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EMPIRICAL RESEARCH QUALITATIVE

A Delphi study to obtain consensus on medical emergency team (MET) stand-down decision making

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Abstract

Aim: A medical emergency team (MET) stand-down decision is the decision to end a MET response and hand responsibility for the patient back to ward staff for ongoing management. Little research has explored this decision. This study aimed to obtain expert consensus on the essential elements required to make optimal MET call stand-down decisions and the communication required before MET departure.

Design: A Delphi design was utilised.

Methods: An expert panel of 10 members were recruited based on their expert knowledge and recent clinical MET responder experience in acute hospital settings. Participants were emailed a consent form and an electronic interactive PDF for each survey. Two rounds were conducted with no attrition between rounds. The CREDES guidance on conducting and reporting Delphi studies was used to report this study.

Results: Consensus by an expert panel of 10 MET responders generated essential elements of MET stand-down decisions. Essential elements comprised of two steps: (1) the stand-down decision that was influenced by both the patient situation and the ward/organisational context; and (2) the communication required before actioning stand-down. Communication after the decision required both verbal discussions and written documentation to hand over patient responsibility. Specific patient information, a management plan and an escalation plan were considered essential.

Conclusion: The Delphi surveys reached consensus on the actions and communication required to stand down a MET call. Passing responsibility back to ward staff after a MET call requires both patient and ward safety assessments, and a clearly articulated patient plan for ward staff. Observation of MET call stand-down decision-making is required to validate the essential elements.

Implication for the Profession and Patient/or Patient Care: In specifying the essential elements, this study offers clinical and MET staff a process to support the handing

over of clinical responsibility from the MET to the ward staff, and clarification of management plans in order to reduce repeat MET calls and improve patient outcomes.

Impact: Minimal research has been focussed on the decision to hand responsibility back to ward staff so the MET may leave the ward with safety plan in place. This study provided expert consensus to optimise MET stand-down decision-making and the ultimate decision to end a MET call. Communication of agreed patient treatment and escalation plans is recommended before leaving the ward. This study can be used as a checklist for MET responder staff making these decisions and ward staff responsible for post-MET call care. The aim being to reduce the likelihood of potentially preventable repeat deterioration in the MET patient population.

Reporting Method: The CREDES guidance on conducting and reporting Delphi studies.

Patient or Public Contribution: None.

KEYWORDS

clinical decision-making, Delphi, medical emergency team, multiple MET calls, nursing, rapid response system, stand-down decision

1 | BACKGROUND

The medical emergency team (MET) call, stand-down decision, is the decision to end a MET response for a given patient after the initial activation. Currently, there is little evidence regarding decisions to end a MET call. MET call patient epidemiology can be separated into two distinct sub-categories: single MET call patients who are treated and recover (Aneman et al., 2015; DeVita et al., 2006; Khalid, Qabajah, et al., 2014; Still et al., 2018) and multiple or repeat MET call patients who transition in and out of MET criteria, warranting several calls to the MET (Calzavacca et al., 2010; Chalwin et al., 2019; Khalid, Sherbini, et al., 2014; Mullins & Psirides, 2016; Na et al., 2020; Stelfox et al., 2014). For both patient groups, clear management and escalation plans are required to maintain patient safety in the post-MET call care phase.

Repeat MET calls may be related to a persistent precipitating cause of patient deterioration (Calzavacca et al., 2010; Chalwin et al., 2019; Khalid, Qabajah, et al., 2014; Mullins & Psirides, 2016; Na et al., 2020; Stelfox et al., 2014) or to human factors such as: poor communication, system constraints, subjective observations, and alarm fatigue, all of which are demonstrated to lead to errors of omission (Berwick et al., 2006; Jones et al., 2011; Lee, 2002; Runciman et al., 2012). Therefore, suboptimal MET stand-down decisions, influenced by these factors, may in turn contribute to the omission of fundamental post-MET call care, ultimately resulting in further deterioration and repeat MET calls for a given patient. Patients who have repeated MET calls have been shown to have poorer patient outcomes, specifically a higher risk of an unplanned admission to intensive care or higher dependency unit (ICU/HDU), increased hospital length of stay inclusive of sub-acute admission, and higher mortality (Calzavacca et al., 2010; Chalwin et al., 2019; Mullins & Psirides, 2016; Na et al., 2020; Stelfox et al., 2014).

What does this paper contribute to the wider global clinical community?

- Avoiding clinical deterioration and adverse events associated with clinical deterioration is an international priority.
- Deciding when it is safe for the medical emergency team (MET) to leave a patient for ward staff to monitor and care for, requires a structured process to ensure patient safety and support ward staff with clear treatment and escalation plans.
- This paper offers expert MET responder consensus on what needs to be considered before the MET depart a patient and ward.

This study aimed to identify the key influences on MET call stand-down decision-making by expert consensus and to establish the essential elements required to make MET call-stand-down decisions.

2 | METHODS

2.1 | Design

The Delphi technique was used to generate a description of the decision to end a MET call and identify the essential elements of MET call stand-down decisions.

The Delphi method is a widely used research technique for gathering expert opinions and making predictions about future

trends or events (Dalkey & Helmer, 1963; Dalkey et al., 1969; Linstone & Turoff, 1975). This study used a traditional Delphi design, which involved two rounds of surveys, and feedback provided to participants after each round to elicit their refined opinions. The traditional Delphi design has several benefits, including its flexibility, anonymity, and ability to generate consensus amongst experts (Dalkey & Helmer, 1963; Keeney et al., 2017; Wilkes, 2015). The iterative process of multiple rounds of questionnaires allows for refinement of opinions and feedback on the previous round, while the anonymity of participants allows for a more open sharing of views without fear of criticism or judgement way (Trevelyan & Robinson, 2015). Additionally, the Delphi method can generate consensus amongst experts, as the process encourages participants to converge towards a shared perspective through the refinement of their opinions over multiple rounds (Flostrand et al., 2020; Hasson & Keeney, 2011; Jacob et al., 2018). Current MET literature lacks a comprehensive description of the decision-making process involved to end or stand-down a MET call. Therefore, an expert-derived approach was employed to generate a detailed description of the optimal process and essential elements that facilitate this decision.

While traditional Delphi designs involve multiple rounds of questionnaires with feedback provided to participants after each round, they can also be distributed via online platforms or email to facilitate the process (McPherson et al., 2018; Varndell et al., 2021). Rigour is essential to ensure that the results are valid and reliable, and several measures can be taken to ensure that the study is rigorous, including participant selection, questionnaire design, data analysis, and the incorporation of participant feedback in future survey rounds.

This Delphi study carefully considered these aspects during the design and conduct of the research to ensure that the results were trustworthy and useful for future research, potential improvement in MET responder practices, and associated policy changes. The Conducting and Reporting Delphi Studies guidance (See File S1) was utilised to guide the reporting of the method, specifically: justification, planning and process, definition of consensus, piloted surveys to support informational input, and prevention of bias (Jünger et al., 2017).

2.2 | Study setting and recruitment

One of the critical aspects of any Delphi study is the selection of participants. In a Delphi study distributed by using email, participants can be recruited from a broader geographical area, which can increase the diversity of perspectives represented in the study (Baker et al., 2006; Beech, 2001; Bowles, 1999). However, researchers need to ensure that the participants have the required expertise and knowledge to provide informed opinions on the topic. To ensure rigour, Delphi studies often employ a purposive sampling strategy. Specifically, where potential participants are identified based on specific criteria, such as their qualifications, professional experience, or previous publications (Baker et al., 2006).

2.3 | Inclusion criteria

Experts for this study were selected based on their substantive contribution to research, knowledge, leadership, and clinical experiences with MET calls in acute hospital settings, their understanding of patient deterioration, and the MET response. Specifically, they needed to have a minimum of 200 h of clinical experience in the MET team as MET responders (with no specific timeframe for this clinical experience) and participated in METs in the last 12 months. They were also selected based on their contributions in supporting the implementation and sustainment of rapid response systems and conducting relevant MET research, that focused on the evaluation and improvement of the MET system. Twelve Australian experts were identified and invited by email to participate in the Delphi consensus. Ten experts agreed to participate in the Delphi survey. Recruitment was conducted by a student researcher who had pre-existing professional relationships with only two of the experts recruited. Neither participant reported to the student researcher. All recruitment emails were sent as a generic email and all email communications between the student researcher and participants were reviewed by the other three senior researchers within the research team.

2.4 | Instrument

An electronic interactive PDF survey was emailed to each expert to maintain a standardised procedure for collecting expert responses and establishing final consensus (Cowman et al., 2012; Flostrand et al., 2020; Jacob et al., 2018; McPherson et al., 2018). The first round of open-ended survey questions were based on the MET and rapid response system literature and included questions centred around the following components: individual patient influences, ward/organisational influences, and communication to be completed: verbal and written actions. An additional open-ended clarification question was included to seek any additional information on the topic. In the second round, closed-ended statements were generated using qualitative content analysis from round one responses (Elo & Kyngäs, 2008; Graneheim et al., 2017; Vears & Gillam, 2022). The content for the second round of the questionnaire was agreed upon before the questionnaire was emailed out to participants for the second round. The second-round survey consisted of closed ended statements and required experts' agreement. Experts' level of agreement was measured using a five-point Likert scale, specifically: 1 (strongly disagree); 2 (disagree); 3 (neutral); 4 (agree); 5 (strongly agree) (Chang et al., 2010; Duffield, 1993; Jacob et al., 2018).

2.5 | Data collection

The study was undertaken from February 2018 to May 2018. The MET call stand-down decision components were evaluated by all experts and their level of agreement ascertained, with no attrition of participants between survey rounds. Responses were collected via email for each round. Up to three reminders were sent to participants. Survey data were aggregated with no identification of individuals. The number of survey rounds was not predetermined with a plan to cease data collection once consensus on the overall description and essential elements of the stand-down decision had been obtained (Figure 1).

2.6 | Data analysis

To ensure rigour, Delphi studies often employ a consensus-building process, where responses are aggregated and presented to participants in subsequent rounds, allowing for further refinement of opinions (Wilkes, 2015). Additionally, the study should use appropriate statistical techniques to analyse the data, such as calculating the median, mean, or standard deviation of responses (Jünger et al., 2017). Content analysis (Elo & Kyngäs, 2008) was employed to reveal the key decision-making elements and conditions of the MET call stand-down decision in round one. This process consisted of the research team looking for repetition of key words and statements within the free text response data via open coding and categorisation (Vears & Gillam, 2022). Synonymous descriptive terms used to describe stand-down decision-making practice were included as headings. These headings were then clustered into higher order derived decision-making elements. Quantitative data analysis, specifically, descriptive statistics: frequency, median, and percentage level of agreement were used for round two of the survey.

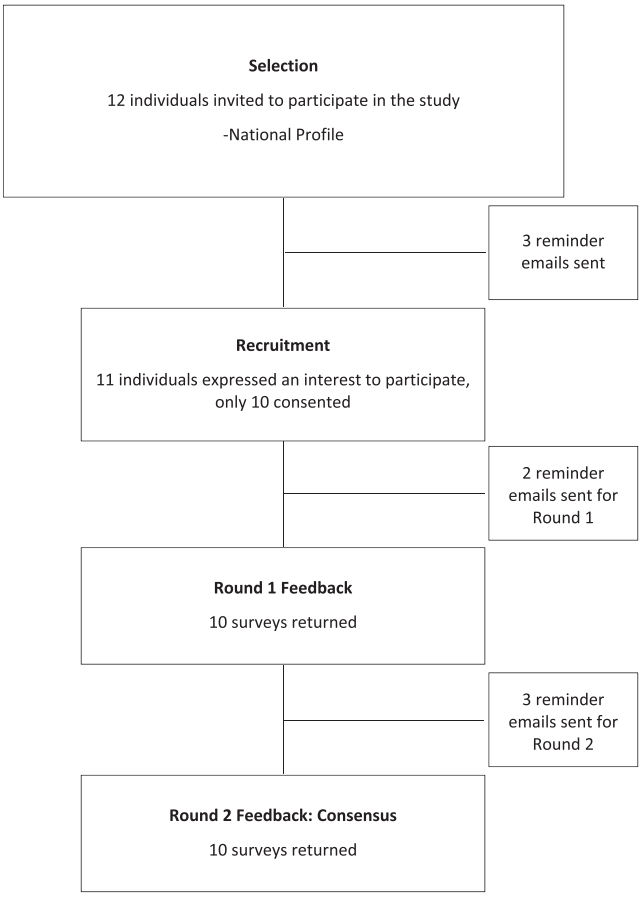

FIGURE 1 Delphi survey processes of recruitment, feedback, and consensus phases.

2.7 | Ethical considerations

This study was approved by Deakin University, Faculty of Health Human Ethics Advisory Group (Ref. 109_2017). A perceived risk for this study was some experts had pre-existing professional relationships with members of the research team. To minimise this, recruitment was undertaken by the student researcher who had minimal prior involvement with individuals within the expert participant group and participation was voluntary.

2.8 | Rigour and reflexivity

To ensure rigour, the questionnaire was pre-tested to identify any ambiguities or biases (McPherson et al., 2018). Additionally, the questionnaire included open-ended questions that allowed participants to provide detailed responses and explain their reasoning. These initial first-round survey questions were pilot tested amongst three people with expertise in the MET response, to see if they were broad enough to generate a complete description of the stand-down decision, inclusive of its essential components. All researchers independently reviewed the survey responses and categorised the text before meeting to discuss the analysis and findings. For the Delphi study agreement or consensus was pre-defined as more than two-thirds (66%) of experts supporting the highest two Likert scale rankings i.e., 4 and 5 respectively for statements provided in the second-round survey. This was denoted as the percentage level of agreement (de Meyrick, 2003). This percentage level of agreement reflected the majority consensus (de Meyrick, 2003; Greatorex & Dexter, 2000; Hasson & Keeney, 2011). Experts were also given the option to provide additional free text supporting comments for each ranked statement for round 2 of the survey.

3 | FINDINGS

The expert panel consisted of four nursing MET responders (40%) and six medical MET responders (60%). Six (60%) were male and four (40%) were female. Each participant completed both survey

rounds. The expert panel was comprised of individuals with varying levels of experience as MET responders. Specifically, 30% of the experts had over 10 years of experience, while another 30% had over 15 years of experience. Additionally, 40% of the experts had over 20 years of experience as part of the MET. The highest level of education achieved by any member of the expert panel was a PhD, either in nursing or medicine, which accounted for 30% of the group. Participants reached consensus on the essential elements of the MET call stand-down decision for bedside practice and associated MET call documentation after two rounds of survey (Table 1). It is important to understand that the consensus reached was intended to describe the MET call stand-down process as per the experts' opinions, rather than to determine the correct approach or support any predetermined judgements about what information to include in the final description of the MET call stand-down decision.

3.1 | Round 1

The first round involved an open-ended questionnaire and identified six essential elements of the MET call stand-down decision related to individual patient and ward/organisational influences, and seven essential communication components for the MET call, which incorporated discussion and written documentation. It also identified the key clinicians who need to be communicated with in making the decision to stand-down.

3.2 | Round 2

The second round involved the experts ranking these six stand-down decision-making elements, seven essential communication components, and the clinicians who needed to be communicated with for the MET call stand-down decision. Consensus was reached after two rounds (see Tables 2 and 3).

Essential elements identified by experts were focussed on the individual patient: patient management plan (100%), patient escalation plan (100%), patient stability (90%), and the aetiology/cause of the MET call (70%). Ward essential elements included: staffing capacity (100%) and ward capability (90%) to manage the patient (see Table 2).

Essential communication components for the MET call identified comprised of verbal discussion points: a clear management plan was articulated (100%) (inclusive of any limitation of medical treatment (LOMT) orders and escalation plan), the plan was communicated with the home team (100%), and all team members present agreed with the management and escalation plans (80%). Written documentation included: patient information (100%) (i.e., history, background, diagnosis, and treatments received), a management plan (100%) (e.g., treatment recommendations and referrals), an escalation plan (100%) (e.g., any LOMT or altered escalation parameters), and the time of the decision (70%) (see Table 3). The experts identified that it was important to communicate the decision to stand-down the MET call with the following clinicians: Treating/Home Team (100%), Nurse in Charge (100%), Bedside Nursing Staff (90%), and the ICU liaison Team (70%) (see Table 3).

TABLE 1 Demographic characteristics of the expert panellists ($N = 10$).

	Round 1		Round 2	
	n	(%)	*n*	(%)
Participants (*n*)	10	(100)	10	(100)
Characteristic				
Sex				
Female	4	(40)	4	(40)
Male	6	(60)	6	(60)
Discipline				
Nurse MET responder	4	(40)	4	(40)
Medical MET responder	6	(60)	6	(60)
MET experience		*n* (%)		
>10 years		3 (30)		
>15 years		3 (30)		
>20 years		4 (40)		
Highest level of education				
Masters (nursing or medicine)		4* (40)		
PhD (nursing or medicine)		3* (30)		
Medical consultant		6* (60)		

Abbreviation: MET, medical emergency team.

*One of the medical MET responders was a medical consultant and held a Masters qualification, two of the medical MET responders were both medical consultants and held a PhD qualification, three of the nursing MET responders held Masters qualifications and one held a PhD qualification.

TABLE 2 Expert consensus on stand-down decision-making elements ($N = 10$).

Stand-down decision-making elements	Median	Level of agreement (%)*
Individual patient influences		
1. Patient management plan	5	100
2. Patient escalation plan	5	100
3. Patient stability	5	90
4. Aetiology of MET call	4	70
Ward/Organisational influences		
5. Staff capacity to manage patient	4	100
6. Ward capability to manage patient	4	90

Note: 1. Patient management plan: documentation of the specific patient management plan intra and post MET call which consisted of specific treatment recommendations and referrals. 2. Patient escalation plan: documentation of the specific escalation plan post-MET call i.e., new or altered LOMT orders, change to escalation parameters i.e., CRC/MET clinical review criteria, standard parameters for escalation i.e., CRC/MET criteria, and other to capture informal escalation processes outside of formal MET call response. 3. Patient stability: that a patient assessment had been made to ascertain patient's medical stability re: resolution of deterioration. 4. Patient information related to the reason for the MET call: documentation of the specific calling criteria for the MET call and MET call diagnosis. 5. Staff capacity: Skills mix and staffing resources at the time of the MET call stand-down relating to appropriateness for handover of ongoing patient care in the post-MET call phase. 6. Ward capability: ward capability to deliver post-MET call interventions and provide ongoing care for the patient once the formal MET call response has been ceased.

Abbreviations: LOMT, limitation of medical treatment; MET, medical emergency team.

*Includes Likert scores 4 and 5.

TABLE 3 Essential communication to be completed before MET stand-down ($N = 10$).

Essential communication	Median	Level of agreement (%)*
Verbal discussion		
1. Clear management plan articulated (inclusive of LOMT orders and escalation plan)	5	100
2. Plan communicated with treating/home team	5	100
3. Team members present agree to the management and escalation plans	4	80
Written documentation		
4. Patient information (e.g., history, background, diagnosis, treatment received)	4	100
5. Management plan (e.g., treatment recommendations and referrals)	5	100
6. Escalation plan (e.g., any LOMT or escalation parameters)	4.5	100
7. Time of decision	4	70
Clinicians to be communicated with in making the decision to stand-down	**4**	**100**
Treating team/Home team	5	100
NIC (Nurse in Charge)	4	100
Bedside nursing staff	5	90
ICU liaison team	4	70

Note: 1. Patient information: documentation of presenting problem/illness/diagnosis for the patient for this admission, and relevant past medical history to provide context for the MET call. 2. Management plan: documentation of the specific patient management plan intra and post MET call which consisted of specific treatment recommendations and referrals. 2. Escalation plan: documentation of the specific escalation plan post-MET call i.e., new or altered LOMT orders, change to escalation parameters i.e., CRC/MET criteria, standard parameters for escalation i.e., CRC/MET criteria, and other to capture informal escalation processes outside of formal MET call response. 4. Time of decision: the recorded time of the MET call stand-down decision.

Abbreviations: LOMT, limitation of medical treatment; MET, medical emergency team.

*Includes Likert scores 4 and 5.

4 | DISCUSSION

This study describes the expert consensus on the essential elements of stand-down decision-making. Elements identified, included both patient influences and ward-based/organisational influences. This information provides a basis for METs to optimise their decision-making when deciding to leave a patient and return the care to the ward staff. Experts identified four individual patient elements: a patient management plan (100%), a patient escalation plan (100%), patient stability (90%), and the aetiology/cause of MET call was identified (70%), and two ward/organisational elements: staffing capacity (100%) and ward capability (90%) to manage the patient.

Patient stability was a major influence on experts' decision to stand-down the MET call and leave the patient. Specifically, the study experts defined this to be when the patient's observations and vital signs have stabilised, the patient's condition had improved and when there is no imminent threat of further deterioration. This is supported by the findings from the first consensus conference on METs (DeVita et al., 2006), which described the end of a MET response occurring once the initial patient crisis has resolved in terms of physiological deterioration. Other studies argued patient stability should be acknowledged before ending a formal MET response (Stelfox et al., 2014; Still et al., 2018), and used this to determine whether a patient requires transfer to higher level of care or treatment to manage ongoing instability (Aneman et al., 2015; Khalid, Qabajah, et al., 2014). Congruous to the literature, our study supports the requirement of ensuring the patient has stabilised physically before deciding to end a MET call. Subsequently, this acknowledgement of patient stability informs the patient's post-MET call management and escalation plans.

Individual patient management plans were identified by experts as a necessary requirement before ending the MET response. Several studies have identified that an individual management plan for the patient's deterioration be actioned within the MET call environment (Casamento et al., 2008; Schneider, Calzavacca, Jones, et al., 2011; Schneider, Calzavacca, Mercer, et al., 2011; Topple et al., 2016) and that this activity is part of the efferent limb/action arm of the MET call (DeVita et al., 2006). None of these studies however, described the way in which it should be communicated, or how this process occurs. Experts in our study identified that a discussion with the bedside staff and treating team taking over the post-MET call care should occur so that the ward team are clear about the management and escalation plans, agreed upon, before the MET leave the ward.

A literature gap exists with respect to the communication of individual management and escalation plans as part of the MET call stand-down decision making process. Few studies have identified that the post-MET call patient management plan is an important part of handover at the end of a MET call (Calzavacca et al., 2010; Cretikos & Hillman, 2003). One study specifically details the process being stepwise and ensuring the patient has a clear management plan including appropriate follow-up (Jones, Duke, et al., 2006). There was unanimous consensus amongst experts that a patient's management plan should be documented as part of the stand-down decision. Specifically, they reported this should consist of treatments such as: medication delivery, IV therapy, bloods, diagnostics, non-invasive ventilation nasogastric, or indwelling catheter insertion. Some experts provided further explanation that this ongoing care should be clearly separated from the care received within the MET call. Interestingly, only two studies described MET call documentation (Casamento et al., 2008; Mardegan et al., 2013). Specifically, they discussed the importance of patient outcomes, referrals and transfers but failed to incorporate the patient's ongoing management plan.

Experts agreed that communication of a clear management plan, inclusive of LOMT orders and any alterations to the escalation plan, was an essential action to be completed before ending the MET call. Several studies supported this element as an opportunity to reassess goals of care, LOMT orders including not for resuscitation (NFR) status (Brown et al., 2017; Jones et al., 2012; Orosz et al., 2014; Smith et al., 2014). Our study experts also highlighted that a management and escalation plan with a review of treatment were essential components of the decision to end a MET call.

This review of patient care delivery and any limitations to this at the end of a MET call, is fundamental to the establishing a patient's post-MET call escalation plan. Only two studies discussed the need for a reviewed escalation plan post MET call, (Schneider, Calzavacca, Jones, et al., 2011; Schneider, Calzavacca, Mercer, et al., 2011) even though this was included by experts in our study in the final consensus. Reviewing the escalation plan and any changed parameters as part of the MET stand-down decision may prevent repeat MET calls and alarm fatigue amongst ward staff and MET responders (Massey et al., 2014; Mullins & Psirides, 2016). Experts believed it provided a plan for the treating team, and when to seek referral to MET call responders outside of the formal MET call response. This informal escalation pathway and plan, specifically focussed on post-MET call treatments, care delivery, and expected response to intervention(s).

Experts emphasised that the escalation plan was distinctive from a management plan, whereby, the escalation plan referred to the specific pathways for communicating concerns regarding ongoing patient deterioration in the post-MET call phase. Additionally, experts identified that any variations to the standard MET response escalation criteria were to be included as part of the escalation plan before ending the MET call. This was supported by three salient studies on alterations to MET criteria as an outcome of a first MET call (Flabouris et al., 2016; Ganju et al., 2019; Sprogis et al., 2021). Our study supported this literature, with experts emphasising that alterations to MET criteria and clinical review criteria be an outcome of the first MET call if required for a given patient.

Communication of these variations was deemed integral by experts, to prevent future deterioration and potentially inappropriate treatment post-MET call. Two studies discussed the importance of documenting the attending MET response team and doctor completing the MET call form, but not variations to escalation parameters (Casamento et al., 2008; Mardegan et al., 2013). Therefore, this consensus study argues that escalation plans, and their documentation be included as part of the MET call stand-down process. Escalation plans are also often influenced by extrinsic factors such as ward capability and staff capacity to undertake post-MET call care delivery.

Experts highlighted consideration of ward capability and staffing capacity as part of the stand-down decision-making process. Ward capability and staffing capacity was an assessment of ward resources incorporating both staff skill mix, and equipment availability in supporting post-MET call treatment and care delivery. The terms ward capability and staff capacity were not specifically referred to in the literature. Although research did not directly discuss the need to consider ward capability to deliver post-MET call interventions, some studies did discuss the consideration of disposition of the patient at the end of the MET call i.e., no change in location, transfer for treatment or transfer to higher dependency

environments (Jones et al., 2011; Oglesby et al., 2011; Topple et al., 2016). Several studies also considered the suitability of the current area, and whether or not it was appropriate to deliver the post-MET call care, implying ward capability and staff capacity (Calzavacca et al., 2010; DeVita et al., 2006; Jones, Mitra, et al., 2006; Jones et al., 2011).

No studies specifically acknowledged staffing capacity at the end of a MET call to support ongoing care and minimise risk of further deterioration. However, a systematic review (Burke et al., 2022), which included several single and multicentre studies, did demonstrate that staffing levels, particularly regarding bedside nursing ratios, are essential to reduce the likelihood of failure to rescue, subsequently preventing in-patient deterioration and death. Our study supports the literature in reviewing the appropriateness of a clinical area to manage the patient in the post-MET call phase, specifically acknowledging ward capability and staffing capacity.

The MET stand-down decision is incompletely described in the literature, with little research aiming to examine the stand-down decision, decision-making practice, and the influences on this practice. This consensus study provided a description of the essential elements of MET stand-down decision-making. This information provides new knowledge, promotes insight and understanding into the MET stand-down decision and a closer examination of what experts believe to be the best approach.

A strength of this study was the expert consensus was reached after two rounds. Literature supports that having between 10 and 20 experts in a Delphi survey is ideal to achieve consensus (Baker et al., 2006; Couper, 1984; de Meyrick, 2003; Duffield, 1993). Our study included 10 experts, with two-rounds required. This is supported by the literature that demonstrates low-round Delphi studies with a smaller expert group yield a more accurate consensus (Baker et al., 2006; Chang et al., 2010; Couper, 1984; de Meyrick, 2003; Duffield, 1993). The percentage level of agreement threshold for expert consensus was set to 66%. No concrete recommendations are evident in the literature, with the threshold set, differing from study to study (Baker et al., 2006; Chang et al., 2010; Couper, 1984; de Meyrick, 2003; Duffield, 1993). In our study the threshold supported strong agreement from the experts, and was exceeded in all areas. A limitation of our study was that although independent participant responses were anonymous, round 2 of the Delphi survey did include the majority's collated responses from round 1 for ranking. Therefore, the expert participants could potentially be persuaded by the status quo when ranking a decision-making element. This limitation was addressed via the use of a clarification question, to ensure individuals could maintain distinct discrete responses where appropriate, explaining their reason for agreement or disagreement with a specific element.

Further studies involving observations, interviews, and documentation reviews are required to provide a more detailed understanding of what occurs in actual practice compared to what is the ideal case. This may also help ascertain if the stand-down decision's absence or inadequacy may impact future patient deterioration represented by repeat MET calls.

5 | CONCLUSION

Seeking consensus of expert MET responders by employing the Delphi method identified the essential elements of stand-down decision-making that have been inadequately described in the literature. Expert MET responders specifically identified the essential elements required to make optimal MET call stand-down decisions. These safety-focussed essential elements are hypothesised to potentially protect patients from future deterioration manifested by repeat MET calls. By building an expert consensus, this phenomenon now offers a practice benchmark to support MET responders to make improved MET call stand-down decisions. Further international research is recommended to support this Delphi consensus.

FUNDING INFORMATION

None.

CONFLICT OF INTEREST STATEMENT

We have no known conflict of interest to disclose.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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