

## Barriers for the escalation of care: reasons why clinicians fail to escalate care in hospitals (Part A)

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### Citation

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## Executive Summary

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### Background

The Centre for Clinical Effectiveness received a request to review the evidence about the failure to escalate care in hospitals. The summary of evidence about escalation of care consists of two parts. Part A is a rapid review of literature that identifies the barriers that clinicians (nurses and doctors) face when escalating care. Part B is an evidence snapshot of the evidence to inform best practice for the escalation of care. This review provides a summary of evidence for Part A. For the purpose of this review, the recognition and communication of patient deterioration to a senior colleague can be termed escalation of care (EOC).

### Objective

This rapid review of literature identifies the barriers described by clinicians (nurses and doctors) to escalate care. The review presents evidence listed according to themes: personal, environmental, organisational, and patient factors.

### Question

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

Part A: What are the perceived barriers in escalating care and/or reasons for not escalating care?

### Search Strategy

Searches were performed in Google; Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present; and CINAHL Plus for publications in English between 2011–2016 (Appendix Table 1).

### Results

Database searches returned 841 results. Nine publications met the inclusion criteria (Appendix Table 2) and included one high quality systematic review in the surgery setting; and qualitative studies based in other hospital settings (specialties) were included to provide more in-depth information around barriers and reasons to failure of escalation of care.

The systematic review described factors that affect failure of escalation of care in the surgery setting, <sup>1</sup>, one literature review that described barriers that graduate nurses face when escalating care in an acute care setting, <sup>2</sup> and seven single or multi-centre cohort studies which included qualitative data from surveys and interviews of doctors and nurses identifying perceived barriers and reasons of failure to escalate care in various hospital settings. <sup>3-9</sup>

### Conclusions

Two main elements contribute to barriers in escalation of care: 1) the failure to recognise patient deterioration, and 2) the failure to communicate concerns to a senior colleague. <sup>1</sup> Barriers for the escalation of care are listed according to five main themes. These themes were common across both disciplines (medical, and nursing).

- **Personal factors:** <sup>1-6</sup> Clinical inexperience (lack of past similar experience of patients, experience in escalating care, having prior negative experiences, or human error in documentation or measurement of patient data) is a barrier that occurs across hospital settings that leads to failed recognition of patient deterioration. Overconfidence and high self-expectation to be able to manage patients adequately, a fear of negative responses from senior colleagues are other reasons why clinicians fail to communicate concerns to seniors.

- **Environmental factors:**<sup>1, 2, 4, 6, 9</sup> High staff workload puts time pressure on junior staff resulting in missed clues on detecting patient deterioration. High workload also hinders senior staff's prompt response to escalation calls; and poor clinical support (i.e. limited senior medical staff available or inaccessible) is a barrier that doctors and nurses face across all hospital settings that contribute to communication failure. Communication failure (due to faulty systems and devices or lack of teamwork) between team members is a barrier to the escalation of care in surgery and medicine.
- **Organisational factors:**<sup>1-5, 7</sup> Unclear escalation protocols and procedures, uncertain accountabilities between care teams or the absence of fixed frameworks are barriers that contribute to failed communication between junior and senior staff.
- **Team factors:**<sup>1, 4, 5, 7, 9</sup> Hierarchical barriers in the organisation or the fear of criticism by senior colleagues are also perceived barriers by junior staff. Disagreements or lack of teamwork due to unfamiliarity or lack of trust among team members contribute to communication failure which is a barrier to the escalation of care.
- **Patient factors:**<sup>2, 4, 9</sup> When clinical staff are unable to examine or communicate with the patient, or if standardised tools for assessment and monitoring of patient data are unavailable or not used, there is insufficient objective patient data collected to support clinicians' decisions to escalate care. This acts as a barrier to staff raising concerns with their senior colleagues.

## Barriers for the escalation of care: reasons why clinicians fail to escalate care in hospitals (Part A)

### Introduction

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The Centre for Clinical Effectiveness received a request to review the evidence about the failure to escalate care in hospitals. The summary of evidence about escalation of care consists of two parts. Part A is a rapid review of literature that identifies the barriers that clinicians (nurses and doctors) face when escalating care. Part B is an evidence snapshot of the evidence to inform best practice for the escalation of care. This review provides a summary of evidence for Part A. For the purpose of this review, the recognition and communication of patient deterioration to a senior colleague can be termed escalation of care (EOC).

### Objective

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This rapid review of literature identifies the barriers described by clinicians (nurses and doctors) to escalate care. The review presents evidence listed according to themes: personal, environmental, organisational, and patient factors.

### Question

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

Part A: What are the perceived barriers in escalating care and/or reasons for not escalating care?

### Methods

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Searches were performed in Google; Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present; and CINAHL Plus for publications in English between 2011–2016.

Details on the inclusion criteria and search strategy can be found in Appendix Tables 1 and 2.

### Findings

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Overall, our database searches returned 841 results (Appendix Table 2). After removing duplicates, a total of 797 publications were screened; and 13 full texts were retrieved. Eight publications met the inclusion criteria (Appendix Table 1) and one publication was included after a hand search of included references. Out of the nine publications included in the review, only one high quality systematic review was identified in the surgery setting; qualitative studies based in other hospital settings (specialties) were included to provide more robust information around barriers and reasons to failure of escalation of care.

We identified:

- One high quality systematic review which described factors that affect failure of escalation of care in the surgery setting. <sup>1</sup>
- One high quality literature review that described barriers that graduate nurses face when escalating care in an acute care setting. <sup>2</sup>
- Seven single or multi-centre cohort studies which included qualitative data from surveys and interviews of doctors and nurses identifying perceived barriers and reasons of failure to escalate care in various hospital settings. <sup>3-9</sup>

Five main themes for barriers to escalation of care were identified: Personal, environmental, organisational, team and patient factors. Two main elements that contribute to barriers in escalation of care are 1) the failure to recognise patient deterioration and 2) the failure to communicate concerns to a senior colleague. <sup>1</sup>

## Summary of Results

Table 1 presents medium to high quality evidence from one systematic literature review and one systematic review which describe barriers and factors for the escalation of care in acute care and surgery settings, respectively. The publications in both these reviews were appraised individually for quality by the authors.

To provide more in-depth information about barriers and reasons to failure of escalation of care in other hospital settings, qualitative studies based in other hospital settings (specialties) were also included in the review. Table 2 presents the barriers to escalation of care listed according to four themes. The table reflects which clinical staff perceived the barrier (i.e. junior doctors, nurses), the hospital setting (i.e. specialty) to which it applied, and the type of evidence that was available (i.e. systematic review or qualitative studies).

**Table 1.** Results from the systematic review <sup>1</sup> and literature review <sup>2</sup>

Type of publication	Author (year)	Population/ setting	Factors and barriers to escalating care
Systematic review (42 publications)	Johnston (2015)	Clinicians/ Surgery	<p>Factors affecting escalation of care:</p> <ol style="list-style-type: none"> <li>1) <i>Identifying deterioration</i> (4 studies): Important reasons for failure to identify deterioration were clinical inexperience, hierarchical barriers, high workload, and overconfidence.</li> <li>2) <i>Communication with a senior colleague</i> (7 studies): A fear of hierarchy, intimidation, or criticism was identified as common barriers. Hierarchical barriers leading to failures in communication. Other factors were the delay in reaching the correct staff, poor communication quality, a desire for independence, and frequent interruptions.</li> <li>3) <i>Responding to deterioration</i> (1 study): If clinicians were not willing to take responsibility for the patient or if senior doctors were busy in clinic or the operating room.</li> </ol>
Literature review (17 publications)	Purling (2012)	Graduate nurses/ Acute care setting	<p>Six major themes were identified and listed according to decreasing number of studies reporting the theme:</p> <ol style="list-style-type: none"> <li>1) <i>Clinical support</i> (14 studies): Nurses feared being considered silly and therefore reluctant to seek support. This barrier was compounded if negative comments were received from more experienced staff role models.</li> <li>2) <i>Lack of nurse experience</i> (11 studies): Nurses' inexperience resulted in non-recognition of abnormal vital signs and interpreting signs of deterioration leading to a delay in treatment. Lack of exposure led graduates to feeling inadequate in the identification and interpretation of deterioration, making them fearful and anxious.</li> <li>3) <i>Overwhelming workload</i> (10 studies): Constant interruptions and time pressures impacted on patient care and detection of deterioration. Nurses were only able to complete required tasks.</li> <li>4) <i>Holistic patient assessment</i> (10 studies): There was a need to use vital signs or other objective data to support nurses' suspicions in order to convince medical staff and gain action. Furthermore, it was difficult to get action from a doctor if no quantifiable evidence was provided for probable diagnosis and interventions. However, dependence on equipment and notion that vital signs were routine also lead to missed clues on detection of patient deterioration. Nurses were unable to put the information holistically.</li> <li>5) <i>Past experiences</i> (7 studies): Previous contact with a patient or past experiences with patients who had similar conditions and symptoms enabled nurses to detect very subtle changes leading to early recognition of rising problems. Previous experience in a rapid response situation was found to inform nurses' decisions to escalate care for a patient.</li> <li>6) <i>Lack of available resources</i> (7 studies): Staff resources such as reduced staff numbers and support, 'covering' doctors who were unfamiliar with the patients, or lack of assistance from an appropriate senior person were highlighted as barriers.</li> </ol>

**Table 1.** Summary of barriers that clinicians' face when escalating care in hospitals

Key: JD-junior doctors; SD – senior doctors; JN – junior nurses; NS – nursing staff; SG – surgery; MD – medicine; AC – acute care; IC – intensive care or critical care; SR – systematic review; LR – literature review; QS – qualitative studies.

Themes	Barriers to escalating care	Staff involved				Setting (Specialty)				Publication		
		JD	SD	JN	NS	SG	MD	AC	IC	SR	LR	QS
<b>Personal factors</b>	1) Clinical inexperience/lack of clinical experience											
	• Failure to identify deterioration and non-recognition of abnormal signs <sup>1-3, 5, 8, 9</sup>	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
	• Wrong judgement or poor insight that may result in delays in escalation of care <sup>4-6</sup>	✓		✓		✓	✓		✓			✓
	• Inadequacy due to lack of exposure (which leads to fear and anxiety) <sup>2</sup>			✓				✓			✓	
	2) Lack of self-efficacy <sup>7</sup> or fear of negative response <sup>5, 9</sup>	✓		✓	✓	✓	✓		✓			✓
3) Overconfidence <sup>1</sup> or high self-expectations for being in control <sup>5, 6</sup>	✓		✓	✓	✓	✓		✓	✓		✓	
4) Negative past experiences												
• Negative comments from experienced staff role models <sup>2</sup>			✓					✓			✓	
5) Human error in transcribing, documentation, measurement or review of patient data <sup>4</sup>	✓			✓	✓							✓
<b>Environmental factors</b>	6) High staff workload											
	• Constant interruptions and time pressures resulting in staff only having time for required tasks <sup>2</sup>			✓				✓			✓	
	• Poor response from senior doctor due to his/her busy schedule <sup>1, 4</sup>	✓	✓	✓	✓	✓				✓		✓
	• Unable to attend to patient promptly <sup>4, 9</sup>	✓			✓	✓	✓					✓
	7) Communication failure											
• Failure to inform or communicate concerns <sup>1, 3, 4, 6</sup>	✓	✓		✓	✓			✓	✓		✓	
• Communication failure due to devices or system (mobile or pagers not answered) <sup>3, 4</sup>	✓	✓		✓	✓						✓	
• Disagreements or lack of teamwork due to unfamiliarity or lack of trust among team members <sup>9</sup>	✓			✓		✓					✓	
8) Inadequate resources or poor clinical support												
• Reduced staff numbers and lack of accessibility/availability /assistance/support from senior <sup>1-3, 5, 8</sup>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
• Senior clinician unwilling to take responsibility for patient <sup>1</sup>	✓	✓		✓	✓					✓		

Themes	Barriers to escalating care	Staff involved				Setting (Specialty)				Publication		
		JD	SD	JN	NS	SG	MD	AC	IC	SR	LR	QS
	<ul style="list-style-type: none"> <li>Faulty equipment or lack of appropriate or technology <sup>4 2</sup></li> <li>No action taken due to unavailability of appropriate facilities <sup>4, 6</sup></li> </ul>		✓	✓	✓	✓		✓			✓	✓
<b>Organisational factors</b>	9) Unclear escalation protocols or procedures	✓	✓		✓	✓						✓
	<ul style="list-style-type: none"> <li>Unclear escalation protocol <sup>3, 4</sup></li> </ul>	✓	✓	✓	✓	✓	✓		✓			✓
	<ul style="list-style-type: none"> <li>Uncertain accountabilities in multiple team involvement <sup>5</sup></li> </ul>	✓			✓	✓						✓
	<ul style="list-style-type: none"> <li>No fixed frameworks in place for junior staff <sup>3</sup></li> </ul>				✓	✓						✓
<b>Team factors</b>	10) Hierarchical barriers	✓		✓	✓	✓	✓			✓		✓
	<ul style="list-style-type: none"> <li>Fear of hierarchy <sup>1, 4, 7</sup></li> </ul>	✓		✓	✓	✓				✓		✓
	<ul style="list-style-type: none"> <li>Fear of intimidation/criticism by senior colleague <sup>1</sup></li> </ul>	✓		✓	✓	✓	✓					✓
	<ul style="list-style-type: none"> <li>Perception that senior doctors (i.e. registrars) are “too busy” <sup>5</sup></li> </ul>								✓			✓
<b>Patient factors</b>	11) Insufficient or unavailable patient data for holistic patient management			✓				✓			✓	
	<ul style="list-style-type: none"> <li>Absence of objective patient data to support decision to escalate care <sup>2</sup></li> </ul>	✓			✓		✓					✓
	<ul style="list-style-type: none"> <li>Sharing of patient data limited due to non-standardised use of tools and applicability of algorithms used <sup>9</sup></li> </ul>	✓				✓						✓
	<ul style="list-style-type: none"> <li>Unable to communicate with patient due to language barrier <sup>4</sup></li> </ul>	✓				✓						✓

## Conclusion

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Two main elements contribute to barriers in escalation of care: 1) the failure to recognise patient deterioration, and 2) the failure to communicate concerns to a senior colleague.<sup>1</sup>

There is good quality evidence in surgery and acute care settings, and evidence from qualitative studies across other hospital settings to suggest that personal factors such as the lack of adequate clinical experience contribute to poor judgement and leads to the failure of recognition of patient deterioration by doctors and nurses.<sup>1-6, 8, 9</sup>

Patient factors such as patient data being unavailable or limited, and environmental factors such as high staff workload prevent prompt detection of deterioration by doctors and nurses and are barriers to the escalation of care in medicine, acute care and surgery.<sup>2, 4, 9</sup>

The reasons why care is not escalated or communicated to senior colleagues are multifaceted. Overconfidence and high self-expectations of being able to manage patients in medicine and surgery setting often result in junior staff failing to raise concerns with senior colleagues.<sup>5, 6</sup> Data from qualitative studies suggest that unclear protocols or procedures and uncertainty of accountabilities within teams are organisational and team barriers that junior staff encounter.<sup>3-5</sup> Evidence (from one systematic review and qualitative studies) implies that junior staff fail to escalate care due to fear of hierarchy.<sup>1, 4, 7</sup>

Poor clinical support (i.e. limited senior medical staff available or inaccessible) is a barrier that doctors and nurses face across all hospital settings that results in the failure of escalation of care to senior colleagues; this is supported by evidence from reviews and qualitative studies.<sup>1 2 3 7, 9</sup>

## Implications for practice

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Factors affecting the decision to escalate care are complex, involving clinical and professional aspects of care. By addressing barriers and understanding the reasons why clinicians fail to escalate care in hospitals, steps to may be developed to mitigate barriers and identify potential enablers for the process.

A summary of evidence on developing best practice for the escalation of care (Part B) identifies recommendations, tools and models in practice.

## Limitations

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The systematic review reported wide heterogeneity across the included studies in terms of measures used to capture the impact of patient and hospital characteristics on clinical processes and outcomes. Qualitative results based on interviews and surveys are based on clinicians' self-reports and perceptions and so reflect their perceptions and opinions. Qualitative research is not meant to be generalised but to provide in-depth understanding of an issue. All qualitative studies were based in single or multicentre hospitals in a specific setting (i.e. acute care or surgery), and not representative of other services or hospital settings.

## References

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1. Johnston MJ, Arora S, King D, Bouras G, Almoudaris AM, Davis R, et al. A systematic review to identify the factors that affect failure to rescue and escalation of care in surgery. *Surgery*. 2015;157(4):752-63.
2. Purling A, King L. A literature review: Graduate nurses' preparedness for recognising and responding to the deteriorating patient. *Journal of clinical nursing*. 2012;21(23-24):3451-65.
3. Johnston M, Arora S, King D, Stroman L, Darzi A. Escalation of care and failure to rescue: a multicenter, multiprofessional qualitative study. *Surgery*. 2014;155(6):989-94.
4. Johnston M, Arora S, Anderson O, King D, Behar N, Darzi A. Escalation of care in surgery: a systematic risk assessment to prevent avoidable harm in hospitalized patients. *Annals of surgery*. 2015;261(5):831-8.
5. Kelly C, S. L, L. H, M. S. Failure to escalate: what stops junior doctors asking for help when they need it? *Asia pacific journal of health management*. 2014;9:3.
6. Shearer B, Marshall S, Buist MD, Finnigan M, Kitto S, Hore T, et al. What stops hospital clinical staff from following protocols? An analysis of the incidence and factors behind the failure of bedside clinical staff to activate the rapid response system in a multi-campus Australian metropolitan healthcare service. *BMJ Quality & Safety*. 2012;21:569-75.
7. Roberts KE, Bonafide CP, Paine CW, Paciotti B, Tibbetts KM, Keren R, et al. Barriers to calling for urgent assistance despite a comprehensive pediatric rapid response system. *American journal of critical care : an official publication, American Association of Critical-Care Nurses*. 2014;23(3):223-9.

8. Rotella JA, Yu W, Ferguson J, Jones D. Factors influencing escalation of care by junior medical officers. *Anaesthesia and intensive care*. 2014;42(6):723-9.
9. Brady PW, Goldenhar LM. A qualitative study examining the influences on situation awareness and the identification, mitigation and escalation of recognised patient risk. *BMJ quality & safety*. 2014;23(2):153-61.

## Appendices

The search was not limited to any hospital specialty (i.e. surgery) or setting (i.e. general medicine). The search inclusion criteria and results from the database searches are shown in Table 1 in Table 2.

**Table 1.** Inclusion criteria for the review

Item	Description
Population/Setting	Inclusion: Clinicians (doctors and nurses) in all hospital settings Exclusion: Patients
Outcomes	Inclusion: Escalation of (patient) care by clinicians Exclusion: drug, dose-escalation, escalation of treatment (patient perspectives)
Publication details	Inclusion: Systematic reviews, literature reviews; where this was not available qualitative studies were also included. Exclusion: Commentaries, editorials, opinion papers
Publication date	2011 – current (3 May 2016)
Databases searched	Google; Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present; and CINAHL Plus.

**Table 2.** Results of database search performed on 3 May 2016

Database	Search Terms	Results
Google	escalate escalation escalating "care", limit (2011-2016)	<b>333</b>
Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present	S1: *Patient Safety/ S2: *Patient Care Team/mt [Methods] S3: *Patient Care Team/st [Standards] S4: *Patient Care Team/og [Organization & Administration] S5: Deteriorat*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier] S6: Decision making.mp. or *Decision making/ S7: Treatment failure.mp S8: *Risk Assessment/ S9: escalat*.mp. S10: S1 or S2 or S3 or S4 or S5 or S6 or S7 or S8 S11: S9 AND S10 S12: Limit S11 to English and Humans S13: Limit S12 to year = 2011 – current	4878 30 1063 6462 95831 146312 41601 21227 26103 313440 1097 888 <b>319</b>
CINAHL Plus	1: MW patient care OR MW patient safety OR MW deterioration OR MW risk assessment MW treatment failure OR MW decision making OR MW risk assessment OR MW team 2: TX escalat* 3: 1 AND 2 4: Limiters – publication year 2011-2016; English Language	243332 5726 432 <b>189</b>
Hand searching of references		<b>1</b>

**Table 3.** Search strategy flow diagram

