

Review

UK National Health Service Hospital-Based Falls Prevention Services: Progress, Delays and Challenges

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Academic Editor: William Hung

Submitted: 10 March 2025 Revised: 13 May 2025 Accepted: 27 May 2025 Published: 26 January 2026

Abstract

Falls and high fall risk in older adults are key signals of unmet underlying health issues as well as further fall recurrence and injury. With reference to contemporary National Institute of Health and Care Excellence (NICE) guidance, World Guidelines and National Audit of Inpatient Falls (NAIF) reporting data, this commentary presents an analysis of current progress, opportunity and forward challenge in service implementation and delivery for two focused key UK National Health Service (NHS) hospital-based groups—(1) Hospital inpatients and (2) Accident and Emergency (A&E) attendees—target groups with UK evidence of preventative and health benefit from prompt comprehensive assessment and management. For inpatients, the National Audit of Inpatient Falls (NAIF) is an operational evidence-based hospital service resource delivering and monitoring progress at the NHS national and trust level. For hospital A&E attendees with a fall, the basis for a comparable, consistent, cost-effective NHS falls prevention service design and audit process is demonstrable from UK research evidence, but unresolved challenges in service implementation remain, and a standardised audit system is still lacking. Forward strategies involving clear leadership and audit are proposed.

Keywords: falls prevention; older adults; NHS hospitals; evidence; guidance; service implementation; audit

1. Introduction

The growing cost and challenge for individuals and for the wider health care system of the phenomenon of falls amongst older adults is now recognised worldwide [1], and the subject of published international evidence-based consensus guidelines [2]. The relationship to age is clear, with 30% of people older than 65 and 50% of people older than 80 falling at least once a year.

Falls can cause serious injury. Annual falls-related emergency hospital admissions of 255,000 in England among people aged ≥ 65 years are documented [3], accounting for 4 million hospital bed-days per year in England alone [4].

Falls in older adults resulting in hip fracture are associated with a one-year mortality of 30%, reflecting co-existing health conditions [5].

UK National Health Service (NHS)-based evidence for effective prevention followed by equivalent updated guidance (2004, 2013, 2025) [6] has been in place for almost a quarter of a century, but substantial inconsistency and inadequacy in service delivery [4] has occurred, with resulting loss of benefit both to patients and the system as a whole. From a specific NHS hospital perspective, this commentary aims to (1) re-examine fall prevention strategies for inpatients and Accident and Emergency (A&E) patients; (2) analyse challenges and opportunities for implementing the related NICE guidelines within the NHS, and (3) propose improvements for corresponding NHS fall prevention de-

livery. The supporting evidence consideration for this purpose will focus on NHS-generated findings as distinct from a broader systematic review of falls prevention data.

2. Background—Defining the Service Concept

A simplistic rationale focused solely on resulting injury and its economic consequences is conceptually inadequate but still widespread. Fall occurrence and/or increased fall risk in an older adult has wider adverse implications for health and autonomy (morbidity, disability, hospitalisation, institutionalisation and mortality) [1]. It is itself an established “opportunistic case-finding” signal of underlying need for a rapid systematic diagnostic and multifocal intervention protocol to detect and respond to intrinsic health issues and extrinsic risks prevalent in later life, notably: (i) age-associated diminished physiological reserve capacity; (ii) suboptimal physical fitness; (iii) known stable specific impairment; (iv) undiagnosed unstable systemic illness (including iatrogenesis); and (v) environmental hazards.

Consequently, pivotal requirements of an effective preventative service are: (i) available free and immediate access as indicated to the diagnostically supported capability of the general hospital and (ii) coordinated, localised multiprofessional collaboration and follow-up to an accountable and measurable timescale [7].



3. Evidence and the Potential for Progress

The NHS hospital context is by definition transitional, but it is helpful operationally to consider the evidence within two high fall risk patient settings—(i) inpatient prevention and management and (ii) A&E presentation.

In general, while early valid randomised controlled trials provided necessary definitive evidence in these settings, further UK NHS prospective developmental implementation studies building on this evidence have been essentially absent. In the current Clinical Guideline NG249 evidence base [6]: (i) of 33 cited intervention studies of inpatient prevention only 4 are UK-located of which only one is a definitive randomised controlled study of multifactorial on-site intervention [8]; (ii) of 53 cited studies of community-based prevention 10 are UK-NHS located, but only 4 are A&E-focused and 2 (involving a defined service model) demonstrate significant subsequent fall prevention efficacy [9,10].

While for inpatients, subsequent operational real-world data has emerged from appropriately configured local and national audit protocols, no comparable operational evaluation or audit data has to date been published for the A&E presentation setting.

3.1 Hospital Inpatient Focus

Older adult hospital inpatients have been consistently shown to be an intrinsic maximal falls risk sub-population and a corresponding major prevention challenge. “Screening tools” for overall risk level (as distinct from identification of specific individual risk factors) have repeatedly been found to be ineffective and superfluous for inpatients [11,12].

Conversely, there is valid NHS-based early cluster randomised controlled trial evidence in inpatients for the preventative effectiveness of systematic designated multiple specific risk factor detection and corresponding individualised intervention (in the context of assumed inpatient core diagnosis and management) [8]. Component factors have included (i) basic vision assessment, (ii) cognitive assessment, (iii) lying and standing blood pressure measurement and (iv) medication review, together with (v) environmental review and management—e.g., bed height adjustment, call-bell access and on-site observational enhancement.

Together, for audit and quality improvement purposes, this collective strategy has been designated “FallSafe” and shown in subsequent audit evaluations of inpatient units operating the FallSafe protocol to deliver a 25% reduction in fall rates compared with control units [13]. The related overall cost-effectiveness is apparent in contemporary NICE guideline health economic analysis: “one cost utility analysis found that multifactorial fall prevention dominated (less costly and more effective) usual care in both acute and non-acute hospital settings” [6].

3.2 Hospital A&E-Focus

In the early UK-based randomised controlled intervention studies for cognitively intact community-living adults attending A&E with a fall (including the 38–39% of attendees admitted), 1-year follow-up rate reductions of (i) 36–61% in falls and falls risk, (ii) 39% in hospital admissions and (iii) 68% in total hospital bed days (for example) are demonstrated [9,10]. The potential cost-benefit is therefore considerable.

Along with predictable impairment of gait, strength and balance in these study populations (72–95%), the systematic diagnostic yield of wider (often co-existing) contributory health issues is substantial, including for example: (i) “culprit medication” (53%), (ii) neurological findings, including peripheral neuropathy (17–20%), (iii) cardiovascular findings (such as orthostatic hypotension and carotid sinus hypersensitivity) (17–37%), (iv) visual impairment (27–59%), (v) measured depression (8–18%), and (vi) occasionally undiagnosed malignancy (2%).

Corresponding prompt risk-factor, functional and home-environmental assessment (hazards identified in 26–48%) and intervention with follow-up are also integral to the measured benefit.

Importantly, benefits in wider health and autonomy alongside further falls prevention (e.g., sustained Barthel Index of Activities of Daily Living (ADL) vs. decline in controls) are also documented [9].

Two systematic, internationally based reviews and meta-analyses of multifactorial falls prevention programmes specifically for older adults presenting to emergency departments with a fall have been published. The first reported insufficient evidence to support standardised implementation [14]. But the care systems and interventions delivered were highly variable cross-nationally. The second reported a significant reduction in subsequent fall rates and hospitalisation [15]. The reported efficacy of the above UK-based service-modelled trials [9,10] (included within the eligible studies selected in both reviews) remained robust and compelling within the wider analysis. The potential for progress, therefore, within the NHS is arguably exceptional.

There are no corresponding reported definitive cost-effectiveness studies within the NHS. However, given a stated cost of £901 (\$1216) per day per non-elective NHS bed [16] and for these two trials extrapolating hypothetically a mean annual percentage reduction of 53% in subsequent hospital admission bed days for eligible participants, a potential cost saving of £1.51 million (\$2.04 million) per year to comparable trusts can be derived. Tangible ongoing audit data are nevertheless essential.

3.3 Negative or Uncertain Evidence

Alongside the available hospital-linked positive evidence above [and some positive community strategies in high-risk groups (e.g., [17])], some other UK-based meth-

ods have to date delivered negative or inconclusive findings and are currently to be avoided as part of a forward strategy irrespective of context (hospital or community). Alongside risk level screening for inpatients, these have included: (i) single-factor interventions in isolation, such as cognitive behavioural therapy [18], visual correction [19], (ii) unidisciplinary assessment with non-linked referral [20,21], (iii) primary care-based prospective postal risk screening and intervention [22]. At present there remains also a complete lack of definitive evidence for the place of assistive technology (e.g., individually worn or environmentally positioned monitoring devices) and a risk that widespread marketing may overtake much needed research in each case to determine the scale (if any) of benefit, both overall and in particular contexts and sub-populations of older adults concerned.

4. Evidence-Based Guidance

NICE guidance and updates have been in place for over two decades—2004, 2013 and now April 2025 (NG249) [6]. In keeping with the above evidence, NG249 recommends a “comprehensive falls assessment and management” (1) for all hospital inpatients over 65 and (2) for those over 65 in the community injured as a result of a fall and requiring further medical (or surgical) intervention (i.e., by definition including A&E attendance). The current 14-point coverage for this includes *gait, balance and mobility, and muscle weakness; *osteoporosis risk; *perceived functional ability; *fear of falling; *visual impairments; *hearing impairments; *cognition and/or mood; *neurological examination; *cardiovascular examination (including lying and standing blood pressure); *urinary continence; *foot and footwear condition; *diet, weight loss and fluid intake; *dizziness inquiry—with a Hallpike-Dix manoeuvre if indicated; *structured medication review.

Scottish definitive guidance is also currently scheduled for publication [23]. Internationally, the recently published World Guidelines [2] adopt the same opportunistic case finding strategy. Its recommendations for high-risk groups correspond closely to those within NICE guidance.

5. Driving Progress in Service Delivery, Structure and Accountability

Internationally, the variability of hospital-based approaches to implementation, service structure, service audit and service research remains extremely broad, so that clear investment and measured progress are widely absent or uncertain.

Within the NHS hospital context, however, it is arguably rational and essential locally and nationally to establish, resource and audit a service protocol reflecting the demonstrable effectiveness and cost-effectiveness research data and national guidance currently in place. These point to the need for the falls service to be a defined, specialised

entity with tangible targets for delivery, resource provision and accountability.

To date, however, there remains widespread structural inconsistency and variation in NHS falls service design, resulting in incomplete and/or delayed delivery of the required diagnostic and multidimensional protocol, with resulting failure to achieve and demonstrate benefit and cost-effectiveness (and in some cases closure of existing funded falls prevention services).

5.1 Hospital Inpatient Focus

Consistent, routine monitoring (audit) of agreed evidence-based service data to measure implementation, service performance and progress is essential to achieve sustainability.

Early local audit of the “FallSafe” inpatient model confirmed its effectiveness at the operational level [13], and its core variables have been largely retained as key performance indicators (along with others) in the Healthcare Quality Improvement Partnership (HQIP) funded Royal College of Physicians (RCP) National Audit of Inpatient Falls (NAIF).

Research using NHS trust level prospective local audit has clearly demonstrated the effectiveness and cost-benefit of consistent evidence-based speciality-led inpatient implementation. Richardson *et al.* [24] showed a significant, sustained reduction in (i) total falls, (ii) falls per 1000 bed days, and (iii) harm from falls over a 7-year period when combining the RCP FallSafe care bundles with a supportive observation policy (SOP). The estimated cost savings [(approximately £5.3 million) (\$7.15 million) over a 3-year period] supported the ongoing growth and development of the Trust’s inpatient falls prevention service.

National level audit resources have included: (i) the periodically updated NICE Quality Standard (QS86) [25], and (ii) over the last decade, the National Audit of Inpatient Falls (NAIF) [26]—the latter progressively developed from an ongoing annual national audit to a comprehensive, quarterly, quality improvement resource, accessible to all trusts and individual health care professionals.

The NAIF as a Resource

The NAIF which is funded by the Healthcare Quality Improvement Partnership (HQIP) and run by the Royal College of Physicians, started with biannual snapshot audits, progressing in 2019 to a continuous audit of all inpatients in England and Wales who had sustained a hip fracture as a result of an inpatient fall and in January 2025 expanded to audit all fractures, head injuries or spinal injuries sustained as a result of an inpatient fall.

The first iteration of the audit required data to be collected from consecutive unplanned admissions of patients aged over 65 with a notes audit and spot check to understand whether a multifactorial fall risk assessment and interventions had been undertaken. As data was only collected in two cycles, two years apart, there was little opportunity for

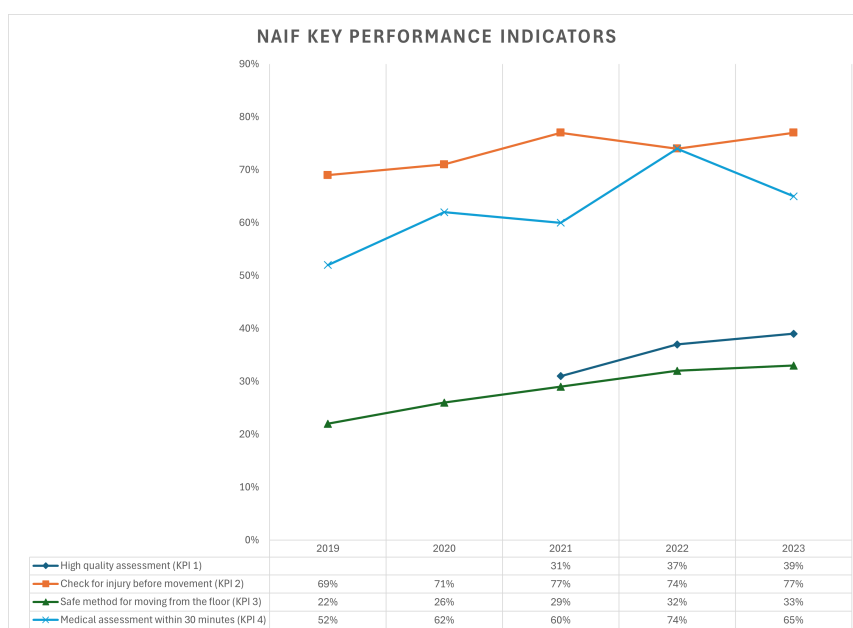


Fig. 1. National Audit of Inpatient Falls (NAIF) key performance indicators 2019–2023. Data from yearly NAIF national reporting was displayed using Microsoft Excel (Version 2506, Microsoft Corporation, Redmond, WA, USA). KPI, key performance indicators.

this data to be used to drive improvement, so from 2019, NAIF moved to a continuous data collection model accessible to any individual health care professional, providing the opportunity to understand performance in real time and detect changes as a result of improvement initiatives.

The decision to audit patients who had sustained a hip fracture as a result of an inpatient fall was made for two reasons: (1) NAIF's sister audit, the National Hip Fracture Database (NHFD) already collects the data needed to identify audit cases; (2) hip fracture is one of the most serious fall-related injuries, 95% of hip fractures being the result of a fall [27]. Hip fracture is associated with significant morbidity and mortality [28], with those sustaining a hip fracture as a hospital inpatient having twice the 30-day mortality compared to those who sustain a hip fracture elsewhere (12.7% vs. 5.8%) [29].

For the continuous audit, data is collected retrospectively from health records to collect evidence of NICE guideline-compliant assessment for fall risk factors prior to the fall that caused the fracture, as well as evidence of post-fall management in line with NICE QS86. Performance on fall prevention and post-fall management is currently presented as four key performance indicators (KPIs):

- (1) High-quality Multifactorial Assessment to optimise Safe Activity (MASA);
- (2) Check for injury before movement from the floor;
- (3) Safe moving and handling method used;
- (4) Medical assessment within 30 minutes of the fall.

A high-quality MASA is defined as evidence that the patient had at least five of the six following assessments: vision, lying/standing blood pressure, delirium, continence, mobility and medication review.

The audit has moved away from the term 'fall risk assessment' recently due to concerns that a focus on terms 'falls' and 'risk' increases unhealthy concern about fall risk in both staff and patients and promotes a strategy of movement avoidance (wrongly seen as the best way to prevent falls). Deconditioning is also a recognised hospital-associated harm [30], and unhelpful language and attitudes towards fall prevention risk may exacerbate this. The 2024 NAIF proposed a change in language and philosophy surrounding fall prevention in inpatient settings, focusing on positive action through multifactorial assessment and intervention to enable older inpatients to be as active as possible while minimising any factors that might cause them to fall [31].

In the five years of data collection (four years for KPI 1), there has been a gradual improvement in national performance in all KPIs as illustrated in Fig. 1.

Since becoming a continuous audit, there has been a deliberate focus on performance in assessment and management processes rather than fall rates. However, it is recommended that trusts collect their own data on falls per 1000 occupied bed days as well as measures to determine the degree of underreporting [32]. This data should be used within the organisation to look for trends over time, be discussed at trust falls steering groups and contribute to the organisational safety management processes [i.e., the Patient Safety Incident Response Framework (PSIRF) in England [33]].

As well as presenting audit data in a yearly state of the nation report, yearly trust report and quarterly updates of KPI performance, NAIF aims to support improvement with a range of resources produced by the audit advisory group and patient panel. There are resources for staff train-

ing, clinical assessment and management, patient education, quality improvement and PSIRF responses. A facilities audit is available for organisations to benchmark their fall policies and processes. Quarterly webinars and biannual engagement events support local teams with understanding audit findings and implementing improvements.

Importantly, in 2017, the NAIF strongly indicated the necessity for every trust to have in place:

(1) At management level, a director-led organisation-wide Patient Safety Group ensures: (a) agreed structured rapid assessment procedures, and (b) robust data and reporting on falls & fractures.

(2) At clinical level, a multi-disciplinary Falls Working Group audits the delivery of “FallSafe”-derived and broader NAIF KPI’s and the NICE Quality Standard (QS 86).

Organisation-level NAIF facilities audit data, collected in 2022, indicate continued progress, with an executive director for falls in place for 87% of participating trusts and a functioning Multidisciplinary Falls Working Group in 86% [32].

5.2 Hospital A&E-Focus

By contrast, in spite of the above NHS-based evidence indicating a somewhat larger clinical and service beneficial impact of intervention in this subcategory, there is currently no widely established comparable falls prevention protocol or audit procedure in place to enable and measure benefit and progress specifically in the A&E-initiated context.

Developing and implementing agreed forward trust-level and national implementation and audit are therefore now needed as a priority. The potential for national audit and record-linked data to generate new research evidence and drive organisational progress is strongly demonstrated in the recent NHFD-linked hip fracture REDucing unwarranted variation in the Delivery of high-qUality hip fraCture services in England and Wales (REDUCE) study [34].

For implementation and delivery, based on the existing evidence, the following are proposed for consideration:

National Level

(1) The current HQIP-funded Falls and Fragility Fractures Audit Programme (FFFAP) comprises three elements—the NHFD, the NAIF and the Fracture Liaison Service Database (FLS-DB). The remit might be expanded to include the audit of falls prevention after A&E presentation—either separately (e.g., a National Audit of Age-Related ED Falls [NAAREF])—or linked to NAIF.

Trust Level

In line with the available NHS service-modelled evidence:

(1) Routine geriatric medical and home hazard comprehensive assessment within 2–3 weeks of the index fall.

There are understandable concerns about geriatric medical and occupational therapist resources. In addition to identifying additional resource from the predicted cost

savings, some mitigation may be provided by (i) delivering primary post-fall assessments via an agreed standard NICE-concordant protocol in every geriatric medicine outpatient clinic, with more complex cases (e.g., tilt-table testing, vestibular assessment) then referred to the specialist falls clinic as needed, and/or (ii) stepwise implementation by priority age group (e.g., over-80 initially).

(2) The trust level multidisciplinary and management Falls Working and Patient Safety Groups in place extend their remit to cover the A&E-initiated component of the falls service.

Based on the research evidence and NAIF developments, key national and local audit criteria might include:

- The above trust groups’ extended agenda is in place.
- Trust audit data collection is fully operational and supported—local and/or NAAREF linked.
- Standardised, manageable A&E-based documentation of agreed basic preliminary limited fall event data.
- Implementation of a timely, comprehensive assessment as in (1).
- Follow-up service contact and fall incidence ascertainment with each patient at least 3 times within 6 months of the index fall.

It might well prove possible to deliver some elements of the above via developed or established seamless collaborative community-linked partnerships, provided (i) that the hospital-based service lead, initiation, continuity and forward accountability are maintained and (ii) all barriers to immediacy of intercommunication, teamwork collaboration, cross-referral and continuity of care are eliminated. Delay avoidance is crucial. Concerns about alternative delivery models have, however, already surfaced [35].

5.3 Further Research

Future research could focus on (1) long-term follow-up of wider health consequences (as well as falls) for A&E older falls patients, (2) further comparative analysis of NAIF implementation across different NHS hospitals, (3) the potential for artificial intelligence (AI) in falls service coordination, delivery and risk prediction and (4) patient surveys on compliance and satisfaction. Maximal use of audit data as a research method for real-world data collection and publication in this field is recommended rather than restrictive reliance on complex, large-scale controlled trials of interdisciplinary implementation.

6. Conclusion

Falling in older adults, a pivotal syndrome within the field of geriatric medicine, is a signal marker of potentially complex underlying health needs requiring comprehensive assessment. NHS hospital inpatients and those presenting with falls to A&E are at intrinsically high risk, and benefit from a coordinated, accountable, collaborative, specialised evidence-based service delivering the comprehensive multidomain assessment and personalised intervention

and follow-up required. For inpatients, audit (NAIF and trust-level) of service delivery points to improvement and cost-effectiveness, both for patients and the health system. For those presenting to A&E, no comparable evidence-based service model or fall prevention audit protocol is yet in place to drive progress, and this needs to be resolved without further delay.

Key Points

- UK NHS-based evidence, national and international guidance for effective fall prevention strategies in hospital A&E attendees and inpatients is in place, but there is still a pressing need for progress in service structure and delivery.
- The National Audit of Inpatient Falls (NAIF) is a driver for progress in safe mobility for older adult inpatients.
- A comparable preventative implementation strategy, structure and audit (local and/or national) for older adults attending A&E after a fall is now needed.

Availability of Data and Materials

All the data of this study are included in this article.

Author Contributions

JW and CS both designed the review, contributed to the literature search and collaborated in manuscript drafting. Both authors contributed to the important editorial changes in the manuscript. Both authors read and approved the final manuscript. Both authors have participated significantly in the work and agreed to be accountable for all aspects of the work.

Ethics Approval and Consent to Participate

Not applicable.

Acknowledgement

Both authors have at different stages been members of NICE Guideline Development Groups (GDGs) on this topic. JW is currently Clinical Lead for the National Audit of Inpatient Falls.

Funding

This research received no external funding.

Conflict of Interest

The authors declare no conflict of interest.

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