unit you can rely on people and you know who they are and you know what their skills and qualities and that are too. So it's very good like that.” (Nurse/Allied health 5)
Ten Cs

- Communication
- Cohesion
- Competence
- Constraints
- Capture
- Culture
- Clear Ownership
- Cognition
- Compliance
- Challenge

Phase 2
Thank you

END