

Evidence Snapshot

Developing best practice for the escalation of care (Part B)

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Introduction

The Centre for Clinical Effectiveness received a request to review the evidence around the failure of escalation of care in hospitals. The summary of evidence around escalation of care consists of two parts. Part A is a rapid review of literature that identifies the barriers that clinicians (nurses and doctors) perceive when escalating care. Part B is an evidence snapshot of the current practices, recommendations and models in the escalation of care to inform the development of best practice. This report summarises the evidence from Part B.

Question

Why clinicians (nursing and doctors) fail to raise concerns (escalate care or take action) with appropriate senior personnel?

Part B: What is best practice in the escalation of care?

Search methods

Google search terms: "superb safety model" AND escalation of care

Summary of findings

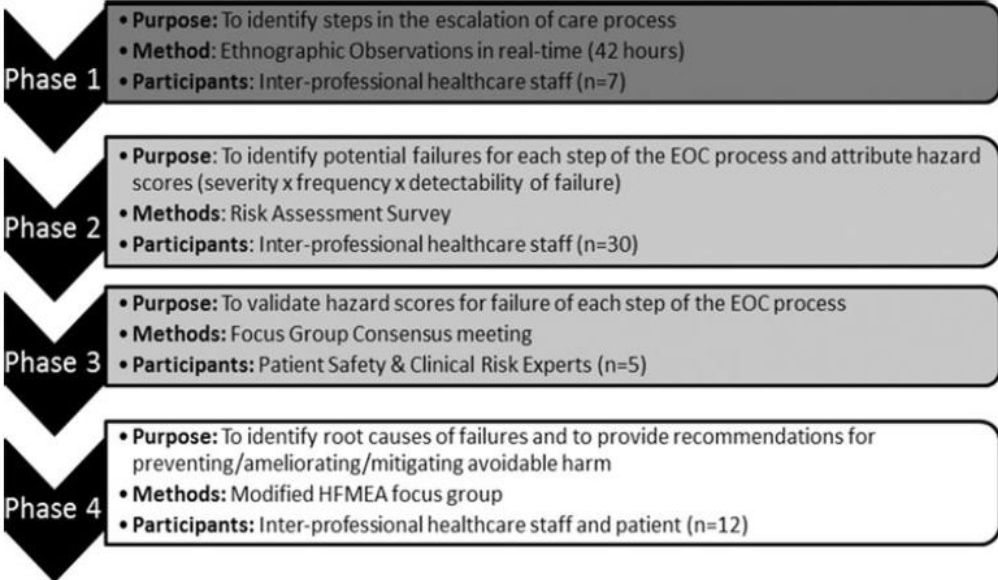
The table below presents recommendations described in the literature that were identified in the Part A as well as literature that was identified in the search methods described above. It presents an evidence snapshot of the current practices, recommendations and models to inform the development of best practice in the escalation of care.

Some of the tools/models for practice included:

- Healthcare-Failure-Mode-Effects-Analysis (Johnston et al. 2015a)
- Early Warning Scores (Johnston et al. 2015b)
- SBAR tools (Johnston et al. 2015b)
- SUPERB/SAFETY model (Farnan et al. 2010)

Only some of the reported recommendations and models for practice in Table 1 have been evaluated for their effectiveness and this outcome is described.

Table 1. Evidence for recommendations, models and tools in practice

Recommendations for practice/ Models and tools in practice	Outcomes reported	References
<p>Healthcare-Failure-Mode-Effects-Analysis (HFMEA)</p> <p>The methodology allows hazardous process failure to be prospectively identified in processes of escalation of care and solutions to be recommended.</p>  <p>Recommendations to improve the junior doctor steps of the EOC process were:</p> <ul style="list-style-type: none"> • Recruitment of more permanent nursing and medical staff to decrease reliance on agency staff • Development and implementation of an electronic medical records system • Encourage senior surgeons to be more proactive (meaning that the responsibility for initiating contact would not be the sole responsibility of juniors and nurses) • Educate junior doctors about the importance of prompt escalation of care • Develop a software platform with integrated demographics, pathology, radiology, and vital signs to allow prompt escalation in the presence of patient deterioration. <p>Main recommendations to improve the senior doctor steps of the EOC process were:</p> <ul style="list-style-type: none"> • Development of a clear escalation protocol • Production of a clinical guideline defining appropriate levels of care according to patient 	<p>Not reported</p>	<p>Johnston et al. (2015a)</p>

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<p>diagnosis, physiological parameters, and predictive scoring systems</p> <ul style="list-style-type: none"> Improvement of resource and staffing management to ensure sufficient access to the OR and surgical ICU beds for unstable patients. 		
<p>Intervention studies in the review utilised new charts to record vital signs, escalation protocols, and communication tools aiming to improve escalation of care and patient outcomes. All interventions targeted doctors or nurses at the recognition or communication phase of the escalation of care process.</p> <p>Interventions include:</p> <ul style="list-style-type: none"> Introduction of new vital signs chart Track and trigger systems, simulation-based education, and a nurse-led RRT coupled with ward education and new charts <p>TOOLS</p> <p>EWS: Early Warning Scores</p> <p>SBAR tools: SBAR is a method of structuring handover. It stands for Situation, Background, Assessment, Recommendation.</p>	<p>Significant improvements in the recording and documentation.</p> <p>Conflicting results in ICU admission cardiac arrest and mortality rates pre and post intervention.</p> <p>Decrease in number of missed Medical Emergency Team (MET)/Rapid Response Team (RRT) calls.</p>	<p>Johnston et al. (2015b)</p>
<p>Enablers (to overcome barriers in EOC) identified through survey of medical trainees:</p> <ul style="list-style-type: none"> Optimise available workforce Continue to have 'rules'/policies and guidelines that support optimal escalation Optimise training about what to escalate and consequences of non-escalation Optimise senior staff support for and response to escalation Optimise culture re escalation Optimise systems for identifying accountable senior staff Optimise team planning for acute deterioration and end-of-life scenarios Optimise paging, IT and telecommunications systems 		<p>Kelly et al. (2014)</p>
<p>Enablers to overcome barriers for EOC</p> <p>Social</p> <ul style="list-style-type: none"> <i>Nurse empowerment</i> – having a powerful, equal and welcomed voice in huddles and within the patient care team. This voice supported their reporting of patient-related observations, questioning of proposed plans and suggesting of alternate plans. There was also the expectation that any provider can go up the chain of command and escalate a 		<p>Brady et al. (2014)</p>

Recommendations for practice/ Models and tools in practice	Outcomes reported	References
<p>situation if they felt their voice was not being heard or if they disagreed with the plan.</p> <ul style="list-style-type: none"> • <i>A culture that supports teamwork, accountability and safety</i> – a unit culture that supports teamwork, accountability and safety would support trusting relationships, encourage communicating with all team members (including the ICU team) and encourage a willingness to ask for second opinions. Also this culture would require all providers to be accountable for their role in carrying out mitigation plans and escalating patient care if necessary. <p>Technological</p> <ul style="list-style-type: none"> • <i>Standardised data elements/scores</i> – relate to the benefit of objective algorithms, such as the PEWS, and other standardised tools for conducting patient assessment. In addition to the ‘gut feeling’ participants described having when they see a patient deteriorating, these methods and tools provided a comprehensive patient picture that they could more easily share with the other providers. • <i>Tools for entering, displaying and monitoring data and data trends</i> – identifying and monitoring a deteriorating patient had been made easier with the implementation of the electronic health record system and its ability to display data over time. A limitation often mentioned, though, was that nurses, RTs and doctors chart their information differently and in different places, making it more difficult to share patient information. <p>Organisational</p> <ul style="list-style-type: none"> • <i>Shared training and language regarding patient risk</i> – training of providers in a common language and terminology that helped to create a collective understanding of patient status, resulting in improved communication, improved mitigation planning and enhanced and coordinated efforts for carrying out the escalation strategy. One frequently mentioned term was ‘watcher’, defined as having a ‘gut feeling’ about a patient that is at risk for deterioration or ‘close to the edge’. Additional influences included experienced providers who have better assessment skills, critical thinking and clinical judgement. Also important were these experienced providers’ knowledge of and effective use of available resources and their ability to train others through peer coaching and debriefs. • <i>Structure to proactively identify and plan for risk</i> – developing and implementing standardised organisational processes and procedures, including huddles, frequent scheduled assessments and ‘check-ins’ by charge nurses and physicians, calling criteria, planning tools and explicit contingency planning. These practices worked to create a collective understanding of unit and hospital-wide patient status, plus expectations, plans and predicted patient care progression. • <i>Structure to support handoffs and continuity of care</i> – clear and standardised handoff practices and knowledge of the patient’s initial and current status and the patient’s family. • <i>Structure that supports adequate workload/staffing</i> – improved staff-to-patient ratio to ensure that patient monitoring is appropriate and timely, an experienced and diverse team of providers available on all shifts and extra resources available if needed. Negative 		

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<p>influences on situational analysis were the demands of caring for very sick patients or those with whom providers have less personal and clinical familiarity (ie, disease type). Additional negative influences included having fewer resources (specifically on night shifts) and competing demands due to heavy workload.</p>		
<p>Recommendations to overcome barriers in EOC in nurse graduates</p> <ul style="list-style-type: none"> • <i>Shared structured communication tools</i> Introduction/ identify-situation-background-assessment-recommendation (ISBAR) can be particularly effective when urgent action is necessary, helping to develop critical thinking essential for effective information transfer and teamwork. • <i>Realistic workload</i> Graduates need a realistic workload allocation with preceptor input. A gradual increase in workload over time increases confidence and facilitates independence in graduates. A prolonged orientation and supernumerary period would allow graduates to perform a range of clinical skills under expert clinical supervision, promoting a cohesive team environment. These factors appear particularly significant for graduates in rural and remote areas where resources, time and staff support are limited or unavailable. • <i>Education</i> Simulation is increasingly included in educational programmes and would provide graduates with the opportunity to identify and problem-solve complex clinical situations of patient deterioration in a safe and controlled environment. • <i>Precise use of communication tools</i> In conjunction with simulation, graduates along with other healthcare staff require education on precise communication tools, 'track and trigger' charts and clinical escalation policies so they identify patient deterioration and act appropriately. • <i>Strong preceptor guidance</i> Assists graduates to feel confident to follow the correct escalation of care procedures without fear of reprimand (one of the most influential factors on graduates in patient deterioration situations). 		<p>Purling & King (2012)</p>

Recommendations for practice/ Models and tools in practice	Outcomes reported	References
<p>The need for supervision for clinical oversight.</p> <p>Models developed for providing clinical oversight of medical trainees by senior medical staff:</p> <p>Studies distinguish between three types of supervision: educational supervision (to develop the trainee's knowledge and skills), supervision to support reflection and learning from experience and supervision for clinical oversight (supervisor working alongside the trainee to ensure safe, high quality trainee practice).</p>	<p>Evaluation of models for clinical oversight (effectiveness with respect to specific patient outcomes indexing safety and quality of care):</p>	<p>Health Education and Training Institute (2013)</p>
<p>EVIDENCE-BASED MODELS OF CLINICAL OVERSIGHT</p> <ul style="list-style-type: none"> • Supervision for clinical oversight <p>Tools for supervision described in included studies in this review include direct observation, feedback, case studies, problem-based learning, use of learning objectives, pastoral care, interpersonal skills, personal development, reflection and use of surveys. An example is SUPERB/SAFETY model.</p> <p>Helpful supervisory behaviours that were identified included giving direct guidance on clinical work, providing feedback, engaging in joint problem solving, reassuring the trainee and providing a role model. Ineffective supervisory behaviours included rigidity, low empathy, failure to offer support, failure to follow the trainee's concerns, not teaching, being indirect and intolerant, and emphasising negative aspects.</p> <ul style="list-style-type: none"> • Communication and clinical oversight • A supportive environment for clinical oversight • Trainee assessment and clinical oversight 	<ol style="list-style-type: none"> 1. The methods of oversight used, the aspects of the trainee's professional practice that are subject to clinical oversight and the intensity of clinical oversight vary according to trainee, supervisor and organisational factors. In particular, included studies demonstrate: 2. The less experienced the trainee, the greater the requirement for more intensive clinical oversight. Trainees at the beginning of their training, who have less experience in clinical practice or who are at the beginning of a rotation in a new clinical area require more intensive clinical oversight 3. The less knowledge the supervisor has of the trainee, the greater the requirement for more intensive clinical oversight. The supervisor's vigilance should be increased when interacting with trainees with whom the supervisor does not have an established professional relationship 4. Direct supervision is a central requirement of clinical oversight of 	

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<p>INTERNATIONAL MODELS OF CLINICAL OVERSIGHT</p> <p>Regulatory and educational institutes' supervision mandates health service models of clinical oversight</p> <ul style="list-style-type: none"> • Consultant delivered care • Nursing rapid response teams. <p>A framework for clinical oversight of medical trainees should incorporate the following evidence-based components:</p> <ul style="list-style-type: none"> • supervision • communication and • a supportive environment <p>Available literature suggests that, regardless of clinical discipline or stage of training, clinical oversight is enhanced when more experienced health care professionals set expectations, recognise uncertainty, plan communication, are easily available, reassure trainees and provide the trainee with autonomy.</p>	<p>medical trainees working in procedural areas of clinical practice. The less experienced the trainee and the greater the risks to patients associated with the procedural area, the greater the requirement for direct observation</p> <p>5. Models of clinical oversight need to be tailored to individual clinical specialties. what best practice</p>	
<p>Suggestions for attending physicians providing supervision included:</p> <ul style="list-style-type: none"> • setting expectations, • recognizing uncertainty, • planning communication, • having easy availability, • reassuring residents, • balancing supervision, and having autonomy. <p>Suggested resident strategies for seeking supervision from attending physicians included:</p> <ul style="list-style-type: none"> • seeking input early, • contacting for active clinical decisions or feeling uncertain, • end of life issues, • transitions in care, • help with systems issues. <p>Common themes suggested by trainees and attending physicians included easy availability</p>	<p>Qualitative analysis revealed a bidirectional model of suggested supervisory strategies.</p> <p>Qualitative evaluation of the model demonstrates the validity of the constructs of supervision that the model includes.</p>	<p>Farnan et al. (2010)</p>

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and preservation of resident decision-making autonomy.		
<p>SUPERB/SAFETY MODEL OF CLINICAL OVERSIGHT</p> <p>A supervisory model of clinical oversight for trainees to seek input early from supervisors, contact the supervisor for active clinical decisions or when uncertain, to address end of life patient issues, transitions in care and / or to receive assistance with systems issues. This is articulated in the author's SUPERB/SAFETY model of clinical oversight as follows:</p> <p>SUPERB supervision by supervisors:</p> <ul style="list-style-type: none"> • Set expectations for when to be notified • Uncertainty is a time to contact • Planned communication • Easily available • Reassure resident to not be afraid to call • Balance supervision and autonomy for resident <p>SAFETY in supervision for trainees:</p> <ul style="list-style-type: none"> • Seek attending input early • Active clinical decisions • Feel uncertain about clinical decisions • End-of-life care / family / legal discussions • Transitions in care <p>Help with the sYstem / hierarchY</p>		

Key: EOC – Escalation of care; OR – operating room; ICU – intensive care unit; RRT – rapid response team; RT – respiratory therapists; PEWS – paediatric early warning score

References

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