

Increasing staff time for patient facing care on an inpatient geriatric unit through modification of multidisciplinary board rounds: a quality improvement project

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ABSTRACT

Background NHS staff recruitment and retention have failed to keep pace with service demands and workforce burn-out is of significant concern. This quality improvement project (QIP) aimed to increase staff time for patient facing care through reducing duplication of hospital board rounds within a 36-bedded NHS inpatient geriatric ward.

Intervention Thirty-minute board rounds were reduced from twice daily (Monday–Friday) at 08:30 hours and midday to once daily at midday with the aim of freeing up staff time for patient care. A multidisciplinary team (MDT) safety briefing at 08:30 hours lasting 5–10 min was implemented to enable review of shift pressures and identification of patients who are unwell, newly admitted or due for discharge. Safety briefing format was amended to further support staff prioritisation.

Methods This QIP was underpinned by the model for improvement, using Plan-Do-Study-Act cycles. Data were collected through a staff questionnaire alongside calculation of staff time spent at board rounds and safety huddles. Staff verbal feedback and questionnaire results were also used to improve and modify process'. Patient discharge data were collated via trust metrics as a balancing measure.

Results Through board round modification, 25 hours of MDT time was saved each week, with all responding staff reporting increased time for patient facing care following QIP implementation. >85% of questionnaire respondents agreed that board round changes resulted in improvement. Balancing measures collected as part of the project also revealed an increase in weekly ward discharges from an average of 15.75–17.5 confirming no negative impact on patient flow following board round amendments.

Conclusion While significant staffing shortages continue, local innovations focused on staff time may have the potential to support effective use of limited resources.

PROBLEM DESCRIPTION

In 2022, there were 94 000 vacant full time National Health Service (NHS) posts across disciplines,¹ demonstrating a rise of over 10 000 vacancies from 2020² and a picture of increasing staffing restraints. Medical teams report significant roster gaps³ with

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Although board rounds are widely used in the NHS, there is a paucity in literature around this subject, however, these meetings clearly provide opportunities for discharge planning and multidisciplinary team (MDT) working.

WHAT THIS STUDY ADDS

⇒ This study aims to add to a small publication base around use of hospital board rounds and adds further detail around ward safety briefing processes.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This quality improvement project demonstrates that MDT time can be released for patient facing care through modifications of local board round process' without detrimental impact to hospital flow within an inpatient geriatric setting.

large numbers of advertised consultant posts unfilled,⁴ while numbers of nursing staff leaving the profession increased with an estimated 39 000 nursing vacancies alone, further exacerbating an already challenging climate.⁵ Nursing staffing shortages have been linked with reduced patient satisfaction in hospital care⁶ and patient harm.⁷ Quantifying nursing requirements is challenging and variable by setting⁸; however, evidence shows that increased harm occurs when nurses care for more than eight patients.⁹ Nurses within our ward typically care for nine patients each, a figure in keeping with geriatric wards nationally.¹⁰

Hospital board rounds are multidisciplinary meetings held on hospital wards providing an opportunity to summarise the admission reason, medical status, treatment plan, functional baseline, home setup, current functional level and potential discharge date for every inpatient.¹¹ Board rounds should



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provide opportunities to review outstanding tasks and include focus on addressing care delays and discharge plans,^{12 13} they are completed away from patients, often around a screen displaying patient names and bed locations.¹⁴ Within our clinical area—a geriatric medical inpatient ward within a large NHS Trust in the Southwest of England, board rounds are attended by nurses, doctors, physiotherapy, occupational therapy and the discharge team, with our 36 medical inpatients discussed rapidly over 30 min. There is no standard recommendation locally for board round frequency, however, generally within our local inpatient geriatric wards, board rounds traditionally occur twice daily with a local focus on patient discharge and hospital flow.

With a shortage of staffing, creative solutions for effective utilisation of staff time were required and several ideas to promote effective local staff time utilisation were considered. Board round modifications were chosen to support the project aim of increasing staff time for patient facing care. Within our ward, board rounds ran between 08:30 and 09:00 hours and were repeated at midday for a further 30 min. With an average patient length of stay (LOS) of 10 days, limited patient movement between board rounds and repeated discussion were noted.

AVAILABLE KNOWLEDGE

Board rounds

At the time of writing, limited research on the efficacy of board rounds was located despite wide use and staff-intensive requirements.¹⁵ Published quality improvement project (QIP) reports suggest that board round modification can decrease LOS¹³ as can board round implementation.^{16 17} Implementation of junior doctor champions focusing on patient journey at board rounds increased staff engagement¹³ while within a palliative care ward, board round implementation was positively evaluated by staff.¹⁸ However, while reporting promising outcomes, these QIP reports included insufficient detail to enable critique or local replication.

The National Institute for Health and Care Excellence suggests board round use to reduce LOS; however, this recommendation is based on studies into multidisciplinary team (MDT) working and ward rounds (ward rounds are the process of daily medical review for all inpatients) rather than on the efficacy of board rounds as an intervention.¹⁹ The lack of evidence around the efficacy and outcomes of board rounds specifically for patients, staff and organisations provides an opportunity to explore board round modifications.

Board round frequency

Morning board rounds with senior presence, described as registrar or above,¹² have historically been recommended¹⁹; however, board round frequency appears variable between areas. Within mental health settings, board rounds occur on weekdays when managing staff are present.²⁰ While in the emergency department (ED)

2 hourly board rounds were supported by over 50% of staff,²¹ however, ED settings experience rapid patient turnover and increased board round frequency may not be as beneficial in settings without such rapid patient flow. The ambition to achieve one-third of hospital discharges in the morning to support hospital flow is noted, with recognition that high inpatient capacity contributes to ED delays^{12 22} which in turn results in increased risk of patient mortality.²³ Guidance calls for MDT handover of outstanding actions following ward round,¹² resulting in a need to meet as an MDT later in the day; indeed, moving board rounds later in the day may be beneficial in enabling medical plans to be formulated and then shared.¹³ While calls for MDT handover following ward round may be met by moving board round to later in the day, this requires consideration to mitigate adverse impact on early MDT communication, patient care or patient flow.

Safety briefings

Safety briefings, also referred to as huddles, originated within high-risk industries before more recent healthcare adaptation.²⁴ They are held at the beginning of the day^{25 26} and are ‘a brief multidisciplinary daily meeting held to discuss threats to patient safety and actions to mitigate risk’ Lamming²⁷, (p1), usually lasting under 10 min.²⁸

Huddles are established and well evidenced in perioperative settings, using the World Health Organisation (WHO) surgical checklist²⁹; their efficacy is less well-established outside of perioperative settings. Huddles have been reported as potentially beneficial to MDT communication and teamworking in hospital inpatient wards.^{30–32} One QIP on a geriatric inpatient ward reported increased speed of discharge summary writing after focused discharge discussions within huddles³³ which may support timely discharge. High-quality huddles may reduce LOS^{24 34} and potentially reduce readmission rates²⁴; however, evidence for this was of low quality.²⁴ Safety briefings/huddles have been seen as a method of improving safety²⁸; however, the current evidence base is not established enough, or of sufficient quality and rigour to make firm patient safety conclusions outside of perioperative areas.²⁴

Safety briefing formats

Huddles are diverse, and definitive guidance around inclusions within wards has not been identified.^{24 31} Lamming *et al*²⁷ suggest that huddles should include patient safety information including falls, infections, pressure damage and venous thromboembolism. While within a radiological environment Donnelly *et al*³⁵ focused on goals for the day, length of time since last safety issue, staffing and relevant information. It is also argued that huddles should provide opportunity to celebrate success, share announcements, review safety issues for the past 24 hours and focus on potential issues for the day ahead.²⁸ There is no identified consensus regarding safety briefing tools outside of perioperative settings; therefore, safety briefing

replication is not possible, and quality and efficacy are likely to be variable.³¹

RATIONALE

Despite the lack of evidence for board rounds, the importance of MDT working for older patients with multiple comorbidities who require a person-centred, multifaceted approach alongside complex discharge planning cannot be underestimated.^{36 37} Poor MDT working has the potential to result in patient harm and increased LOS³⁸; consequently, maintaining effective MDT working and communication is of paramount importance. While the impact of hospital inpatient board rounds or huddles on patient or MDT outcomes are not fully established, it presents opportunity to come together as a team and discuss patient care. Use of the board round format at midday enables increased morning time for ward round completion, ensuring that up-to-date medical information can be provided at midday.¹² While there is no comprehensive evidence for the efficacy of ward-based safety briefing, its implementation is suggested.²⁸ Replacing a board round with a safety briefing maintains a point of MDT communication while saving time which could be utilised for patient facing care.

SPECIFIC AIMS

This QIP aimed to increase multidisciplinary time for patient care on a geriatric ward through the chosen change idea of board round modification and safety briefing implementation.

While the primary goal was to increase staff time within our ward for patient facing care, it was imperative that this did not adversely impact local hospital flow; therefore, ward discharges were reviewed as a balancing measure.

INTERVENTIONS

Plan-Do-Study-Act (PDSA) cycles were used to implement and evaluate changes made as part of this project. Key stakeholders were identified and approached about potential board round change ideas, this included consultant geriatricians, the ward manager and junior ward sisters, the therapy teams and the discharge team.

Discussions and feedback were sought from the MDT and changes were carefully considered before implementation. Each PDSA cycle will now be discussed individually, a visual representation of the PDSA timeline is presented in [figure 1](#).

PDSA cycle 1

The initial PDSA cycle removed the 08:30 hours 30 min board round and instead implemented a 5–10 min 08:30 hours MDT safety briefing. This was completed through Monday–Friday as board rounds do not routinely run within our clinical area over weekends when senior staff are absent. Safety briefing was held around an interactive patient whiteboard displaying patient names and bed locations. The new safety briefing format was based on suggestions from a consultant geriatrician, this included introductions and a staffing update, transfers in/out of the ward, urgent input required, discharges, drug errors and deaths, high National Early Warning Score/unwell patients and patient falls. This format assisted the team in prioritising ward round reviews.¹² Team discussions at the end of safety briefings and board rounds were used to provide immediate feedback to inform the change process.³⁹ The 30 min midday board round continued in its usual place (around the interactive patient whiteboard at the ward entrance) during this period with its format unchanged.

PDSA cycle 2

Following implementation of the 08:30 hours safety briefing, verbal feedback was given by therapy staff (physiotherapy and occupational therapy) and the discharge co-ordinator that they felt unable to prioritise workloads without an early morning update on new patients and whether they were medically fit for discharge. Patients who are medically fit for discharge are prioritised for therapy review and therapists felt that information around the medical status of new patients was not gleaned from the newly introduced safety briefing. Therapy staff and the discharge facilitator were instead meeting for 30 min after safety briefing to discuss new patients; this discovery prompted amendments to the safety briefing format. A second PDSA cycle was used to amend the safety briefing format to include a summary of new patients provided

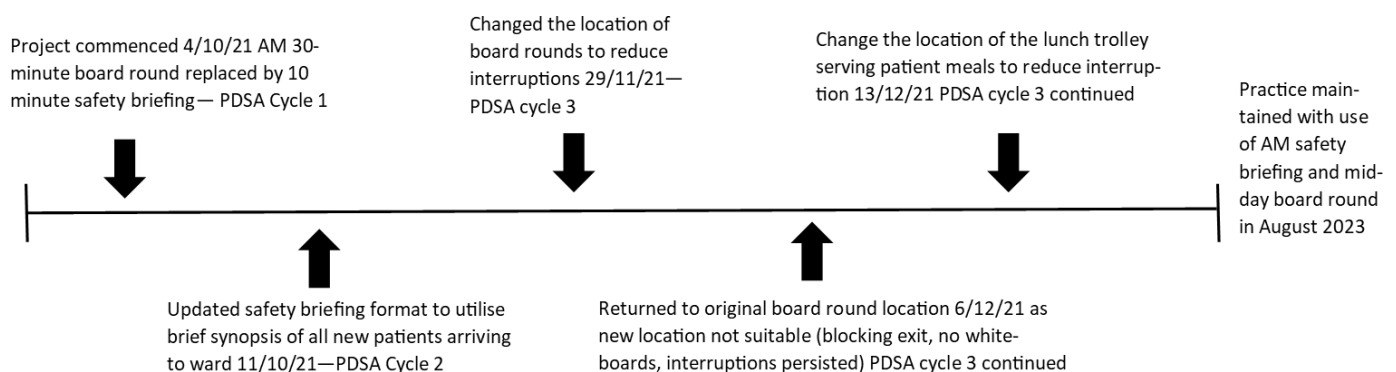


Figure 1 PDSA, Plan-Do-Study-Act.



by the ward nurse in charge, including their background and treatment plan, thus negating the need for a repeat therapy/discharge meeting. Listening to and acting on verbal feedback from the therapy team also helped to reduce resistance to change.⁴⁰ Following the addition of a summary of new patients, verbal feedback was positive, and this amendment negated the need for a repeat therapy team meeting; no further amendments were required to the safety briefing structure.

PDSA cycle 3

Further changes to the board round were informed by a staff questionnaire and focused on ensuring productive board rounds with change sustainability in mind, rather than supporting the primary aim of increasing staff time for patient care. The staff questionnaire was not an intervention itself but sought to obtain further staff feedback to inform potential further interventions to optimise board round processes. Multiple choice answers were available for selection alongside a free text option to anonymously provide feedback about potential ideas. As a result of the questionnaire, we subsequently altered the location of board round (from the wards only interactive whiteboard which sits just inside the ward entrance) with the aim of reducing interruptions as 50% of questionnaire respondents selected that a new board round location would be beneficial, questionnaire text comments were made that the meeting obstructed the ward entrance. Location changes were trialled as part of a third PDSA cycle, the midday board round was moved to a quieter location on the ward away from the main entrance to attempt to reduce interruption; however, without an interactive whiteboard patient flow could not be updated and interruptions continued. Following ward team verbal discussions, the location returned to the whiteboard at the ward entrance. Interruptions were subsequently minimised by changing the location of the trolley serving lunch at 12.15 with its associated noise which interrupted our midday 30 min board round. The board round itself maintained its original structure with brief discussion of each patient's diagnosis, treatment and discharge plan.

STUDY OF INTERVENTIONS AND MEASURES

QIP data collection was collected across PDSA cycles. The primary outcome of staff time saved was calculated using the average number of staff attending board round multiplied by the minutes saved each day and calculated for the week total. This was calculated at baseline and during each PDSA cycle. Time save was also studied through the staff questionnaire which asked staff whether they felt changes had affected their time for patient care as it was imperative to establish that process changes were not resulting in unintended staff process inefficiencies elsewhere and that time saved from changes was contributing to increasing staff time for patient care.

Balancing measures were considered as change has the possibility to cause wider adverse safety effects^{41 42}; this

included studying numerical information on discharges, including morning versus afternoon discharge which were obtained via the trust statistics and informatics team. There was some local concern that board round changes may adversely impact discharge rates; this was a particular concern from the ward therapy team and therefore its inclusion was a key factor in stakeholder engagement and change management.⁴³

An online questionnaire was distributed following completion of the second PDSA cycle and helped to better understand the impact of changes to staff time and whether changes were positively or negatively perceived. An email was sent to staff who regularly attended board round and contained a link to the questionnaire, all responses were anonymous. The questionnaire included largely closed-ended data which are represented in percentages, comments sections were included within the questionnaire to obtain suggestions and ideas to improve the local board round and safety briefing process as part of the third PDSA cycle.

RESULTS

Primary outcome: time saved for patient care

In the weeks before QIP implementation an average of 15 staff members were attending twice daily board rounds resulting in 15 hours daily or 75 hours weekly spent in board rounds between the MDT (based on Monday–Friday board rounds within our area). The time saved was based on use of a generous 10 min safety briefing; in practice safety briefing generally lasts 4–5 min, however, this can be variable, and caution is taken not to overestimate the time saved. Following the first PDSA cycle, with therapy and discharge staff still meeting daily for 30 min in addition to the new 10 min safety briefing, a total of 17.5 hours of MDT time per week had been released for patient facing care. Following further amendments to the safety briefing structure made as part of the second PDSA cycle which negated the need for further therapy/discharge meetings, the weekly saving of MDT time was 25 hours. This 25-hour weekly time saving is an important consideration, seeing as every moment saved from reducing meetings can potentially be spent instead on patient facing care which was the primary QIP aim. See [figure 2](#) below for an outline of the time saved from board round modifications within each PDSA cycle.

Twenty-two staff members who regularly attend board round were invited to participate in the email

	Accumulative staff time spent in MDT board rounds/safety briefing:	Time saved:
Pre intervention:	75 hours per week	N/A
PDSA Cycle 1:	60 hours per week	15 hours
PDSA Cycle 2:	50 hours per week	25 hours
PDSA Cycle 3:	50 hours per week	25 hours

Figure 2 MDT, multidisciplinary team; PDSA, Plan-Do-Study-Act.

questionnaire as they have relevant experience to inform this QIP, 14 completed this. The questionnaire purpose was to obtain staff feedback and to understand whether they felt that the changes resulted in improvement and crucially whether the changes to board round/safety briefing had made difference to their time as clinicians for patient care. All staff who answered the question as to whether the new safety briefing/board round format had impacted their time for patient care (n=12, non-responses=2) reported that interventions had increased their time for patient facing care. When asked whether a morning safety briefing and a midday board round worked better than twice daily board rounds over 85% (n=12) of respondent's reported that this was an improvement. The comments section within the questionnaire enabled staff to feedback ideas for further improvements to safety briefing and board round processes. These qualitative results are not presented here but were instead used as prompts to discuss improvements verbally as ward a team and decide on further changes to trial as part of the third PDSA cycle to further optimise board rounds and safety briefings.

Balancing measure: patient discharges

Patient discharges were collected only as balancing measure rather than an outcome measure and did not inform the project's primary aim of releasing staff time for patient facing care. Discharge data were available for the 12 weeks preceding board round changes (July–September 2021) and showed an average of 15.75 discharges per week (both out of hospital and to an outlying unit on site for medically fit patients). While the

17 weeks post QIP changes (October 2021–January 2022) showed an average of 17.5 discharges per week from the unit, resulting in a slightly increased overall discharge rate post QIP, see [figure 3](#) below which displays weekly discharge rates pre and post QIP. The last 2 weeks of recorded discharges post QIP represent the Christmas holiday period where discharges are notoriously slower for those waiting for ongoing care and may explain the reduction in discharges during this period. The destination of transfer from the unit was studied, pre-QIP 64.5% of patients (n=122 out of 189 patients) were discharged out of hospital directly from the ward, post QIP this fell to 53% (n=157 out of 298 patients) with all remaining discharges from the ward being transferred to an outlying unit for medically fit patients to await discharge services, this will be further explored below. The overall percentage of morning discharges did not vary greatly with 35% (n=66 out of 189) of total discharges achieved morning pre-QIP and 36% post-QIP (n=106 out of 298 patients), this is unlikely to be significant.

DISCUSSION

The interventions trialled within this QIP have been successful in achieving the primary aim of increasing multidisciplinary staff time for patient facing care on our geriatric inpatient ward through reducing staff time spent in board rounds by replacing the 08:30 hours board round with an MDT safety briefing. Identifying and meeting with key stakeholders within our area, particularly within the preproject stages, enabled opportunity to outline a joint vision and shared purpose focused on

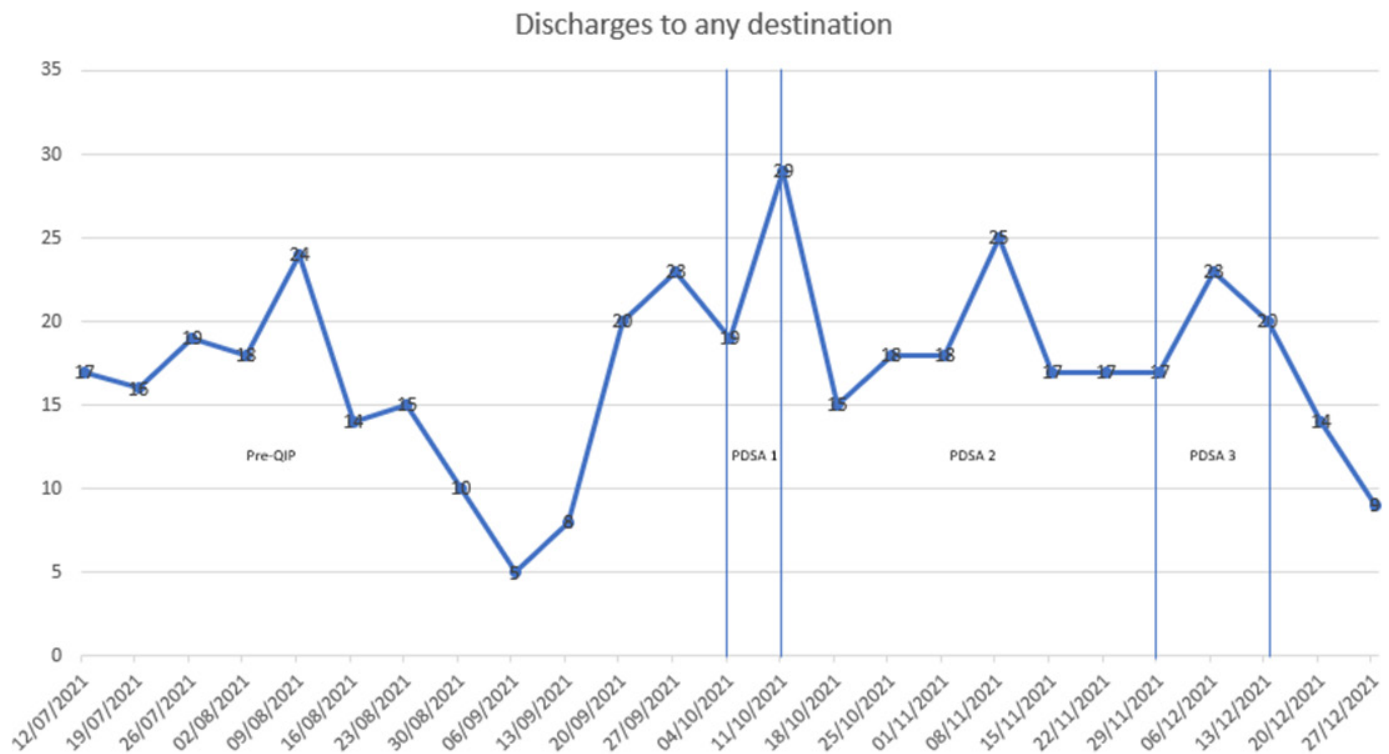


Figure 3



creating opportunities to save much-needed clinical time, recognising that lack of time was a universal issue across professions.^{43 44}

The 25 additional hours of staff time each week represents a possible further step towards effective use of staff time amidst ongoing healthcare staffing issues.⁴⁵ While increasing staff time for patient care does not produce direct financial benefit, there is an indirect financial benefit to the ward through driving productivity by focusing on most effective use of time.⁴⁶ This change was also supported by staff with over 85% finding the new safety briefing/board round combination to be positive which may positively benefit sustaining long-term change.

Amending board rounds, with their apparent focus on hospital flow made no negative impact to overall ward discharges when all destinations were included, with a slight increase in weekly discharges following modification of board rounds. This was an important area for local measurement as much of the initial staff opposition to changes centred around concerns that board round changes would cause inadvertent patient discharge delays; therefore, being able to measure and analyse this was locally significant. On further inspection of discharge destination data, it was noted that there was a reduction in direct discharges home/out of hospital from the ward with more patients being transferred to an outlying unit on the hospital site where medically fit patients await hospital discharge post-QIP. It is noteworthy that the post-QIP period came at a time when COVID-19 vaccinations became mandatory for social care staff resulting in reduced staffing in the social care sector,⁴⁷ subsequently causing delays to social care provision. The same tasks require completion to move to an outlying unit as being discharged out of our hospital, it is therefore argued that the board round changes did not impact our ward's ability to treat and discharge patients, rather that delays to discharge out of hospital were likely contributable to external system factors. Comparison was not made to the previous years' discharge rates as the post-QIP equivalent period 1 year previous represented a local COVID-19 wave and would not have provided comparable circumstances.

Interestingly, when studying trust metrics, it was also noted that inpatient falls on our ward reduced by 17% following commencement of this QIP, from 64 fall pre-QIP to 53 falls post-QIP across the same duration of time. While this does not inform the study's primary aim it is an interesting finding and is therefore presented. Firm cause and effect for this reduction in inpatient falls can of course not be established. However, there is recognition that reduced staffing increases patient harm, including increased inpatient falls,⁸ therefore, interventions to increase staffing levels could, theoretically, be impactful on falls.

SUSTAINING CHANGE

Board round changes remain sustained on the ward following project cessation, with the only change

postproject being a slight time amendment to the morning safety briefing. Sustainability was considered throughout the project which included collaboration for sustained project momentum⁴⁸ and project alignment with local trust values which assisted with supporting a shared project vision.⁴⁹ While change is frequently not sustained due to lack of time, this QIP demonstrated time savings and additional time and resources would be required to revert to previous ways of working.

LIMITATIONS AND STRENGTHS

This QIP was carried out in a geriatric inpatient ward and benefitted this setting; however, its transferability and success in other areas will be impacted by local factors. Data collection around patients not seen by the medical team at midday board pre and post board round/safety briefing changes would have been beneficial in measuring productivity; however, this data was unavailable.

Positively this QIP considered project sustainability throughout, MDT stakeholders were consulted throughout, and changes have been sustained in the longer-term following QIP cessation.

CONCLUSION

This QIP within an inpatient geriatric ward achieved an increase in multidisciplinary time for patient facing care of 25 hours per week through modification of board round processes—without adversely impacting patient discharges and subsequent hospital flow. While significant staffing shortages continue amidst a context of recruitment and retention issues within healthcare,⁵⁰ local innovations focused on use of staff time may have the potential to release clinician time for patient facing care.

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