NIHR Policy Research Unit: Quality, Safety and Outcomes of Health and Social Care

The formative evaluation of the implementation of Martha's Rule:

Interim Report

March 2026

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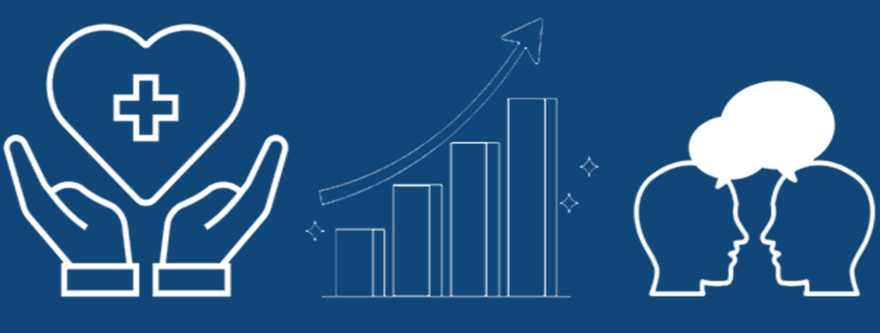
QSO- Quality



Safety Outcomes Experience

Disclaimer, Acknowledgements & Accessibility

DISCLAIMER

This research is funded by the National Institute for Health and Care Research (NIHR) Policy Research Programme, conducted through the Quality, Safety, and Outcomes Policy Research Unit (NIHR206117). The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.

Acknowledgements

We would like to acknowledge and thank the staff at our participating research sites and NIHR Research Delivery Network (RDN) for their collective support with the ethnographic case study, as well as the Academic Advisory Group who steered the evaluation throughout: Jennifer Bostock (Lay lead) Joanne Cooper, Kate Grailey, Andy Husband, Taofikat Jimoh-Uthman, Nicola Mackintosh, Jane Murkin, Caroline Sanders, Duncan Smith, Chris Subbe, Liz Tomlin, Alice Turner, Cecilia Vindrola, and John Welch. Members of Public Advisory group, including Jackie Kiltie, Sarah Markham, and Deb Smith, provided input from the early design phase of the evaluation and supported analysis and interpretation of the findings. Finally, we would like to thank the Picker team for collaborating with us on the public survey, and YouGov and Care Opinion for facilitating the delivery of the survey to their panels.

Accessibility

All diagrams and images in this report include descriptive alternative text to promote accessibility for all readers. The alternative text is compatible with screen readers and can be accessed using assistive technologies.

Executive summary

The death of Martha Mills, aged 13, following sepsis prompted national reflection on how the concerns about deterioration raised by patients and families are acted upon in acute settings. An inquest into her death highlighted failures to listen and respond to the family's concerns, actions that could have prevented her death. Martha's parents, supported by agencies such as Demos and the office of the Patient Safety Commissioner, called for urgent improvements to patient safety policy to address this. Martha's Rule is now a central focus of national patient safety policy designed to ensure that the views of patients and their families about the patient's condition are captured daily and any concerns about deterioration are taken seriously and actively responded to. This policy was rolled out in 2024 by NHS England across 143 sites acute pilot sites.

This interim report presents findings from an independent formative evaluation addressing a number of research questions about the factors that contribute to successful implementation of this policy and the potential and actual impact of the first phase of its rollout for services, healthcare staff, and patients and families. It draws on a prospective case study across three pilot sites, involving observations, interviews and documentary analysis, accompanied by a systematic review of literature and a public awareness survey conducted in collaboration with Picker.

Phase 1 of the rollout of Martha's Rule began in June 2024, and phase 2 in April 2025. Our data were collected in three hospital sites from the early stages of their own rollout, from November 2024. Observations were carried out until September 2025, with interviews continuing through to February 2026. We conducted 63 general observations, 120 focused observations, and 115 interviews, whilst ensuring a diverse sample. Additionally, we have completed a systematic review and a public survey of 2047 respondents. Interim analysis of this multi-source data revealed that a third of the public and patients and family are aware of Martha's Rule. Each site had developed its own approach to implementation, adapting their strategy and/or delivery model as rollout progressed. Moreover, all components of Martha's Rule are evident at sites, with the Patient Wellness Questionnaire (PWQ) selected as the Trusts' preferred tool for obtaining daily information on the patient's condition - this was only implemented on a small number of wards in each site prior to further rollout across the Trust. Patients, family and staff reported that MR amplifies their voices and promotes collaborative care in acute settings. Alongside this progress, a number of challenges were identified. These included: an observed shift in how the PWQ was operationalised, with more informal approaches replacing its intended use; limited information and framing of the PWQ for patients and family; inconsistent communication about actions following rapid response; additional demands and emotional burden on responding teams; and barriers to access for some groups that may be most in need of Martha's Rule.

With input from stakeholder groups, the final findings will be collated and translated for patient, family and public audiences, and will support the development of further summative research as well as inform guidance for trusts planning to implement Martha's rule in the next phase of the rollout.

TO JUMP DIRECTLY TO THE KEY LEARNING POINTS AND IMPLICATIONS FOR POLICY AND PRACTICE, PLEASE CLICK HERE

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List of acronyms

CCO	Critical care outreach
CCOT	Critical care outreach team
DGH	District general hospital
DHSC	Department of Health and Social Care
MR	Martha's Rule
NIHR	National Institute of Health and Social Care Research
PWQ	Patient Wellness Question(naire)
TH	Teaching hospital

Interim report

This is a report of the prospective 'Formative evaluation of the implementation of Martha's Rule'. Below we provide an overview of the pilot (phase 1) implementation of Martha's Rule, the design of the evaluation, a summary of key findings from interim analysis, as well as implications for policy and practice. This independent research is being undertaken by the Safety arm of the National Institute for Health and Care Research (NIHR) Policy Research Unit in Quality, Safety and Outcomes for Health and Social Care (NIHR QSO PRU) and is funded by the NIHR and the Department of Health and Social Care (DHSC).

1. Background

Martha's Rule (MR) is a major patient safety initiative that was piloted (Phase 1) by NHS England in 143 NHS acute hospital sites with 24/7 access to a dedicated critical care outreach team (CCOT). MR comprises three components, giving all inpatients and their carers (component 3) and ward staff (component 2) the right to an independent clinical review of a patient's condition whenever they feel that themselves or a loved one/patient is deteriorating, but they don't feel that their concerns have been responded to by their immediate team. Additionally, MR requires staff to use a structured approach to obtaining information about a patient's condition from patients and their families at least daily (component 1). These three components of the policy are referenced in this report as MR1, MR2, and MR3.

Poor clinical monitoring has been identified as a cause of preventable death in 31% of cases (Hogan et al., 2012). MR has potential to make improvements patient care and outcomes, and ultimately, prevent such avoidable harms. NHS England has rolled out this initiative at pace and with ambition, recognising the gravity of the problem of deterioration and the imperative to act quickly. They have worked collaboratively with providers, researchers and a variety of other stakeholders to deliver this safety initiative nationally. The policy rule builds on previous research involving patient and family involvement in the identification of and response to acute deterioration, including insights from a realist evaluation of the NHS England Worry and Concern improvement collaborative pilot sites (Welch et al., 2025). MR is complex by its nature and has been implemented at a time of increased strain on a national health system (see next section). Moreover, the evidence base for this specific initiative was limited and therefore, there were unanswered questions about the potential and actual impact of the implementation of MR for services, healthcare staff and patients/families. Recognising this and the benefit of the learning that might be available from an independent evaluation, NHS England recommended an independent evaluation which was commissioned via DHSC and NIHR. This decision not only enables transparency and accountability, but also for learning to inform subsequent and wider rollout of the Rule. While commissioning evaluation alongside implementation carries risk for funders and policy makers alike, particularly where learning surfaces challenges, it is essential for complex-system level interventions and should be regarded as good practice to ensure that intervention function and impact can be fully understood.

MR as a complex intervention

Interventions such as MR are, by definition, complex. They involve multiple actors, interacting with and within existing systems and workflows, and must function across diverse organisational and patient contexts. In such circumstances, it is neither realistic nor desirable to specify all aspects of implementation in advance. Local testing, adaptation and variation are anticipated facets of implementation, and they are central to building a robust and usable evidence base over time.

Accordingly, challenges in the early phases of implementation are to be expected. It is not possible to fully anticipate how an intervention of any kind will be experienced by different patient groups, nor its implications for staff working under varying conditions and constraints. It necessitates evaluation to bring to the fore the enablers and barriers to effective implementation and delivery. Systems should be permitted, as per NHS England directive in this instance, to test interventions locally, reflect on their effects and adapt before scaling. Furthermore, the current initiative is being introduced at a time of sustained pressure on systems, still recovering following the Covid-19 pandemic. These conditions are

not peripheral; they are integral to understanding how Martha's Rule is being implemented and experienced by various stakeholders.

Scope of the evaluation

This evaluation centres on three diverse provider sites of the 143 participating in phase 1 of the rollout. Consistent with ethnographic approaches as well as broader qualitative evaluations of implementation, it prioritises depth of understanding over representativeness, drawing on rich triangulated (multi-source) data to examine how MR is being operationalised and adapted in practice. Thus, this interim report does not offer definitive conclusions on outcomes and effectiveness. Instead, it focuses on early experiences of the rollout, emerging patterns of strategy and adaptation, and individual, interpersonal and contextual factors shaping delivery. This timely learning is intended to support knowledge-building, refinement, and decision-making as the initiative continues to evolve as well as a further summative evaluation to determine outcomes and effectiveness of Martha's Rule.

Summary points:

- NHS England acted with urgency, and sustained effort, to address a critical problem in patient safety. Likewise, NIHR and DHSC commissioned this independent evaluation at an early stage, ensuring that evidence can be generated to support further implementation and evaluation.
- Complex interventions are by definition complex to implement, especially at such scale (143 sites); variation in approaches is a necessary for local testing and adaptation, and challenges are inevitable.
- The focus of this evaluation is formative in nature, seeking to provide rich and nuanced understanding of the process of implementation, and its impact on patients, family and staff; it will not generate conclusive evidence on patient outcomes and the effectiveness of MR.

2. Aims & research questions

The aim of the evaluation was to examine how micro, meso and macro factors (see section 5 for description) interact to influence the development of the local innovation(s) of MR and the success of its implementation as well as its impact on various stakeholders within three English NHS Trusts. Our research questions were:

1. Where an intervention that includes components of MR already exists (in the UK and elsewhere) how well is it perceived to be working?
2. To what extent has MR been implemented in three pilot sites in England and how has this been done over the course of the first phase of implementation?
3. Do members of the public, patients and their families know about and understand Martha's Rule?
4. How do patients experience being asked about their condition on a daily basis?
5. What are the potential challenges and facilitators of delivering the service?
6. What are the anticipated benefits and costs of implementing MR at the meso and micro level?
7. What are the (potential or) realised unintended consequences?
8. Who activates critical care service outreach teams under Martha's Rule and how frequently is it used?
9. What do patients and family members report to critical care outreach teams?
10. Does the daily structured approach to obtaining information on a patient's condition trigger escalation by staff?
11. How do patients experience escalating for critical care outreach team review?

We intend to utilise findings from this evaluation to provide learning for policymakers that will improve approaches to the implementation in phase 2 of the rollout and beyond, as well as to inform the development of a protocol and logic model for a summative evaluation of sites during the next wave of implementation.

3. Methods

We designed a prospective single embedded case study underpinned by an adapted conceptual model that was developed as iterative phases of data collection and analysis progressed (see figure 1). Three acute provider sites were involved in the evaluation; their anonymity is maintained. Two of the sites were large urban teaching hospitals with a diverse local population, and the other, a district general hospital. Two wards in each site were selected for involvement, which included respiratory, non-elective surgery, oncology and paediatric settings, and the respective CCOT. One site had access to remote paediatric critical care support provided by an Operational Delivery Network participating in the pilot.

Data collection from sites involved informal 'fact-finding' interviews with strategic staff and implementation team members, general non-participant observations of wards and CCOTs, structured focused observations of relevant clinical events on wards (e.g. handover meetings, safety huddles, etc.) and the Patient Wellness Question(naire) (PWQ: Albutt et al., 2020, 2021), and staff, patient and family interviews. Screening data were collected for all interview participants to ensure that inclusion criteria was met and demographic information captured. Key materials, such as standard operating procedures, PWQ aids, and posters advertising MR were obtained for the purpose of conducting documentary analysis. In addition, we sought permission from local leads to process site-specific NHS England metrics, collected at a national level from all participating pilot sites in the first wave of the rollout of Martha's Rule.

Alongside this multi-site fieldwork, we conducted a national cross-sectional **public survey** developed by the research team with input from our Public Advisory Group and cognitively tested by Picker. This was delivered by YouGov to a locally representative sample of their panel in two English regions that mapped to our sites and by Picker for a Care Opinion sample. Furthermore, we are conducting a **systematic review** to update a previous review (A. K. Albutt et al., 2017) on patient- and family-led systems for identifying deterioration and escalating concerns.

For analysis, we used a framework approach (Gale et al., 2013) to interrogate the various sources of qualitative data. A comprehensive coding framework, based on the research questions and the Consolidated Framework of Implementation Research (CFIR) (Damschroder et al., 2022), was developed iteratively by the team of researchers undertaking the analysis.

Descriptive analysis was performed on site-specific data from national NHS England metric returns. Meanwhile, crosstabulation of a range of variables and demographic data was produced by YouGov and Picker on the public awareness survey for the YouGov sample and further analysed using inferential tests by the research team. Analysis of the Care Opinion dataset is ongoing and not reported here.

A lay research advisor and public involvement and engagement members supported this work. Throughout the evaluation, we have worked closely with lay members with relevant patient and family experience to advise on and inform the study design, study tools and recruitment materials, and to support analysis interpretation and dissemination of the findings.

4. Data capture

Data collected at our three sites involved a sizeable number of general observations and focused observations, as summarised in Table 1. Along with informal conversations with staff during observations, we have conducted 115 interviews involving a range of stakeholders including, strategic and operational leads, implementation team members, ward managers, nursing staff and healthcare assistants, and patients and relatives. Fifteen of these interviews involved family members who contacted the MR helpline.

Table 1. Summary of completed data collection

	Data source	n=
3 sites	• *General observations* (wards and CCOTs)	63
	• *Observations* of PWQ, clinical meetings/events, CCO shadowing	120
	• *Interviews* – Patients and family (n=59), staff (n=56 + informal convo)	115
	• *Documentary sources* (SOPs, comms materials, PWQ aids etc.)	
	• NHSE metrics - monthly returns (Sept '24 - Aug '25)	
	• YouGov public *survey* (respondents)	2047

We ensured the recruitment of a diverse sample of patients and family, particularly in terms of ethnicity, religion, education, income, and employment status. Please see Appendix 1 for demographic characteristics of patient and family as well as of staff participants.

In addition, NHS England metrics from September 2024 to August 2025 have been obtained for each site. In September 2025, we launched our 19-item YouGov panel survey, which was live for 11 days until the completion of data collection. This involved a locally representative sample of 2047 respondents in the two English regions mapping to our three acute providers involved in the evaluation. Demographic characteristics of survey respondents are provided in Appendix 2.

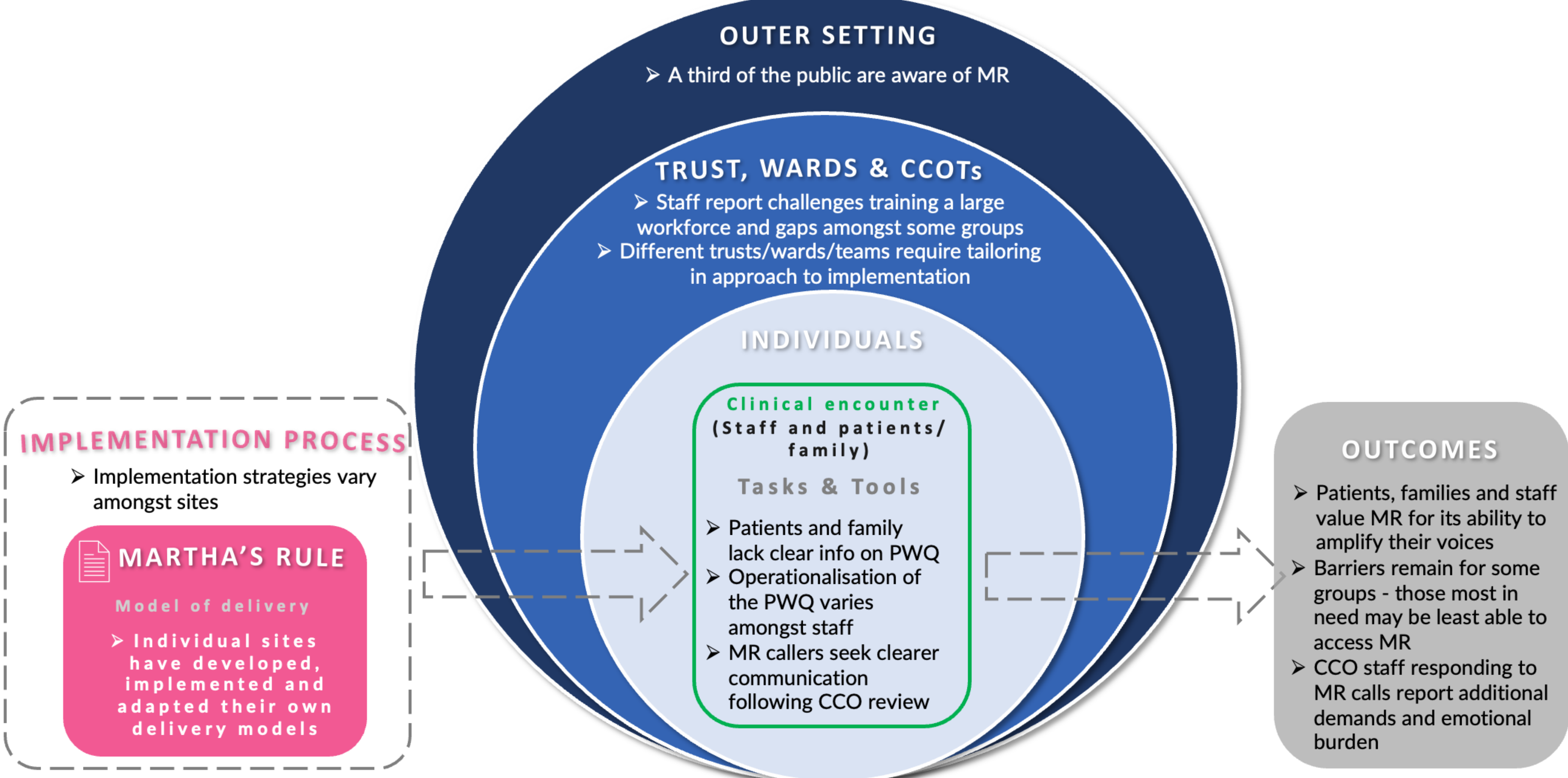
Our updated systematic review resulted in 5053 titles after deduplication. Seventeen academic articles and 7 websites met eligibility criteria after screening. The team has completed data extraction, critical appraisal, and synthesis of the extracted data.

The consolidated interim learning from the above analyses was presented to our funders and NHS England leads for the Martha's Rule programme in a closed webinar in November 2025. Iterative analysis and final data collection to address any gaps is ongoing and due to conclude by end of June 2026. Key insights from these interim findings are presented in the following section.

5. Developing findings

A final report presenting the full analysis and conceptual synthesis will be produced in Summer 2026. Our interim and triangulated analyses (bringing together multi-source data) address the **research questions** listed above. These findings map onto layers of the conceptual model (Figure 1) underpinning the evaluation: 1. implementation process, 2. meso-level moderators (trust, wards, CCOTs), 3. micro level moderators (individuals), 4. outcomes and 5. macro-level influences (outer setting). Figure 1 shows the conceptual model as well as these key learning points, which are briefly described in turn below.

Figure 1. Conceptual model underpinning the evaluation and key interim learning points



Adapted from: Consolidated Framework for Implementation Research (CFIR) 2.0, 2022; Systems Engineering Initiative for Patient Safety (SEIPS) 3.0 (Carayon et al., 2020); Health Equity Implementation Framework (Woodward et al., 2019, 2021).

Research question 1*[1]. *Where an intervention that includes components of Marth's Rule already exists (in the UK and elsewhere) how well is it working?

This research question was addressed via a review of escalation models at the three sites (from interviews with implementation teams and senior leaders and documentary analysis) and an international scoping review, which we draw upon in brief here.

Existing models of escalation at research sites

In the current case study, all three sites had in place existing escalation models which included access to a 24/7 CCOT, and various pathways involving a helpline or bleep service available to staff and, in two sites, for patients and family, as summarised in Table 2. These were utilised to varying degrees by patients and family. One of the sites had in place activation services specifically for patients and family, namely Call4Concern, that connected directly to the CCOT. This site also had in place a helpline service for paediatric referrals linking to a designated paediatric CCOT. These services were adapted in order to deliver a MR helpline. However, the structured approach to obtaining information on a patient's condition was an innovation not previously embedded within any of the acute providers' systems and escalation pathways.

Situating Martha's Rule among other escalation systems

This picture of the models for escalation fits with existing evidence. Interventions that incorporate some components of MR, particularly patient- and family-initiated escalation of care, are already in operation in the UK (e.g. Call 4 Concern) and internationally (e.g. Ryan's Rule). The evidence from the systematic review suggests that these systems are often valued by patients and families and can enhance reassurance and perceived safety. The evidence does not support a "one size fits all" approach, where organisational culture, professional hierarchies and socio-cultural context significantly influence how these interventions function. However, their effectiveness in practice is variable and highly context dependent. Overall, the evidence indicates some perceived benefit, but inconsistent operational impact, with uptake and outcomes differing across settings. Again, Martha's Rule introduces a distinctive component, a structured, proactive questioning of patients about their condition, which was not identified in other escalation systems at the time of this report.

Research question 2*[2]. *To what extent has Martha's Rule been implemented in three pilot sites in England and how has this been done over the course of the first phase of implementation?

Sites were observed from an early stage in their implementation and were between six months and one year into this process before observations concluded; for example, the earliest of the three sites commenced implementation in autumn 2024 and was observed until September 2025. Interviews continued beyond this through to February 2026, and are ongoing to address any gaps as final analysis is completed.

Encouragingly, all three components of Martha's Rule were evident in the three participating sites, with access to an escalation helpline and response service. The PWQ was chosen as the structured approach to obtaining information from patients and family and adopted across all three sites.

Following the official launch of MR in summer 2024, all trusts assembled and mobilised their implementation teams at relative speed; this was catalysed by early executive buy-in and support, prioritising MR above or alongside other quality improvement projects. Whilst developing plans and commencing rollout took time at each site, the DGH, in particular, experienced a delayed start to their rollout, commencing several months after the two larger teaching hospitals. Senior staff in all the three participating trusts reported a great deal of resource invested to set up their IT infrastructure to accommodate recording of MR-relevant activities within electronic patient records, which contributed to slower than anticipated commencement. Implementation team members reported engaging with NHS England and Health Innovation Network to varying degrees, benefitting from some knowledge transfer and shared learning between sites when they did. However,

[1] Draws on data from interviews, documentary analysis and the systematic review.
[2] Draws on data from interviews, observations, and documentary analysis.

organisational managers and implementation team members from all sites also expressed need for more guidance, prompt steer on branding and communications in the early phases of implementation and had expected that rollout would take longer than the initial 12-month directive.

"It is a very big hospital. ....It is a challenge though as digital needs finances which we haven't got. It won't hinder implementation but might hinder the learning from it or the benefits we see from it."
2S003 Organisational leader

"So we kind of just held, like held back a little bit really and just hung fire, because there were conversations about the standardised advertisement, what it was going to be called, and we didn't want to kind of run away and introduce something across the whole Trust, if we were going to have to change everything again. So we held back [for national comms guidance], and I think that kind of delayed us really a little bit..."
2S016 CCO lead

"So we will be so far behind the NHSE schedule [of 12 month to rollout across the trust]..... And I genuinely believe that if anybody says they've completed it, they've either worked a miracle or they've done it as a tick box exercise." 3S004 Organisational leader and Implementation team member

Each site developed their own strategies for implementation, for example, piloting the PWQ on a few wards followed by a progressive or trust-wide rollout. We observed two acute providers modify their strategy from trust-wide to progressive rollout and vice versa following piloting. Similarly, two implementation teams changed their initial plans for triaging the calls to the helpline, in other words, the designated team or individual who would receive the call (e.g. from site matron to CCOT). Table 2 summarises the approaches to implementation developed and adapted by each site.

Table 2. Models of escalation and strategies for implementing Martha's Rule

Site	Existing model	Approach to rollout	MR2&3 Rapid review	MR1 (PWQ) - Implementation commencement
RED (TH)	Bleep system for staff	Co-produced and phased rollout	• Staff - bleep system • Patient/family - direct line to one CCO for triaging (adapted) ↷ • Respond to all calls	Early in evaluation
GREEN (DGH)	Bleep system for staff Site matron triaging calls	Pilot and progressive rollout (adapted) ↷	• All - direct line to CCOT for triaging ↷ (adapted) • Respond to deterioration only • ODN support	Delayed start - several months (adapted) ↷
BLUE – (TH)	Bleep system for staff Call4Concern Paeds line	Pilot and trust-wide rollout across ↷ (adapted)	• All - direct lines to respective paediatric and adult CCO • Respond to all calls	Early in evaluation

↷ *Adaptation to original approach to implementation*

***Research question 3*[3]: *Do members of the* public, patients and their families know about and understand Martha's Rule?**

A national survey was conducted to address the public component of this research question. Screening and interview data provide insights into awareness and understanding of MR amongst patients and family participants.

[3] Draws on data from the public survey, interviews and observations.

Firstly, we focus on public awareness in the outer setting of the conceptual model. As part of the public survey[4] of 2,047 YouGov panel members, we asked people '*Before today, had you heard about Martha's Rule?*' Thirty two percent (n=656) of respondents reported that they were aware of the Rule, with the majority (n=546) learning about this through news or media. For the purpose of further inferential analyses, we collapsed the following responses to create a group reporting they were 'aware' of MR: 'Yes *in the news or media, 'Yes, as a patient in hospital', 'Yes, as a friend or family member visiting someone in hospital, 'Yes, from someone I know', 'Yes, from somewhere else'; and a* 'non-aware' group was created for answers: 'No' or 'Not sure'. This analysis revealed higher odds of being 'aware' of MR amongst some demographic groups: upper school education level (2.5 times the odds), higher education level (four times the odds), trade/vocational job roles (three times the odds), sales/services/supervisory roles (80% higher), middle – upper income groups (40% higher), high income group (55% higher). There were lower odds of being 'aware' of MR amongst those who do not follow national news (58% lower), as well as those without a long-term condition (20% lower). All of these results were statistically significant.

Within the three participating Trusts, 16 (36%) of the 44 patients and family members interviewed from wards reported that were aware of Martha's Rule, whether or not they considered using the escalation service. Most of these participants had learned about the service through the posters on wards; some noting that these were in inaccessible locations and formats (e.g. QR code for further information or access to the helpline number). Some had seen advertisements on screensavers as well as heard of it through the internet, news and media. In terms of comprehension, participants generally understood that they could access the service if they were 'unsatisfied' with or had a concern about their or their loved one's care. A few misunderstood MR to be an opportunity to access a "second opinion". There were mixed views about the adequacy of the information, with some requiring more information to fully understand the rule, their rights and what to expect if needing to activate this. Notably, there was little information available on the structured wellness (PWQ) component of MR.

Research questions 4, 5 & 6[5]: How do patients experience being asked about their condition on a daily basis? What are the potential challenges and facilitators of delivering the service? What are the anticipated benefits and costs of implementing Martha's Rule at the meso and micro level?

Attitudes amongst patients, family and staff about the need for- and underlying premise of- MR were broadly positive. These were particularly strong amongst patients and family, with interviewees often suggesting that the helpline service enabled their voice and that the PWQ component of MR contributed to a sense of personalised care, and enhanced relationships and familiarity with staff.

"I think it's a good rule because it makes people think and maybe check on people a bit more, well staff check on patients a bit more, which I think is a good thing." 2P001 Patient

"I think it's good because at one point they didn't used to do it, so it was just like it wasn't, it didn't feel personal, you felt like a number, whereas now obviously whether they care or not they're still asking you, so it makes it a bit more personal for you which is nicer I suppose." 1F001 Family member

"I suppose I've made a mental note that that nurse does actually listen." 1P002 Patient

The PWQ seemed to open channels of communication with staff, which in turn enabled patients and family to clarify issues, address gaps in care or needs e.g. medications, and to express concerns. Some patient and family participants told us that it could contribute to breaking down hierarchy with staff, empowering them to challenge clinical opinion and facilitate action to address concerns or deterioration.

"I would say being asked [the PWQ] meant you felt open enough to have that conversation and like I said led to other questions and other just general questions and that's quite nice. It's more of a chat than an interview…" 2F006 Family member

[4] Further analysis, quality assurance checks and comparison with a patient and carer dataset (Care Opinion) is ongoing
[5] Draws on data from interviews and observations.

[How did they handle it when you said that you were feeling worse?]...."I think in certain cases it did lead to different lines of questioning." 3P006 Patient

However, there was acknowledgment from system leaders and ward and CCO managers, that buy-in can vary amongst staff groups.

"There's a lot going on. And now you're asking [the Trust] to do something else. And nearly everybody says both 'There's going to be calls all the time. That's going to be terrible. And the ward staff will be undermined.' And a lot of [staff] say, 'well, we already asked patients how they are. So just asking us to do what we do already'.... And then there's a small group usually of doctors who say, where's the evidence base that any of this makes a difference? And you have to have the conversation about that. And different staff need to have conversations with different types of staff to address concerns.... I think most staff talk as if they're up for it. The principle is right. They just worry about how are we going to do it reliably?" 3S004 Organisational leader and Implementation team member

"I think because we are a really busy unit, it just depends on the day, what's happening on the day. Some people will embrace it if it's something that can pop at the top of their brain, but other times it's something that they might be seeing as just another document that needs filling in at some point and they'll get round to it." 1S020 Ward manager

Whist there had been a great deal of concern amongst CCO staff that their workload would become unmanageable, these initial fears had gone unrealised for the most part due to the low number of MR calls.

"[CCOT staff] thought it would increase our workload, there was a bit of worry about it. But now it's in place and it hasn't, I think it's okay." 1S019 CCO staff

"..Initially we were a little apprehensive because you're like, oh, gosh, are we just going to get endless calls all the time from relatives disgruntled about lots and lots of things, but as we started to put it in place, that hasn't happened. So, yeah, I mean, with every change there's always people who are happy and not happy, but I would say, on the whole, everybody's really on board with Martha's Rule [helpline] and can see the need for it and the reason for it." 2S019 CCO staff

Despite not being inundated with calls thus far, there was recognition from a few CCO staff that this had potential to actualise with further rollout across additional wards in the Trusts and greater public knowledge of MR.

I fear that it will become a bit of a yoke around a lot of outreach teams necks because we won't have funding for it, as it goes live across the country in all of the subsequent rollouts and as the general public gets wind of this I think it will be misused and I think it will cause a vast amount of work and a drain on resources that we just don't have. We are ever stretched and I think unfortunately that will happen. So I think its origins come from a good place but I think the implementation, I can't see it working in the way that people envisage it to. 3S014 CCO lead

Some CCO staff reported that there was already an increase in workload and emotional burden, and that managing general patient and family concerns could take attention away from managing acutely deteriorating patients. Along these lines, a few staff also highlighted resource constraints and that CCO staff may be attending to other escalations and not always available to attend to MR calls.

"The problem, obviously, then is you have your day job already, so to try and work [MR] into your current role can be challenging, and I found that as a big challenge." 1S013 IT CCO lead

"Sometimes there are days where the workload, that we have, the acute workload, the emergency calls, etc, can be so overwhelming, that to have this in addition is challenging. And then some days where it's absolutely fine, because the workloads were manageable, the calls come through at times where we can respond to them, without it impacting on what would be the 'bread and butter' of the team which is acutely deteriorating patients." 3S013 CCO staff

Implementing Martha's Rule sometimes can be very difficult if the outreach team is not available at that point. 2S010 Nurse

There was some variation in perspectives between CCOTs that appeared to be associated with the model of delivery. In one model, the CCOs were responsible for triaging all calls, regardless of the concern being linked to deterioration. In these teams there was concern that it might not be within their remit to respond to MR calls, and particularly, escalated concerns that were unrelated to deterioration.

"What I'm not convinced about is whether critical care outreach is the right forum. I think critical care outreach is quite often seen as this panacea to everything… It's such a wide and varying role and I think [MR] is yet another thing ….the NHS as an organisation has been tasked with implementing it and we've been thrown under the bus a little bit. 'Well who's going to deal with it? Oh, outreach will deal with it.'" 3S014 CCO lead

"If it's a day like today, absolutely fine, I've got the time to deal with [MR calls], it's not an issue, it's when you've got a heavy workload, and a lot of sick patients. If that patient's sick, fine, they need us anyway, but if it's a communication breakdown, or family's not happy about anything like that, that's not about the patient needing escalation, that's when it's going to be quite hard to juggle." 3S012 CCO staff

CCOT staff from another Trust with the same delivery model, where they were responsible for managing all calls, reported feeling as though they may be impinging on the ward staffs' remit in addressing general concerns from callers, which could lead to tensions between staff teams.

"I think there's been some initial difficulties in the thought of stepping on people's toes a little bit, because generally, previously if parents were concerned, they would escalate to the nurses, and they would discuss with the doctors, and that would kind of be the end of the road. And I think now we've got this is great, it's another avenue for them to express concerns, and hopefully alleviate the concerns. But I think for the ward teams, it sometimes, I think feels like almost a criticism from the parents, like there's not enough being done, and I'm still worried. So I think there's been some initial difficulties with that." 2S021 CCO staff

"I don't want that to be a conflict with our job as critical care outreach, because we have quite good relationships with all the wards and I don't want them to feel that the Call4Concern phone is like spying and checking up, because there can be quite a conflict then. That isn't what it's about, it's about us all working together in the bigger team. But, yeah, I think part of my anxiety was about how the wards would perceive what we were doing as a, they would think we're maybe policing things, which isn't what, obviously, we are doing." 2S019 CCO staff

There were more positive CCO staff views amongst those operationalising the model that triaged calls and only responded to those involving deterioration.

"I think going forward, it could only improve job satisfaction. Going that step further to advocate for patients and improve outcomes for patients. I can't see how it'd be anything but positive." 1S019 CCO staff

Despite progress with implementation (as described above), a number of other challenges were reported. At the commencement of implementation, training and materials were made available to ward staff and often facilitated by CCO leads. Some staff emphasised difficulties around training their large workforce, which includes bank staff who may be less able to engage. The lack of training provided for medical and specialist teams was identified as an important gap to be addressed not only in terms of supporting delivery of the PWQ, but also in taking any subsequent clinical action.

"I think one of the troubles we did have is because we're such a big workforce….it was just getting everybody trained up and catching everybody just because of the demands on the ward." 1S005 Ward manager

"I feel like it should be rolled out a bit more to medics as well, they should ask [patients] the exact same [patient wellness] questions because they tend to review later on in a shift, so if a nurse is reviewed in the morning on their wellbeing and the medics don't review until later on in the evening, there's a big gap….a medic is going to put a plan in place…." 2S013 Nurse

There were also observed differences in the operationalisation of the PWQ amongst staff; particularly apparent was a shift at the outset of implementation from formal use of the PWQ which closely mirrored the question structure as it was designed (Albutt et al., 2020, 2021) to more informal ways of asking over the course of the rollout. This could mean changing the question, for example, to 'How are you doing today?', and offering limited, simplified, leading or no response options. This was a pattern observed across the sites and participating wards and is illustrated in the example excerpt from a focused observation of the PWQ being asked below:

Nurse: "Do you feel better since this morning? Better, same?"

Patient: "Same".

The nurse and patient then discussed the patient's medication needs, but the patient felt none were needed.

Follow up question by Nurse: "Any other concerns?"

Patient: "No."

3GC03 PWQ Observation

These adaptations to the PWQ seemed to be associated with views of staff and patient experience that it could be too structured and become a nuisance with repetition, the type of ward (relating to acuity, business, speciality) and to particular patient and family groups.

"I think it gets annoying after a while, like because you feel, in yourself, alright and then they have someone say, 'Are you alright?', and then, obviously, but the help's there if you need it." 1P009 Patient

"I think that sometimes if a patient's on hourly observations I think maybe it can get a bit annoying for parents constantly repeating that question." 2S012 Nurse

Patients also cautioned that this could feel like a "pointless" exercise if their expressions of worsened condition were not followed up on and actioned.

"So well exactly that, certainly when I was asked a number of times in a day it felt like it was a bit of a pointless exercise and that was, yeah, again it felt like there was a box that was being ticked and it was just a question on a list and so it felt a bit pointless thinking about what the answer was anyway." 3P006 Patient

"I don't know, yeah, like I've said it's hit and miss with what staff are on [shift], like some I think will listen to you, and then act on it, and then others won't." 1F005 Family member

Furthermore, the PWQ responses were integrated into electronic patient record systems with built-in functions (e.g. drop-down response options), and in one site, on a separate electronic form which was staff reported could be difficult to find. We observed clinical judgement being used by staff when documenting patient or family member's response to the PWQ, such as exampled below. Some indicated to us that they lacked time to complete documentation, and would rely on memory to do this later, but that this also added to their workload.

PWQ

N: "Do you feel better since this morning? Better, same?"
P: **"Same".** They then discussed the patient's medication needs, but patient felt none were needed.

Follow up question
N: "Any other concerns?" P: "No."
3GC03

Documentation

"Better than before" along with notes: "Reports feeling good in himself, no discomfort passing urine. Said he feels great".

Researcher notes: *The **nurse explains that interpretation skills are needed** in asking and recording the PWQ and that she believes he is 'better than before' as he has showered and is passing urine.* 3GC03

Whilst there were broadly positive attitudes amongst patients and family, some highlighted that the PWQ requires framing to ensure their accurate response and their potential to support the detection of deterioration. In other words, patients didn't always understand why they were being asked the questions or how this would be used. This was echoed by a staff member who felt this information was needed with particular patient groups.

"I think the question needs to be framed better….. I always want to understand why someone's doing anything if it's in relation to me but you're not creating any means for anybody to understand what the point in that is." 3P006 Patient

"In this moment, yes he's all right, but it's about making that clear to the patient, what you're actually asking. Because a lot of the time the questions that they do ask, they are a little bit vague for somebody who also is quite prone to not wanting to tell them that there's something wrong, because he wants to go home…."1F009 Family

"And males as well, I found that it's actually like younger males that are disengaged a bit more than anybody else…….. There's a lack of understanding of what [PWQ] is for and why it's there, and I think we probably stay away sometimes from explaining the reasoning behind things and justification for it, and I think we also don't want to scare people." 1S013 CCO lead

Research questions 7[6]: What are the (potential or) realised unintended consequences?

While the majority of patients were able or encouraged to engage with MR, we observed, and both staff and patients and family reported, barriers for some groups in how they were engaged in MR. Those most in need may, in fact, be least able to access MR. For example, young people without guardian presence, older adults, those with cognitive impairments, poor literacy, others from racially minoritised backgrounds, those for whom language is a barrier, disabled people and lower socioeconomic groups who may lack access to digital devices. However, these were not limited to those with protected characteristics and also included isolated individuals and those who are acutely unwell or supporting a loved one in critical condition.

"So my husband comes to take over from me, so if he wanted to talk about [need to escalate] I think language barrier would have prevented him from doing so." 2F008 Family member

This is poignantly illustrated by a case involving a deaf male patient with limited English proficiency and without the support of family or friends. To conduct the interview, a British Sign Language Interpreter was accessed via LanguageLine® with some effort by the researcher. However, the participant himself reported that it could be difficult to access this service when needed for getting his basic needs met. He was not previously aware of MR and nor was he asked the PWQ. When asked by the researcher what he would do if he had a concern about worsening in his condition, he expressed via the interpreter:

[6] Draws on data from interviews and observations.

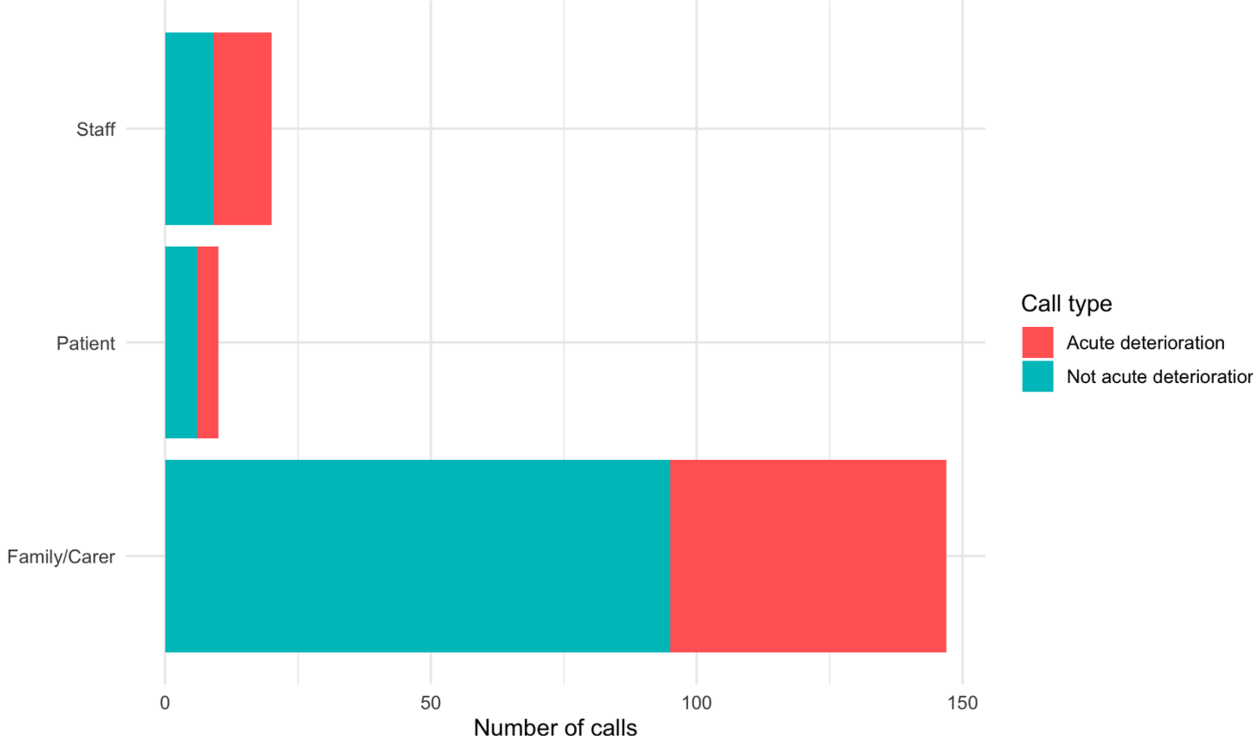
"I would probably leave it - I don't know what I would do if I was feeling worse. I can't use the phone because of hearing difficulty. With an interpreter I could....It's difficult [to request, however], I waited all morning to see someone. I have to be really patient." 3P004

Research question 8[7]: Who activates critical care service outreach teams under Martha's Rule and how frequently is it used?

Analysis of NHS England metric data was performed to answer this research question as well as question 9. Please note, figures presented in this section should be interpreted with caution as we found inconsistencies in the data entry from each site, which may have resulted in inaccuracies. The data provided here are intended for a general overview rather than definitive figures. In addition, CCO staff, during observations and interviews, reported that it was not always known whether a staff call was prompted by a MR concern, thus these could not be recorded as such.

Consistent with the national picture (NHS England Statistics, 2026), NHS England metrics for our three sites highlighted that family members were by far the most frequent users of the helpline, as exhibited in Figure 2.

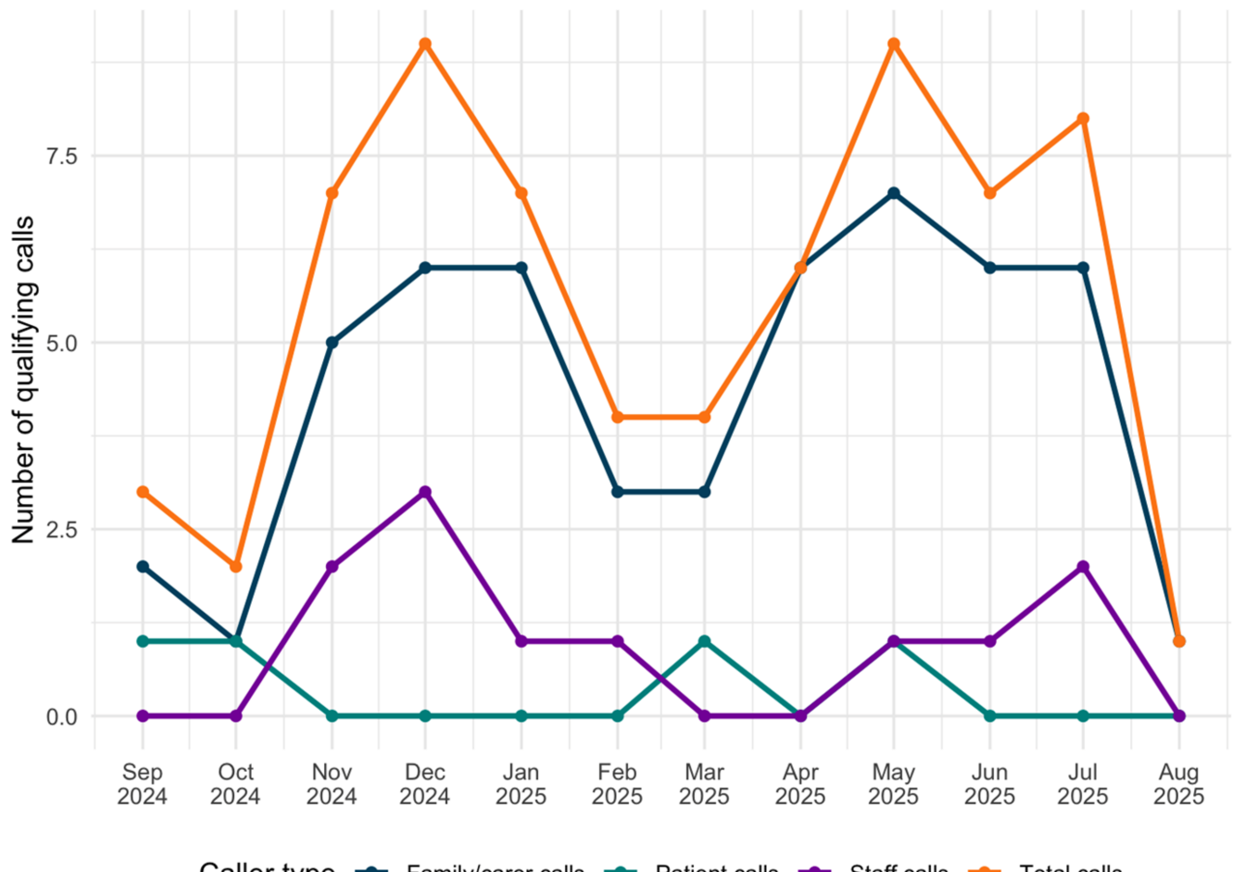
Figure 2. Number of calls per caller type across all three sites over Sept 2024-Aug 2025



Moreover, calls per month were relatively low, with total number of all 'qualifying' calls across all three of our sites between two calls and nine calls per month, as shown in Figure 3. NHS England provided guidance to sites, defining 'Qualifying' calls for the purpose of these metrics as those 'calls and/or texts related to acute deterioration and therefore required a review'.

[7] Draws on NHS England metric data provided by sites

Figure 3. Qualifying calls by call type



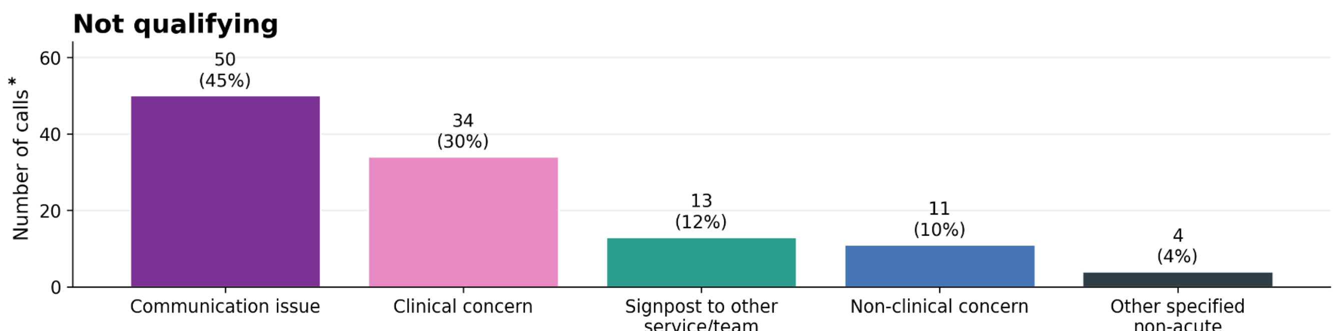
Research question 9[8]: What do patients and family members report to critical care outreach teams?

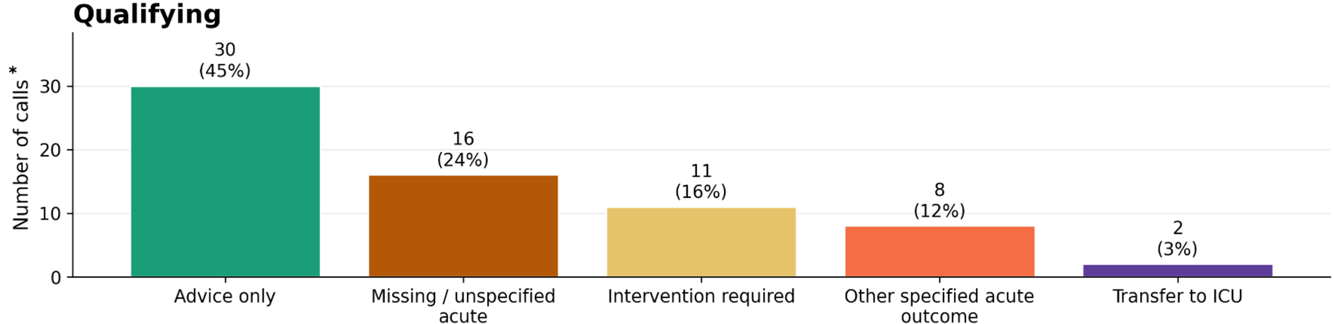
There was resounding support for the escalation helpline, with many patients and most family members recruited from wards reporting that they would have the confidence to escalate their concerns using the MR helpline if needed. There were exceptions to this, however, with many participants expressing concern that those from minoritised backgrounds may find it difficult to access such services to raise concerns, as presented under Research Question 7.

There was a wide range of reasons reported for escalating to the CCOTs both in the experiences of patients and family who accessed the service, as well as from NHS England metrics as shown in Figure 4. These included a range of clinical concerns including about safety or medication errors, communications issues, relationships breakdown between ward staff and patients and their families, delays in transfer, concerns about acute deterioration and those requiring clinical intervention. As previously noted, NHS England defined 'Qualifying' calls for these metrics as those 'calls and/or texts related to acute deterioration and therefore required a review'. The majority of those calls that were not directly linked to deterioration were related to a communication issue. Of the qualifying calls, the caller was most often provided with advice, and only 16% of these cases required clinical intervention.

[8] Draws on NHS England metric data provided by sites and interview data

Figure 4. Total calls across sites by qualifying status and outcome**





**Percentages are within-group; Contains some missing data, particularly in non-qualifying calls*
*** NHS England guidance to sites defined the 'Qualifying' calls as those calls and/or texts related to acute deterioration and therefore required a review*

These figures are reflected in the interviews with participants who made calls to the helpline to date, all of whom were family members supporting patients in the sites. Of these 15 family callers to the helpline, five had accessed the CCOT review service on multiple occasions.

A quote from a family member supporting a patient illustrates that several of these reasons can contribute to their decision to contact the CCOT, including delayed care, communication breakdown and not feeling heard, as well as concern about deterioration. Importantly, it highlights a case in which a patient signals to the ward medical team that they might be deteriorating; this appears dismissed. Such an example illustrates the type of 'safety netting' for patients and family that MR was intended to provide. Experiences of the response service itself are covered under research question 11.

"{Patient/loved one] knows his body, and he kept saying, "I'm not right, something is not right."

……

"[Doctors] come, eventually they come, and then they say, "Well your obs are okay," they just don't listen to what you're telling them if your obs are okay, it doesn't mean you're right, you're now the same as other people. And that's the whole issue about it, that they didn't actually listen, to what they thought was right, was wrong." 3F007 Family member

Research question 10[9]. Does the daily structured approach to obtaining information on a patient's condition trigger escalation by staff?

Whilst some participants, particularly staff, reported utility in the PWQ triggering and being used to support escalation to medical teams, there was limited evidence to show this occurred and was embedded in practice. Towards the end of the observations (in September 2025) we started to observe

[9] Draws on data from observations

the MR response or score being communicated during clinical meetings such as handovers and patient safety huddles. However, this information was not yet observed to be filtering through in referrals or escalations to the CCO teams.

Research question 11[10]. How do patients experience escalating for critical care outreach team review?

Many callers to the MR helpline reported that their concerns were taken seriously and validated, whilst gaining an advocate in the CCO staff to find resolution in relationship breakdowns with medical or ward staff.

"I feel like I have someone on my side. I feel like I've got someone to call because being in here is stressful enough that you need someone who listens to you. ….. And every time I ask for something, it gets delivered, it gets done. So that's why I've got them on speed dial." 2F010 Family member

One caller reported that the CCO review had saved her mother's life, and like others would recommend the service.

"It saved my mum's life. It's amazing. It literally saved her life. The Call 4 Concern, without it being there, it's a strong chance she might have died". 2F013 Family member

Equally, there were some who reported ongoing and compounded feeling of remaining unheard, and one case in which a potential failure to recognise the critical nature of the condition by the CCO staff review resulted in further deterioration and delayed transfer to intensive care unit.

"Unfortunately, they just then totally failed to diagnose the real problem." 3F006 Family member

Whilst some callers reported that they received communication about subsequent actions and/or provision of continuing care, others expressed uncertainty about CCO involvement in any outcomes, emphasising lack of communication about actions and continuing care, which could compound their uncertainty and distress.

"And [CCO staff] never got back to me, because we ended up on ICU, we ended up with all the other things in the middle, and then we've come back down here, and then contacted Martha's Rule again….So where do I go from this point then, is it ring Martha's Rule again and then them not turn up? And then what do you do from that point? It's really, really hard to deal with this situation, things going wrong, you think you've found something that potentially can kind of have a little bit more clout than you feel you've got in that moment." 1F009 Family member

Finally, although there seemed to be a great deal of the appreciation for the service amongst the many who had benefitted in some way from the service, some patients and family expressed conflicted feelings about the need for such a service, challenging why their concerns were not addressed previously by ward staff and medical teams. Additionally, a few questioned whether a review provided by a CCO member is truly 'independent' given their visibility on the wards interacting with ward staff, with whom there may have been a relationship breakdown, for example. Some also expressed uncertainty about what to expect (who will answer their call, what the review process will involve, etc.), and concerns about privacy when calling from hospital ward and apprehension based on past experience of escalating concerns.

6. Concluding thoughts & implications for policy and practice

Interim learning from the evaluation demonstrates that MR has been prioritised for implementation across the three sites participating in the evaluation. However, as anticipated in any rollout of a complex intervention particularly of this scale, there are observed challenges to what may initially appear a relatively straight forward set of directives (MR1-3 as summarised in the background section).

[10] Draws on interview data

If it is to serve its intended function of amplifying the voice of patients/families and their role in the management of deterioration, changes to culture, job roles, ways of working and current training protocols may be required but are likely to be much slower to be realised than the current implementation timeframes have allowed.

As momentum continues in phase two of the rollout to a larger number of sites across England, it is essential to distil these key learnings into actionable implications for policy and practice. The following table summarises nine critical insights from our evaluation with accompanying implications for policy makers, commissioners, acute provider trusts and frontline staff, alike.

Table 3. Key learning and implications

	Key learning points	**Implications for policy and practice**
1	To date, one in three people (public, patient and family) are aware of Martha's Rule, and some minoritised groups face additional barriers to understanding.	To improve awareness amongst all people, further development of comprehensive communication strategies, with targeted and culturally sensitive communication delivered in a variety of formats and local and national modes (not just via mainstream news), and a wide-reaching campaign, may be needed.
2	Patients, families, and staff value MR for its ability to amplify their voices, facilitate open communication, promote collaborative care and improve escalation pathway between ward and CCOTs.	To further enhance patient-centred care and collaboration in acute settings, healthcare organizations should prioritise implementing a structured approach to obtaining wellness information from patients and family as a core component of their quality improvement initiatives.
3	Patients and families lack clear information about the purpose of the structured wellness question and its role in their care.	The structured wellness question requires framing for patients and family to properly understand its purpose and how it is used in identifying deterioration to ensure the accuracy of their response.
4	There is variation in the way in which the wellness question is being operationalised, with a shift to informal ways of asking and inconsistencies in recording patient and family voice.	The structured approach to obtaining information from patients and family about their condition should be elicited in a consistent manner, and their direct response accurately recorded.
5	Awareness appears limited amongst some staff groups, particularly medical and specialist teams and transient staff.	Increasing knowledge of MR and its purpose is necessary amongst all staff groups, particularly the medical and transient workforce, so all staff are aware of and embrace MR and actively use the structured question to aid the identification, monitoring and escalating of deterioration.
6	Callers to the helpline are seeking clearer information about ongoing care and support after escalating concerns.	To improve patient experience, those teams responding to calls should provide direct, clear and timely communication to patients and families about what is being done in response to their call and ongoing support arrangements, 'closing the loop'.
7	There may be barriers for some groups - those most in need may be least able to access MR; these are not limited to those with protected characteristics.	To ensure equitable access to MR, healthcare organizations should identify and address potential barriers that may disproportionately affect the engagement of vulnerable populations, including those with complex needs or isolated individuals.
8	Not all trusts/wards/teams are 'equal' - differences in responding team (CCO) and ward cultures (and priorities), as well as staff attitudes and delivery models, can influence the adoption of	To ensure successful implementation of MR and optimal stakeholder engagement, healthcare organisations should prioritise adapting implementation strategies and delivery models for different contexts and patient groups.

	MR and ultimately, patient, family and staff involvement in the identification of deterioration.	
9	Implementation has placed additional demands on CCO staff, who are routinely tasked with managing escalations of deteriorating patients. This has raised concerns about responding to general concerns via the helpline leading to emotional burden, delayed responses and potential compromises in care for other critically ill patients.	To ensure sustainable implementation and protect the well-being of CCOT staff, trusts should consider investing in targeted support including resource allocation either to existing CCOTs or alternate independent responding teams (see 8 above), as well as training in managing non-acute concerns, and clear triage protocols, ensuring that the responding team is not overburdened and minimising disruption to critical care response.

7. Next steps for research, dissemination and impact

Prior to submitting our full report in Summer 2026, we will complete final analysis and conceptual synthesis of the findings and collect any final data to address any gaps as these emerge in this iterative process. Alongside national learning on implementation, learning from the formative evaluation aims to also support the wider rollout; for example, the findings have been fed back at iterative stages to policy makers in Feb 2025, Nov 2025 and March 2026 and were used to inform the NHS England Core Standards published in March 2026. Furthermore, it has supported the development of a protocol for a large-scale mixed methods summative evaluation. In addition to producing a set of academic publications and conference abstracts, we are currently planning a number of other dissemination activities, including video summaries of learning for various audiences (policy, academic and lay groups).

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Appendix 1. Demographic characteristics of interview participants

Staff Participant Characteristics n=56

	Frequency (n)	Percentage (%)
Sex registered at birth		
Female	9	83.9
Male	47	16.1
Ethnicity		
Asian Indian/Pakistani/British Indian/Pakistani/Bangladeshi	9	16.1
Black Caribbean/black British/black other	3	5.4
Other	1	1.8
White English/Welsh/Scottish/Northern Irish/British	40	71.4
White Irish	1	1.8
White other	2	3.6
Full or part time		
Part time	10	17.9
Full time	46	82.1
Duration in role		
Under 1 year	9	16.1
1-5 years	33	58.9
6-10 years	6	10.7
Over 10 years	6	10.7
Not asked/unknown	2	3.6
Role in relation to implementation		
CCO staff	12	21.4
Clinical lead	2	3.6
Frontline staff	18	32.1
Implementation team member	4	7.1
Operational manager	3	5.4
Organisational manager	7	12.5
Other	1	1.8
Ward manager	9	16.1

Patient and Family Participant Characteristics n=59 (15 of whom contacted the MR helpline service)

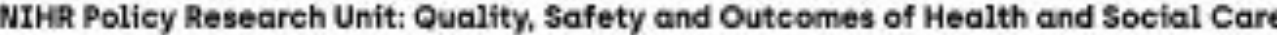
	Frequency (n)	Percentage (%)
Sex registered at birth		
Female	38	64.4
Male	21	35.6
Gender identity		
Non-binary/trans man/woman/questioning	0	0
Cisgender	59	100
Participant type		
Carer	1	1.7
Parent	13	22.0
Patient	26	44.1
Relative	19	32.2
Age		
18-24	1	1.7
25-34	9	15.3
35-44	17	28.8
45-54	15	25.4
55-64	11	18.6
65+	6	10.2
Ethnicity		
Asian Chinese/British Chinese	1	1.7

Asian Indian/Pakistani/British Indian/Pakistani/Bangladeshi	13	22.0
Black Caribbean/black British/black other	4	6.8
Mixed background	2	3.4
Other	1	1.7
White English/Welsh/Scottish/Northern Irish/British	32	54.2
White Irish	1	1.7
White other	5	8.5
Faith		
Agnostic	23	39.0
Christian (including all Christian denominations)	20	33.9
Hindu	1	1.7
Jewish	1	1.7
Muslim	11	18.6
Other	1	1.7
Prefer not to say	1	1.7
Missing data	1	1.7
Sexual orientation		
Heterosexual	58	98.3
Missing data	1	1.7
Highest educational or professional qualification		
A-level or equivalent	4	6.8
Bachelors Degree or equivalent	20	33.9
GCSE/O-Level/CSE	12	20.3
Masters/PhD or equivalent	12	20.3
No formal qualifications	3	5.1
Vocational qualifications	7	11.9
Missing data	1	1.7
Employment status		
Carer	5	8.5
Full time student	1	1.7
Have a paid job – Full-time (30+ hrs per wk)	18	30.5
Have a paid job – part-time (8-29 hrs per wk)	7	11.9
Have paid job – part-time (under 8 hrs per wk)	1	1.7
Not in paid work due to long term illness or disability	6	10.2
Not in paid work-taking care of home	4	6.8
Not in paid work for other reasons	4	6.8
Retired	5	8.5
Self-employed	6	10.2
Voluntary worker	2	3.4
Annual household income		
In receipt of universal credit	7	11.9
Less than £10,000	3	5.1
£10,000-20,000	5	8.5
£20,001-30,000	5	8.5
£30,001-40,000	3	5.1
£40,001-50,000	6	10.2
£50,001-60,000	1	1.7
£60,001-70,000	3	5.1
More than £70,000	13	22.0
Don't know	5	8.5
Prefer not to say	8	13.6
Disability		
Yes	11	18.6
No	48	81.4

Appendix 2. Demographic characteristics of survey respondents

Survey Respondent Characteristics n=2047

	Frequency (n)	Percentage (%)
Sex registered at birth		
Female	1099	53.7%
Male	948	46.3%
Gender identity		
Cisgender man	866	44.1%
Cisgender woman	891	45.4%
Other	103	5.2%
Don't know	26	1.3%
Prefer not to answer	77	3.9%
Age		
18-24	209	10.2%
25-34	388	19.0%
35-44	385	18.8%
45-54	377	18.4%
55+	688	33.6%
Ethnicity		
White	1538	78.1%
Mixed	78	4.0%
Asian/Asian British	180	9.1%
Black/Black British	101	5.1%
Any other ethnic group	32	1.6%
Prefer not to say	36	1.8%
Not sure	4	0.2%
Employment status		
Working full time	938	45.8%
Working part time	274	13.4%
Full time student	87	4.3%
Retired	425	20.8%
Unemployed	114	5.6%
Not working/ other	209	10.2%
Annual household income		
Less than £10,000	101	4.9%
£10,000-19,999	181	8.8%
£20,000-29,999	218	10.6%
£30,000-39,999	212	10.4%
£40,000-49,999	159	7.8%
£50,000-59,999	147	7.2%
£60,000-69,999	98	4.8%
£70,000 or more	454	22.2%
Don't know	116	5.7%
Prefer not to answer	361	17.6%
Region		
English region 1	1016	49.6%
English region 2	1031	50.4%



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