

Closing the Gap through Clinical Communities:

The FallSafe project

Final Report for Closing the Gap through Clinical Communities (award holders)

Project Title:

FallSafe

Lead Organisation

Royal College of Physicians London

Partner organisations

South Central Strategic Health Authority

National Patient and Safety Agency

Royal College of Nursing

Action against Medical Accidents

British Geriatrics Society

Lead Clinician(s)

Dr Adam Darowski

Dr Frances Healey

Project Team

Ms Lisa Byrne

Ms Sarah Pollet

Mrs Janet Husk

Steering Group Members

Professor	David	Oliver
Dr	Jonathan	Treml
Ms	Rhona	Buckingham
Dr	Adam	Darowski
Mrs	Janet	Husk
Dr	Susan	Poulton
Dr	Frances	Healey
Ms	Kate	Hudson
Ms	Noeleen	Devaney
Ms	Julie	Windsor
Ms	Nicky	Hayes
Dr	Kevin	Stewart
Mr	Graham	Tanner
Ms	Jill	Phipps
Mr	Carl	Petrokofsky

Acknowledgement

We would like to acknowledge the support of Dr Jonathan Potter in the development of the bid and the initiation of the project

Contents

	Page
Glossary	4
Abstract	5
1: The quality challenge: background knowledge	6
Local problem and context	7
Intended improvement	8
Changes along the way	10
2: Methods	11
The intervention	11
Education and development programme	13
Process and outcome measures	15
Balancing measures	16
3: Results	18
Outcomes	18
Improvements in care delivery process	18
Changes in outcomes	20
Specific setting and continuity of FallSafe leads results	23
Quality and robustness of data	24
Patient's perspective	24
What impact the project had	25
4: Discussion/learning	28
Clinical communities	28
Achievements, challenges and things that did not work out quite as planned	29
Interpretation	32
Summary	33
5: Resources to share	33
6: Plans for sustainability	34
7: Plans for spread	35
Plans for spreading the learning and outputs of our project	35
How we are promoting our innovation and convincing others	39
Advice for someone replicating our work	42
Main challenges for future spread	44
8: Return on investment	44
9: Conclusion	47
Appendices	
FallSafe press release (June 2011)	
British Geriatric Society article (July 2011)	
FallSafe information sheet	
FallSafe care bundle	
FallSafe guidance notes	
FallSafe combined data collection template	
FallSafe newsletters	
• FallSafe leads and external contacts (October 2011)	
• FallSafe steering group (November 2011)	
FallSafe event programme details	
FallSafe London event evaluation form	
Evaluation of FallSafe events	

Glossary

- Care bundle when mentioned in the report relates to the combined FallSafe care bundles unless otherwise specified.
- FallSafe care bundles were a specific measurable set of multifactorial assessments and interventions
- 'Full bundle' - refers to the stage of the FallSafe project when the staggered implementation was complete, and all the process measures were being collected.
- Lying and standing blood pressure is an assessment of whether blood pressure drops significantly when the patient stands (key to identifying a common cause of falls called orthostatic hypotension)
- Multifactorial (or multifaceted) assessment refers to a process of assessing patients for a range of risk factors that can lead to falls, such as impaired mobility, incontinence, cognitive impairment, urine infection etc.
- Multifactorial interventions are changes made to care or treatment that can modify the risk factor or manage it in such a way as to reduce the risk of it leading to falls
- NPSA 'four questions' - a screening tool where any patient answering yes to one or more of the following questions is considered to need more in-depth assessment and intervention - history of falling before admission, history of falls after admission, worries or anxiety about falling, and trying to walk alone although unsteady/unsafe.
- Outcome measures are measures that describe the outcome of a process, for example how many hospital admissions occur after an admission avoidance programme
- Patient Reported Outcome Measures are measures that describe the outcome of a process from the patient perspective, for example how they rate their quality of life after hip replacement
- Plan Do Study Act is a process for introducing changes in practice
- Process measures are measures of the delivery of care, for example how many patients receive screening for swallowing difficulties after a stroke
- STRATIFY - a screening tool which gives values to a range of falls risk factors, translating into 'scores' which indicate patients at low, medium or high risk of falls
- Safety crosses are visual displays on which nurses are encouraged to colour in a square on days when a safety incident, such as a fall, occurs, to give a visual reminder of the frequency of the problem to ward staff.

Abstract

Over 280,000 patient falls are reported from hospitals and mental health (MH) units annually and can cause serious injury, costing approximately £15 million per annum. Research has shown that falls can be reduced by 20-30% through multifactorial assessments and interventions. The aim of these assessments and interventions are to identify and treat underlying reasons for falls such as muscle weakness, cardiovascular problems, dementia, delirium, incontinence and medication. However, national audits have found low levels of implementation of these assessments and interventions in UK hospitals.

The FallSafe project involved educating, inspiring and supporting 17 registered nurses from acute, rehabilitation and mental health wards to lead their local multidisciplinary teams in reliably delivering these assessments and interventions through a care bundle approach. A new component of the care bundle was introduced every six to eight weeks over nine months, and delivery of the full bundle was then sustained for six months. Process measures were collected monthly for the bundle components. Outcomes were assessed by reported falls rates adjusted by the proportion of staff certain that falls had been reported.

The FallSafe project has resulted in substantial improvements in care, including a doubling of patients receiving lying and standing blood pressure assessment, medication review and being asked about fear of falling. Whilst reported falls rates increased by 12%, when under-reporting rates were factored in, we estimated that the project may have delivered around a 25% reduction in falls.

1.1 The quality challenge: background knowledge

Annually over 280,000 patient falls are reported from acute and community hospitals and mental health units in England and Wales (Figure 1) with immediate healthcare costs of approximately £15 million per annum, before care needs after discharge from hospital are factored in.^{1, 2} A proportion of these falls cause serious injury, including almost 1,000 fractured hips. If a patient who is already acutely ill in hospital falls and suffers serious injury, outcomes are often much worse than for people who fall in the community; only one in ten patients who fracture a hip in a hospital fall will regain their previous levels of mobility and three out of ten may die.³ Most hospital fallers are aged over 75 years and have multiple long term and acute illnesses. For these frail older people more minor injuries can be the 'last straw' that compromises their mobility and independence. Even falls without injury can cause anxiety and distress to patients, their families and to staff. Falls in hospital are a common cause of complaints and patient groups, such as Action against Medical Accidents (AvMA), are taking an increasing interest in patient harm, including inpatient falls and injuries.

Figure 1: National Patient Safety Agency (NPSA) reported numbers and severity of falls in England and Wales (Oct 2008-Sept 2009)

Degree of harm	Acute	Mental health	Primary care organisations	Total
No harm	143,591	19,470	24,614	187,675
Low	57,306	15,194	12,047	84,547
Moderate	6,596	1,687	1,785	10,068
Severe	777	124	164	1065
Death	68	7	8	83
Total	208,338	36,482	38,618	283,438

All falls cannot be prevented without unacceptable restrictions to patients' independence, dignity and privacy. However research has shown that falls can be reduced by 20-30% through multifactorial assessments and interventions, which aim to identify and treat underlying reasons for falls.⁴ Given these results were achieved in research projects which provided extensive additional staff and resources, a 25% reduction in falls is considered to be "an ambitious but not unrealistic target" for frontline services.⁵

Components of multifactorial assessment and interventions have differed between studies. The most successful research studies included identifying and acting on the commonest risk factors seen in the hospital population, such as muscle weakness, cardiovascular problems, dementia, delirium, incontinence and medication that increases the risk of falls. Key sources of guidance in the UK that bring together this evidence base are the NPSA *Slips trips and*

¹ National Patient Safety Agency 2007 *Slips trips and falls in hospital* www.nrls.npsa.nhs.uk

² National Patient Safety Agency 2010 *Slips trips and falls in hospital data update* www.nrls.npsa.nhs.uk

³ Murray, G.R., Cameron, I.D., & Cumming, R.G. 2007. The consequences of falls in acute and subacute hospitals in Australia that cause proximal femoral fractures. *Journal of the American Geriatrics Society*, 55, (4) 577-582

⁴ Cameron ID et al. 2010 *Interventions for preventing falls in older people in nursing care facilities and hospitals*. Cochrane Database of Systematic Reviews

⁵ Oliver D, Connelly JB, Victor CR, Shaw FE, Whitehead A, Genc Y, et al. Strategies to prevent falls and fractures in hospitals and care homes and effect of cognitive impairment: systematic review and meta-analyses. *BMJ* 2007;334:82

falls in hospital report from 2007 and the Patient Safety First Campaign's *The 'How to' Guide for: Reducing harm from falls* from 2009.^{1,6}

Through a mix of poor awareness of the evidence base and imperfect implementation, national audits have found worryingly low levels of delivery of these evidence-based assessments and interventions in UK hospitals. Only a minority of patients receive the basic assessments that would identify potentially treatable cardiovascular causes of falling, identify confusion that affects their ability to mobilise safely, or reviews of medication that may be increasing their risk of falls.⁷

Falls prevention therefore presents a very current and real challenge for all inpatient care settings.

1.2 Local problem and context

The South Central Strategic Health Authority (South Central SHA) was a partner organisation throughout this process and this project took place within its region. There were no falls prevention issues unique to the geographical area. It shared the challenges of many other regions, including hospitals serving populations that ranged from rural to urban and containing higher and lower proportions of older residents than average. The SHA had sponsored a wide range of work across the region over the past few years, including an innovative study examining fragility fracture services both in hospital and the community across the region.⁸

All hospital settings have some patients vulnerable to falling. The FallSafe project aimed to recruit a comprehensive mix of hospital wards, representing different care settings (including secondary and tertiary acute hospitals, community hospitals and MH units) and specialities (including medical, surgical, rehabilitation and MH wards) and lengths of stay. The project was not restricted to any specific age group but focused on protecting all patients from avoidable harm from falls, although most people who fall in hospital are aged over 75 years.

All community, acute and MH NHS trusts from the South Central region were invited to participate via an invitation to Chief Executives. In our original bid we planned to recruit 15 wards from seven to eight hospitals. Further funding was provided from South Central to do more, so 17 wards across 13 hospitals were nominated providing a range of specialities (Figure 2). Seventeen applications were received, so no selection process was needed.

⁶ Patient Safety First 2009 *The 'How to' Guide for reducing harm from falls* www.patientsafetyfirst.nhs.uk

⁷ Royal College of Physicians, Clinical Effectiveness and Evaluation Unit 2009 National Audit of the Organisation of Services for Falls and Bone health of Older People, RCP, London:
<http://www.rcplondon.ac.uk/projects/national-audit-falls-and-bone-health-older-people>

⁸ Bose, Sadhana, Chrisopoulos, Sergio. Benchmarking quality of care for fragility fractures in the South Central SHA area: A Pilot report. South East Public Health Observatory. October 2010

Figure 2: FallSafe wards

Hospital	Location	Type of hospital or unit	Ward type
Petersfield Community Hospital	Petersfield	Community	Non-acute GP admissions
Basingstoke and North Hampshire Hospital	Basingstoke	Acute	Orthopaedic trauma
Basingstoke and North Hampshire Hospital	Basingstoke	Acute	Male medical
Parklands Hospital	Basingstoke	Mental Health (MH)	Older peoples MH
St. Mary's Hospital	Newport, Isle of Wight	Acute	Acute medical
Prospect Park Hospital	Reading	Community	Rehabilitation
Prospect Park Hospital	Reading	Mental Health	Dementia
Nuffield Orthopaedic Centre	Oxford	Acute	Orthopaedic
The John Radcliffe Hospital	Oxford	Acute	Gerontology
The John Radcliffe Hospital	Oxford	Acute	Medical short stay
Horton General Hospital	Banbury	Acute	Trauma
Churchill Hospital	Oxford	Mental Health	Older peoples MH
Queen Alexandra Hospital	Portsmouth	Acute	Respiratory medicine
Royal Berkshire Hospital	Reading	Acute	Acute medicine for care of the elderly
Royal Berkshire Hospital	Reading	Acute	Female trauma
St Mary's Hospital	Portsmouth	Community	Older adults
Southampton University Hospital	Southampton	Acute	Medicine for older people

Key stakeholders in hospital falls prevention are patients, their carers, nurses, therapists, doctors and managers. These stakeholder groups were reflected in the membership of the FallSafe steering group and the partner organisations, which included the South Central Strategic Health Authority, the National Patient Safety Agency, Action against Medical Accidents, the British Geriatrics Society (BGS) and the Royal College of Nursing (RCN).

1.3 Intended Improvement

The primary aim of the project was to support the reliable implementation of evidence-based multifactorial falls prevention assessments and interventions delivered as 'care bundles'. A care bundle is a structured way of improving the process of care. It consists of a small number of evidence-based interventions which when performed together have been shown to improve patient outcomes.⁶

The main mechanism of improvement was educating, inspiring and supporting a designated member of ward staff to lead local improvement on their own wards using Plan Do Study Act (PDSA) cycles, monitored by repeated process measures of compliance with care bundle components, and incorporating patient narrative feedback.

These leaders would also have access to a modest budget to address any local environmental or equipment needs that were barriers to improvement and a small uplift to salary to recognise their additional responsibilities. The support and resources given to these

local leaders was intentionally kept to a level that would potentially be widely replicable without the specific financial support the Healthcare Foundation provided.

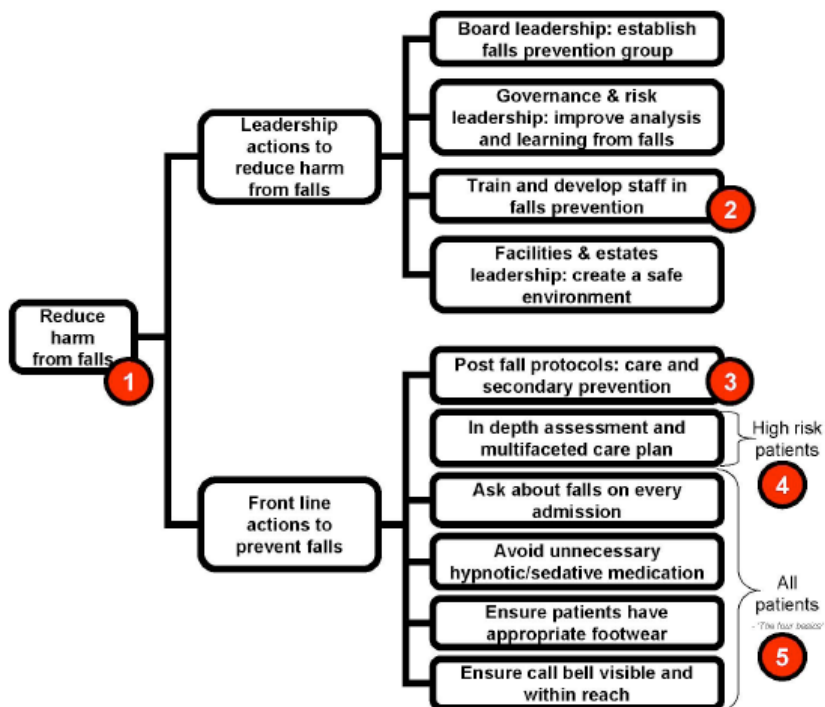
The approach was based on the driver diagram produced by the Patient Safety First campaign (Figure 3). This diagram was geared to whole-trust projects, and the strategic approach was adjusted to the local level of the FallSafe wards.

Secondary aims were to assess whether the care bundles were feasible and acceptable in all types of inpatient settings and to assess the outcomes of the project on reported falls rates adjusted through a formal assessment of levels of under-reporting.

Figure 3: Driver diagram



Overview of the intervention



Source: Patient Safety First www.patientsafetyfirst.nhs.uk

1.4 Changes along the way

Here we describe the changes made between the project proposal and the project initiation.

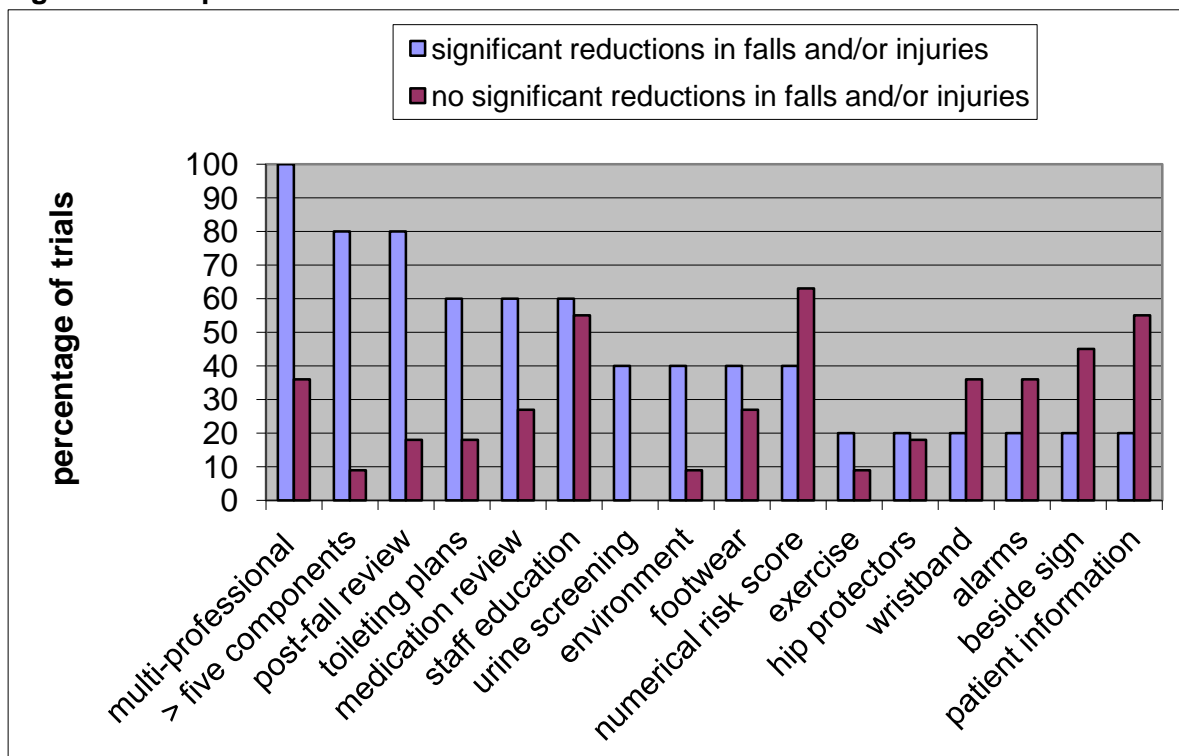
Instead of the originally proposed 15 wards, 17 were recruited as the SHA provided extra funds to ensure all volunteer sites could participate.

The original project name was changed from 'Action on Inpatient Falls' to 'FallSafe' and the 'Quality Improvement Facilitator' title was changed to 'FallSafe lead' in March 2010. These changes were made in response to feedback from the recruited leads, who wanted titles that conveyed their role, did not sound like 'jargon', and presented the project in positive terms (promoting safety rather than preventing harm).

A local falls nurse specialist and falls prevention physiotherapy lead were recruited to the steering group to ensure that the project was connected to other regional falls prevention initiatives.

The potential bundle components outlined in the proposal were refined in light of a new evidence review which compared the components of five successful and ten unsuccessful research studies of multifactorial assessment and intervention (figure 4).⁹

Figure 4: Components within successful versus unsuccessful multifactorial trials



The research studies that were successful used ward based leaders rather than visiting specialists; engaged a multidisciplinary team; and aimed to address between five and 15 risk factors for falls.

⁹ Oliver D, Healey F, and Haines T. 2010 Preventing falls and fall-related injuries in hospitals. *Clinics in Geriatric Medicine* 26 (4) 645-692

2. Methods

2.1 The intervention

The components of the FallSafe care bundles were taken from the evidence review and the NPSA and Patient Safety First guidance described on pages 6 to 7. Good practice in terms of delirium and dementia care was also incorporated in the FallSafe approach as falls in hospital are strongly associated with confusion (dementia and/or delirium). From these sources the components of two care bundles were developed (Figure 5).

Figure 5: Planned care bundle components

BASIC BUNDLE	SECOND LEVEL BUNDLE
Asked about falls history*	Delirium screen
Asked about fear of falls*	Trigger medication review*
Safe footwear on feet*	Urine dip-testing for signs of infection*
Call bell in reach (if able to use)*	Continence assessment/toilet offering routine
Clear communication of mobility status	Lying and standing blood pressure (BP)*
Personal items in reach	Hand taken pulse for arrhythmias
Walking aids in reach (if used)	Trigger review for medical causes and osteoporosis
No new night sedation*	Trigger physiotherapy & occupational therapy (OT) review
Cognitive screen (if 70 years +)*	Eyesight basic screening
Decision to use/not use bedrails appropriate	Depression screen
No trip or slip hazards	Move bed to best available position (observable bay or nearer toilet etc.)
* = measured monthly (see methods section)	

The basic bundle would be applied to all patients, whilst the second level bundle applied to patients more vulnerable to falls. For nine of the FallSafe wards that provided older people's care, the frailty and age of their patients made them all 'more vulnerable' and so both the basic and the second level bundle applied to all patients. The remaining FallSafe wards, were asked to continue to follow local policy for identifying 'more vulnerable' patients (which in most cases was the NPSA 'four questions' or the STRATIFY score) and in addition consider any patient with a history of falls or fear of falling as 'more vulnerable'.^{1,10} Some of these components were already required by local policies and some were not, so for different bundle components on different wards the challenge could vary from ensuring an existing assessment or intervention was delivered more reliably to introducing new ones. We recognised that measuring delivery of all components in both bundles was likely to prove too challenging in the lifetime of the project. So we aimed to deliver education on all the components to FallSafe leads so that they had a broad knowledge of falls prevention and could introduce and measure delivery of as many components as feasible (Section 2.2. page 15).

¹⁰ Oliver D, McMurdo M, Daly F et al. Risk factors and risk assessment tools for falls in hospital inpatients. A systematic review. *Age Ageing* 2004; 33:122–30

Recognising there could be different challenges for implementation in different specialities we recruited 17 wards of a variety of types across 13 acute and community hospitals and mental health units in South Central Region. For example, the physiological reasons for falling may be less well understood in MH wards, whilst dementia management may be less well understood on acute wards.

A staff nurse or junior sister/junior charge nurse was appointed FallSafe lead by each ward to take responsibility for introducing the care bundles. This approach was drawn from a review of the evidence that indicated interventions were much more likely to succeed when led by ward team members rather than by visiting experts. We targeted this grade as they were the most senior ward based staff likely to have capacity to take on a new project.

A small salary uplift of £2,500 per annum was provided for each FallSafe lead to recognise their additional responsibilities. They were also allocated a budget of £5,000 to purchase ward based equipment to ensure that no wards were frustrated through lack of supplies or infrastructure to deliver the bundle components.

Eleven training days were held over the two year period, beginning with an initial three day event. For the initial event, around two-thirds of the time was spent on inspiration, getting to know each other, clinical aspects of falls prevention and the rest on quality improvement and leadership skills. Education on the clinical aspects was delivered by the expert nurse, geriatrician and physiotherapist members of the Steering Group representing the partner organisations of the South Central SHA, the NPSA and the BGS and quality improvement aspects were delivered by Berkshire Consultancy. Throughout the training days clinical education was based on individual patient stories linked to the evidence base and interactive exercises. The 11 day programme is outlined in Figure 6, page 13.

After the initial three study days, the FallSafe leads went back to their wards to develop a local support network to assist them with improvement. Membership of these teams varied between wards but (where available) included a physiotherapist, occupational therapist (OT), ward sister, ward matron, consultant, pharmacist, nurses, risk managers, healthcare support workers and local falls specialists. The FallSafe leads took baseline process measurements (including assessing under-reporting rates) and introduced the first two components of the care bundle.

Figure 6: Education and development programme

Type of topic	Detail of topic
All study days	Sharing the learning (progress review)
	Next steps (aims for next month)
Clinical knowledge	Falls prevention evidence overview
	Risk scoring versus risk assessment
	Cardiovascular causes
	Culprit medication
	Continence and toileting
	Gait, balance and footwear
	Osteoporosis
	Vision
	Bedrail risks and benefits
	Environment
	Equipment risk and benefits (ultralow beds and alarms)
	Dementia/delirium
	Special observation
Clinical skills	Lying/standing blood pressure
	Head injury observations
	Assessment for mobility aids
	Basic visual assessment
	Cognitive screening (Abbreviated mental test score AMTS)
	Delirium screening (Confusion assessment method-CAM)
Quality improvement	Inspiration for improvement (lessons from motor racing)
	Overview of quality improvement
	PDSA cycles
	Measurement for improvement
Other	The patient/carer experience
	Roles and responsibilities
	Engaging others
	Working within local policies
	Incident reporting
	Barriers and challenges
	Up-skilling your curriculum vitae (CV)
	Root cause analysis (RCA)

As part of the phased roll-out, the remaining eight study days were spaced at six to eight week intervals. These days acted as points for review within PDSA cycles for components of the care bundle that had been previously introduced, and as the first 'Plan' stage for introduction of the next component of the care bundles. Process measures taken in the previous month were discussed; successes and challenges shared; and potential approaches to achieve further improvements in reliability were planned. Clinical education would then focus on the next aspect of the care bundle to be delivered; for example, the relationship between dementia, delirium and falls was the topic prior to introducing the cognitive assessment bundle component). Discussion, peer and expert support would then be used to plan introduction over the next six to eight weeks. Components were introduced

over nine months. Full implementation then continued for six months. PDSA cycles were not confined to these study days: the FallSafe leads were also working in PDSA cycles locally between these shared study day sessions.

A full time project manager based at the Royal College of Physicians (RCP) was the main point of contact offering regular support, collated data submission, coordinated training days, and finances. The project manager was responsible for developing and delivering the project according to project plan and within the resources – ensuring governance processes were adhered to.

Members of the central project team visited some of the wards to provide extra support to the FallSafe leads. The FallSafe leads were supported in devising their own strategies to engage local stakeholders. Trust leaders and the managers of the FallSafe wards were key stakeholders who were engaged through a formal commitment to support the project and regular email updates provided by the project manager.

The introduction and embedding of the bundle components was accomplished in different ways by FallSafe leads to suit their local challenges and circumstances. An example of local variation in implementation approaches is shown in Box 1

Box 1: An example of local adaptations - documentation changes

Adapting local documentation to prompt or trigger care bundle elements was achieved through changing standard formats in some wards or supplementing existing documentation with labels or stamps in others.

“It has been necessary to introduce new care plans and adapt some of the existing ones we use, trying to change ward routines, educating staff on procedures and what the bundles are to achieve.”

“I Introduced a few questions in the 72 hours assessment, such as “did you have a fall in the last 4 weeks? Fear of fall”. Also I added a couple of tasks for nurses to do on admission, like BP and urine dipstick. As the information needed for the project was almost totally included in the 72 hours form it has become a standard practice for nurses on the ward.”

“The urinalysis labels are pre-printed stickers on which the urinalysis results are recorded; these are then stuck in the medical notes. Previously the results were hand written in either the nursing or medical notes. If the sticker is not in the medical notes it is presumed the urinalysis has not been carried out.”

When it came to alerting the doctor, pharmacist or GP to review the patient’s medication; some FallSafe Leads opted for medication review stamps:

Falls Medication Review
to reduce CVS and CNS drugs
Requested by.....date.....
Reviewed by.....date.....

(CVS = central vascular system and CNS = central nervous system)

2.2 Measurement

Process measures

There are few established tools for collecting process measures related to falls.⁶ We used what was available, expanding and refining them into a template and help notes (Figure 7).

Figure 7: FallSafe data collection template

EXAMPLE	Sample of 20 patients (or all patients if ward has fewer than 20 patients)																				TOTALS (yes plus N/A out of total) to send to Lisa. Please refer to helpnotes.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Use to track patient names/initials/bed number/room number if you need to	FH	AB	ST	YH	LT	YT	TY	UP	KL	MJ	NM	HK	LT	FR	GT	HY	DE	ES	FR	TT	
All 20 patients:	If small ward with fewer than 20 patients write total here:																				
Observe: call bell in sight & reach?	Y	N	n/a	Y	Y	Y	Y	Y	n/a	Y	Y	Y	Y	N	Y	Y	n/a	N	Y	Y	14/20 + 3 n/a
Observe: safe footwear on feet?	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	Y	n/a	n/a	N	N	14/20 + 2 n/a
Notes: asked about history of falls?	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	18/20
Notes: asked about fear of falling?	N	N	N	Y	N	N	Y	n/a	n/a	N	N	N	N	N	n/a	n/a	N	Y	Y	Y	5/20 + 4n/a
Notes: urinalysis performed?	Y	Y	Y	Y	N	Y	Y	N	N	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	14/20
Drug card: given night sedation last night?	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	Y	N	2/20
For any of the 20 pts age 70+:	Number of patients AGED 70 +:																				13
Notes: cognitive screen?	Y	N	-	-	-	-	-	Y	n/a	Y	Y	Y	Y	N	Y	-	-	N	Y	Y	9/13 + 1n/a
For any of the 20 patients who are 'higher risk':*	Number of higher risk patients:																				8
Charts: L&S BP recorded?	Y	Y	-	-	-	-	-	-	-	Y	Y	N	N	n/a	-	-	-	-	N	-	4/8 + 1n/a
Notes: full medication review requested?	Y	Y	-	-	-	-	-	-	-	Y	Y	N	Y	Y	-	-	-	-	Y	-	7/8

A baseline measurement of each care bundle component was taken before any related improvement work was conducted. The wards then continued to report data monthly. During the phased introduction of the care bundle components the number being measured grew gradually over nine months until nine process measures were being collected for the remaining six months of the project. The FallSafe leads collected data on paper forms and submitted totals to the project manager by email on a monthly basis. The initial sample size was 10 patients per ward increased to 20 patients per ward except where wards had fewer than 20 patients.

Outcome measures

Collecting reliable data on falls is a challenge. Whilst falls reported to incident reporting systems are often used as outcome data for improvement projects and less robust research trials, they are affected by significant levels of under-reporting with potentially up to half of all inpatient falls going unreported.⁵ Case note review is equally unreliable at identifying falls without significant injury, whilst manual data collection (e.g. 'safety crosses') maybe even less reliable.^{11 12}

In research studies the issue of under-reporting is overcome by research nurses who scrutinise incident reports and case notes. They also ask patients and staff about falls on a

¹¹ Sari A, Sheldon T, Cracknell A et al. Sensitivity of routine system for reporting patient safety incidents in an NHS hospital. *BMJ* 2007; 334: 79

¹² Hill A-M, Hoffmann T, Hill K et al. 2010 Measuring Falls Events in Acute Hospitals-A Comparison of Three Reporting Methods to Identify Missing Data in the Hospital Reporting Systems *J Am Geriatr Soc.* 2010 May 7. [Epub]

daily basis. This was not feasible within the scope of this project, so we used the best data available to us, which was a combination of falls reported as incidents and a formal assessment of levels of under-reporting.

Data for falls were collected from trusts' standard incident reporting systems, with categorisation of injurious and non-injurious falls based on conversion of local severity categories to standard NPSA definitions of harm. Trust data were also obtained on occupied bed days so that falls could be converted into rates (which overcome variation in falls numbers related to changes in service activity or bed numbers).

Under-reporting is usually linked to a culture where falls are seen as inevitable and therefore not worth reporting and learning from. Because of this, any effort to improve falls prevention which improves staff attitudes can result in better reporting, and therefore an apparent increase, rather than reduction, in falls. We therefore developed a measure designed to assess changes in reporting practice, so these could be separated from changes in the underlying true rate of falls. Ten staff members on each of the FallSafe wards were asked to recall the last inpatient fall they were aware of and how certain were they that this had been reported. This measure was collected from 170 staff at baseline and repeated during the project.

Because of the potential for falls rates to be affected positively or adversely by changes external to the FallSafe project, outcome data were also collected from nominated control wards – the wards most similar to the FallSafe wards in the same trust in terms of service provision and staffing. Two FallSafe wards had no possible controls, but data were collected for the remaining 15 control wards.

Balancing measures

The inclusion of balancing measures in the project was deliberated and no feasible balancing measure could be found. The project team suggested using complaints but numbers were too insignificant. Bed days/length of stay and admission to nursing home were also suggested (as increases to either could indicate that an over-cautious approach to falls prevention had inhibited rehabilitation) but it was decided they were not uniquely affected by falls prevention practice.

Methods & Measurement: further changes along the way

At the initial study days we had planned to include a third bundle for care after a fall, and initial training was provided and baseline process measures were taken on one component of this (neurological observations after a fall). This was discontinued in November 2010 as essential care after inpatient falls would be addressed on a whole-trust basis by a forthcoming *Rapid Response Report* from the NPSA which members of the FallSafe Steering Group co-authored.¹³

Initially the urinalysis measure attempted to record how soon the test was taken after admission and the results. This proved difficult to consistently collect because patients were not always admitted directly to FallSafe wards. So it was simplified to ensuring that urinalysis was carried out at least once for each patient.

¹³ NPSA *Rapid Response Report Essential Care after an inpatient fall* January 2011 www.nrls.npsa.nhs.uk

The bundle component of increased observation initially included frequent regular comfort checks or 'intentional rounding' to support staff in focusing more time on their most vulnerable patients. However for some trusts introducing a standardised rounding system for all patients this was no longer necessary; whilst some MH and community wards found the comfort check of benefit to their patient group and modified or kept the measure locally.

At the project planning stage we were keen to assess the views of patients on the FallSafe intervention but this proved to be a challenge. There are no Patient Reported Outcome Measures (PROMs) designed specifically for falls prevention. Using a universal PROM would not be appropriate in a situation where the effect of the patient's acute illness or operation would overshadow the impact of any falls prevention intervention provided to them in hospital.

We held a focus group, but found the older people who attended this were 'young old' who had only experienced brief hospital admissions for elective surgery. The patients vulnerable to falling are the oldest, the most acutely ill and the most cognitively impaired of the patient group. This method would not work to obtain the views of the patients we wanted to reach.

We therefore set out to collect patients' views whilst they were inpatients, using a very simple format that patients could engage with, even if they were frail and slightly confused. The FallSafe leads were asked to give five of their patients a short, large print leaflet giving a summary of what they were trying to do with FallSafe (reading it to them if they were not able to read easily themselves). They then asked the patients how they felt about what they had heard. Our first draft of this format had a list of words the patient could circle such as 'worried' 'reassured' etc. but we were advised that because there were more positive words than negative words we could have skewed the responses. The FallSafe leads therefore repeated this with a new leaflet where patients were asked to write or tell the FallSafe lead how they felt about what they were heard. Counts of the key words used were then analysed (page 24).

Results

3.1 Outcomes

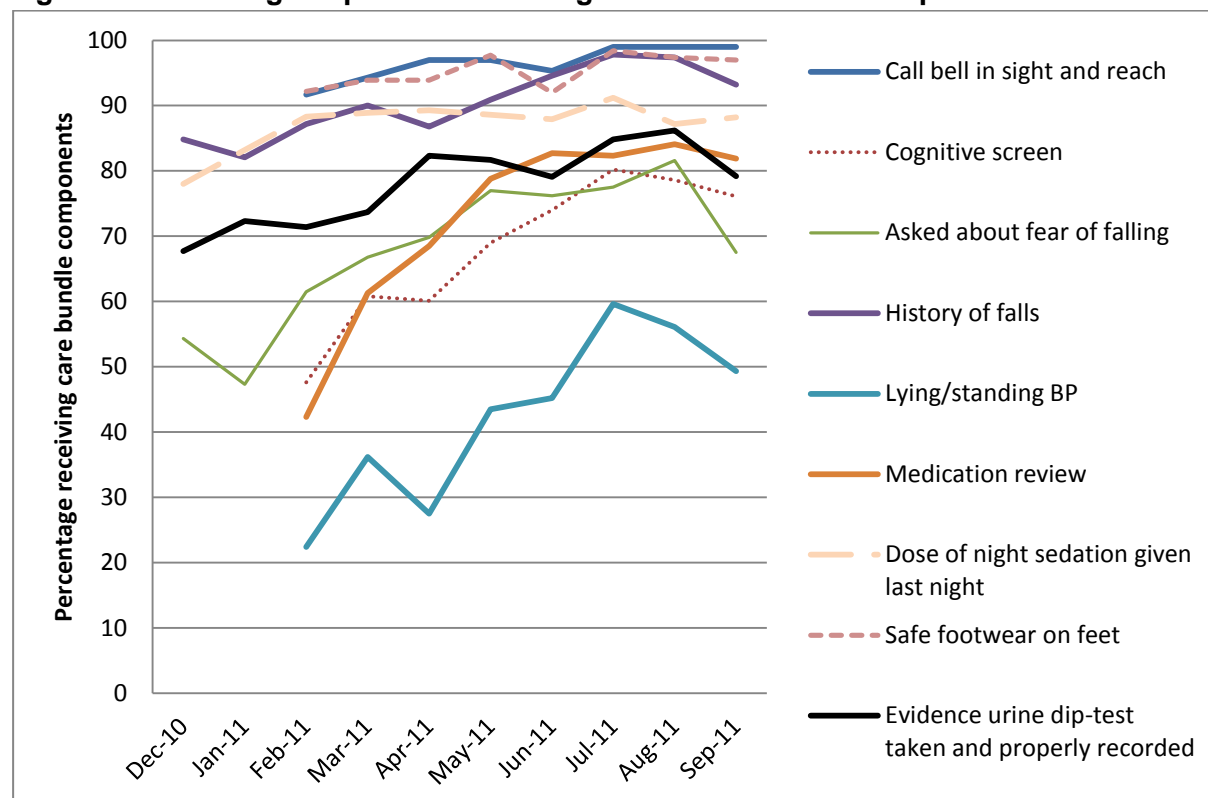
Improvements in care delivery (process data)

Figure 8 below summarises participation in submitting monthly process data. The main reasons for variation in participation were that two post-holders left (and hence no data on process measures was collected in June 11 and July 11 respectively for those two words) and the three dementia wards were agreed as exempt in regard to a call bell being in sight and reach, as they had no patients with capacity to use one. The variance in months of data collected between bundle components is expected due to the process measures being introduced as a staged process.

Figure 8: Overview of collection of process measures

Process measures	Months of data shown	Which months	Range of number of participants
1 Call Bell in sight and reach	8	Feb11-Sep11	11-13
2 Cognitive screen	8	Feb11-Sep11	13-16
3 Asked about fear of falling	10	Dec10-Sep11	14-16
4 History of falls	10	Dec10-Sep11	14-16
5 Lying/standing BP	8	Feb11-Sep11	14-16
6 Medication review	8	Feb11-Sep11	13-16
7 Was a dose of night sedation given last night?	10	Dec10-Sep11	14-16
8 Safe footwear on feet?	8	Feb11-Sep11	14-16
9 Evidence urine dip-test taken and properly recorded	10	Dec10-Sep11	14-16

Figure 9: Percentage of patients receiving these care bundle components each month



This graphical presentation (figure 9) is less than ideal as due to shift working and annual leave FallSafe leads did not always start improvement on the same calendar date, so early parts of the graph could include a mix of baseline measurements from some wards and measurements taken after the improvement work had commenced on other wards. The next table (Figure 10) overcomes this problem by summarising data from the first month of data submitted (baseline) by participants and compares it to the last month of data submitted. Note in the night sedation question, 'no' is the positive finding i.e. 87% of patients did not have night sedation.

Figure 10: Comparison of process measure delivery between first and last months

Process measures	% (n) of relevant patients receiving the process measure		Median number of months between FIRST and LAST	Range in number of months between FIRST and LAST
	FIRST month data submitted (Baseline)	LAST month data submitted		
1 Call Bell in sight and reach	91% (211/233)	98% (233/238)	7	4-7
2 Cognitive screen	50% (115/230)	78% (172/221)	7	3-7
3 Asked about Fear of falling	29% (40/138)	68% (188/277)	14	10-14
4 History of falls	81% (117/144)	89% (246/275)	14	10-14
5 Lying Standing BP	25% (40/159)	50% (80/159)	7	3-7
6 Medication review	42% (73/175)	84% (149/178)	7	3-7
7 Was a dose of night sedation given last night?	78% (126/161)	87% (241/277)	9	5-10
8 Safe footwear on feet?	91% (212/232)	97% (227/233)	7	4-7
9 Evidence urine dip-test taken and properly recorded	63% (107/169)	78% (217/280)	12	6-12

Overall there were some very encouraging indications of rising standards in every process measure as the FallSafe approach was adopted and embedded. In the context of existing care delivery, the levels of compliance achieved by the end of the project were almost without precedent. For example by the end of the project, night sedation (a potential cause of falls) was being given to only 13% of patients, in contrast to a major project in Australia which succeeded in reducing this to only around 20% after two years of focused intervention.¹⁴ The improvements in care delivery of 68% of patients being asked about fear of falling, 50% having their lying and standing blood pressure taken and 78% having their urine tested for infection is much higher than is being achieved in average UK hospitals (based on the interim results of the current Inpatient Pilot Audit).¹⁵

These assessments can make a real difference to patients' likelihood of falling (see Box 2).

Box 2: Impact on patients of improvements in the process of care

“After taking over a patient one night, I noticed that the patient wasn’t herself and she was most likely to have a fall as she kept getting in and out of bed due to her confusion. I decided to carry out a urinalysis test and showed the doctor who straight away commenced her on some antibiotics.”

“Elderly patient was admitted with head injury following a fall. I noticed that her diastolic blood pressure was below 100 mm Hg. I requested a medication review and she had them adjusted. Blood pressure on discharge was within normal limit”

¹⁴ Close et al. The 13th International Conference on Falls and Postural Stability 2012

¹⁵ Royal College of Physicians, Clinical Effectiveness and Evaluation Unit (awaiting publication) Inpatient falls pilot, RCP, London

“Patient had her medication almost completely changed when GP reviewed meds post fall, and claimed to feel much less wobbly”

“Urine test all fallers on admission has definitely picked up infections more frequently than we had previously realised”

“One relative let me know how happy she was that a nurse had listened to and taken seriously their history of their mum’s recent falls.”

“Patients like the fact that we ask them about falls history. It gives them a chance to express what has upset them, and it makes them aware of their vulnerability.”

“Staff have been positive about not giving un-needed sedation”

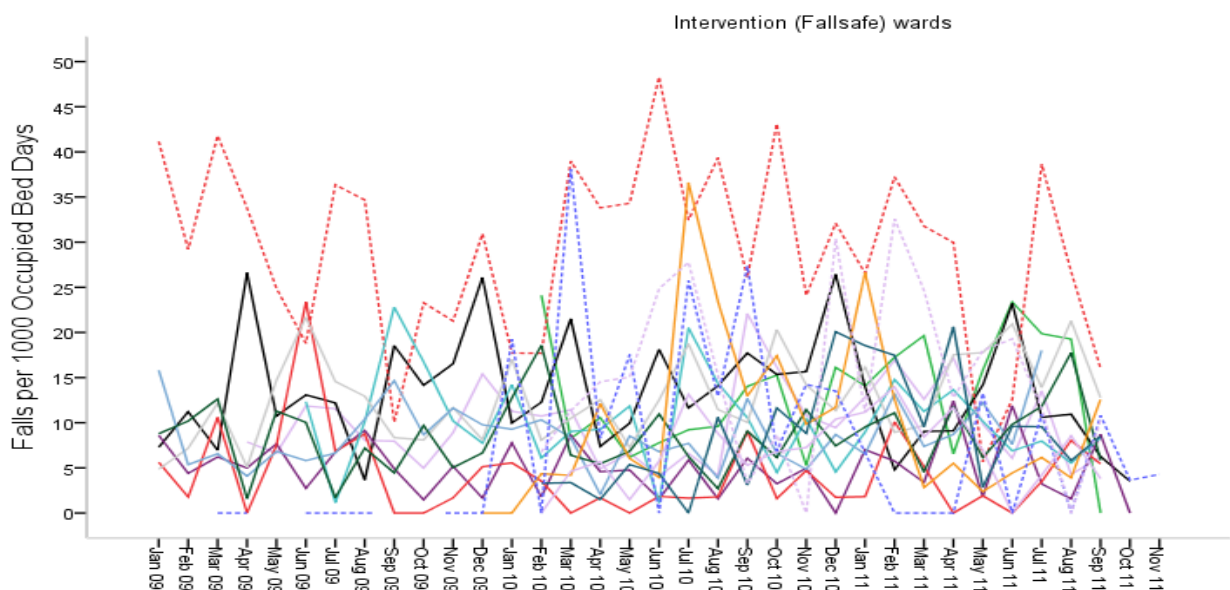
“Doctors (are) much more aware of medication reviews and also being specific on requesting time stated neurological observations”

“Several relatives have commented on the slipper socks and how it’s a simple idea that they can continue in the home environment”

Changes in outcomes (reported falls and adjustments for under-reporting)

Whilst we were aware of the value placed on run charts in improvement methodology, we anticipated that the extreme volatility seen in month-to-month single ward falls rates would mean clear improvement patterns would be unlikely to be visible. As Figure 11 below shows, fluctuations in overall reported falls rate for the FallSafe wards in the year prior to project initiation varied between zero and 50 falls per 1000 occupied bed days in different wards, and varied between zero and 40 falls per month on the same ward.

Figure 11: Monthly variation in reported falls rate per FallSafe ward per month before and during intervention



Because a run chart of individual wards produced such a confusing picture, we considered alternative methods of analysis.

Overall trends are usually easier to see if we just show the moving averages, but because falls have a seasonal pattern a rolling twelve month average has to be used, which for a project with only a six-month phase of full implementation could not realistically be expected to show trends.

We therefore analysed the data in six-month periods combined from all the participating FallSafe wards. These data have been broken down according to ward type below (Figure 12) for FallSafe wards and their nominated 'control' wards for the following periods:

Period 1 = February 2010 to July 2010 (Before)

Period 2 = August 2010 to January 2011 (partial implementation)

Period 3 = February 2011 to July 2011 (After)

These phases were used because of the stepped approach to introducing the bundle, with period one acting as the baseline (Before); period two as partial implementation; and period three as full implementation (After). They also helped the project avoid a common error in analysis of improvement efforts where seasonal variation in falls rates is mistaken for improvement, as period one and period three (the main periods used for assessing impact) cover the same calendar months.

Data collection of reported falls had to close with falls occurring by the end of July 2011, as some of the participating hospitals these data were routinely collated three months or more in arrears. This was the most recent data available when allowing time for statistical analysis before the final report was drafted in late 2011.

In Figure 12 below, rate ratio is the key summary of the data: a rate ratio of 1.00 represents no change, whilst a rate ratio of 1.12 indicates a 12% increase in reported falls and a rate ratio of 0.65 indicates a 35% reduction in reported falls, etc.

Figure 12: Comparison of reported falls between different FallSafe ward types

Sub-group analyses (intervention)				
	Acute	Community	Mental health	Original FallSafe lead maintained
Data from	9 wards	1 ward	3 wards	9 wards
Total Occupied Bed Days (OBD) Before	43534	3157	7375	32422
Total OBD After	43613	3166	6969	31650
Total reported falls Before	340	35	167	362
Total reported falls After	444	55	102	338
Total reported falls with harm Before	122	18	59	114
Total reported falls with harm After	182	22	36	112
Total reported falls per 1000 OBD Before	7.81	11.09	22.64	11.17
Total reported falls per 1000 OBD After	10.18	17.37	14.64	10.68
Total reported falls with harm per 1000 OBD Before	2.80	5.70	8.00	3.52
Total reported falls with harm per 1000 OBD After	4.17	6.95	5.17	3.54
Rate ratio of all reported falls After: Before	1.30	1.57	0.65	0.96
Rate ratio of reported falls with harm After: Before	1.49	1.22	0.65	1.01

The data used for Figure 12a excludes one FallSafe ward which was closed for several weeks and later reopened with a different patient population, and excludes two community

wards that were the only inpatient wards in their trust and so were unable to provide control data from a similar ward.

Figure 12a: Comparison of reported falls: FallSafe wards and their nominated ‘control’ wards

	Control	Intervention (matched with a control)
Data from	13 wards	13 wards
Total Occupied Bed Days (OBD) Before	46399	54066
Total OBD After	44936	53748
Total reported falls Before	415	542
Total reported falls After	382	601
Total reported falls with harm Before	163	199
Total reported falls with harm After	148	240
Total reported falls per 1000 OBD Before	8.94	10.02
Total reported falls per 1000 OBD After	8.50	11.18
Total reported falls with harm per 1000 OBD Before	3.51	3.68
Total reported falls with harm per 1000 OBD After	3.29	4.47
Rate ratio of all reported falls After: Before	0.95 95%CI 0.83-1.09 p=0.48	1.12 95%CI 1.00-1.26 p=0.06
Rate ratio of reported falls with harm After: Before	0.92 95%CI 0.74-1.15 p=0.46	1.21 95%CI 1.00-1.46 p=0.05

Note: 95% Confidence Intervals (CI) and p values calculated using random effects Poisson regression modelling with adjustment for hospital clusters

Overall the analysis shows that reported falls rose by 12% in the FallSafe wards combined; there were no significant changes on ‘control’ wards. Although the data for falls rates do not indicate a reduction in reported falls we have evidence that FallSafe affected the completeness of falls reporting. This needs to be factored in to determine changes to the actual underlying falls rates (Figure 13).

Figure 13: Reporting of falls on wards pre and during the FallSafe project*

Staff asked about falls	At baseline across all the wards	With FallSafe interventions
Total number of staff asked	170	160
Total who remembered a recent inpatient fall	85% (145)	72% (115)
Total who were certain that the last inpatient fall they had witnessed was reported	56% (81)	85% (98)
Total who thought that the last inpatient fall had probably been reported	18% (26)	8% (9)
Total who doubted that the last inpatient fall got reported at all	26% (38)	7% (8)

*This was calculated using all the ward (n=17) data rather than 13 wards that had controls

There was a substantial increase in the proportion of falls that staff were confident had been reported, from 56% of recent falls to 85% of recent falls. Taking these statistics and the falls rates on the intervention wards at baseline and when the full bundle was implemented, the following estimates can be made:

In period one (Before), the reported falls rate on the FallSafe wards was 10.02 falls per 1000 bed days. Given that staff at the time were confident that only 56% of falls were being reported, the actual falls rate was likely to be around 17.89 per 1000 bed days.

In period three (After), the reported falls rate on the FallSafe wards was 11.18 falls per 1000 bed days. Given that, staff were then confident that 85% of falls were being reported, the actual falls rate was likely to be around 13.15 per 1000 bed days.

This suggests actual falls may have been decreased by around 25%, which would mean the project achieved a level of reduction in falls equal to much more extensively resourced research interventions in the published literature. Caution however has to be taken with this estimate given the imperfect sources of outcome data that had to be relied on and the potential for these to be affected by random variation. Also we have to assume that certainty from staff about a fall being reported actually does correlate with the fall being reported and that any staff awareness of the study aims did not bias their responses.

All FallSafe wards had set their own local aim to reduce falls. On average, this was an aim of a 25% reduction in falls by the end of the project. As explained above, given the variability of falls rates month-to-month, and the very varied baseline falls numbers (especially small in some surgical wards), we did not expect this to be visible on individual wards within the six months of full implementation, but, subject to all the caveats described above, their combined results suggest their aims might have been met.

Results: specific settings

Inclusion of mental health care settings for older people was to some extent a 'leap in the dark' at project planning stages, as no published evidence exists for effective implementation of falls prevention strategies in that sector. Some process measures were not relevant to that sector (e.g. call bells in reach, as so few patients had the capacity to understand and use a call bell). However, the three FallSafe older people mental health (MH) wards were successful in implementing all the relevant process measures, including those that might generally have been considered more the sphere of general nurses rather than MH nurses, such as lying and standing blood pressure. In reality, many of the patients in MH wards and acute care had many shared features such as dementia or delirium; aged over 75 years and had multi-pathology which meant physical risk factors for falls were commonplace. FallSafe leads in MH units reported that taking into consideration remediable intrinsic causes of falls (such as orthostatic hypotension, medication or urinary tract infection), rather than solely the behavioural aspects of falls risk, was a real change in approach for them. This may have underpinned the reduction in falls rates they saw.

Results: continuity of FallSafe leads

Some FallSafe leads left their posts and had to be replaced. During the course of the project the team observed many of the FallSafe leads flourishing with both their self confidence and leadership skills improving. Sometimes this resulted in FallSafe leads being promoted and leaving the project. Given that some were in the early stage in their careers, it was inevitable that some would move. It was a challenge as the successors missed out on earlier sections of training and experience.

Desirable additions to outcome measures would have been to collect the numbers of fallers and repeat fallers as well as falls rate, but this would have been impossible within the remit of the project as patient identifiable data would have to link multiple falls to a single patient.

By the end of the project, FallSafe leads felt that attitudes to falls prevention on their wards had been 'transformed' from passive acceptance to active engagement in falls prevention. With hindsight, a mechanism for more formally assessing attitudes of staff would have been desirable, as would have been a formal assessment of their knowledge levels in key aspects of falls prevention.

All data collection tools can be found in the appendices.

3.3 What impact has this project had? (including engaging clinicians)

The key impact for patients was very substantial increases in the proportion of patients receiving the right care, as described on page 24, as have the outcome data which suggest around a 25% reduction in falls.

Feedback from the FallSafe wards indicated their wards and their hospitals as a whole have benefited through changes to policy, attitude to and awareness of falls, and better team working. Principally the FallSafe leads have benefitted through receiving excellent personal training from health experts and an insight into change management and quality improvement. Falls prevention awareness has increased on all the FallSafe wards and across many of the hospitals as FallSafe leads are invited to join falls groups. Hospital policies in some cases have been amended due to the impact of the FallSafe project. The ward environment has benefitted with new equipment purchased through the FallSafe grant, including ultra-low beds, bedrails, bedrail covers, grab rails, motion detectors, recliner chairs, gripper socks and manual sphygmomanometers. Whilst much equipment came from a suggested list provided to them at the start of the project, the FallSafe leads also devised ingenious environmental improvements helpful to falls prevention. For example, one unit extended bedside curtain rails so the patients could be more easily observed when the curtains were drawn back and they were sitting at the bedside; and one mental health unit invested in orientation and diversion materials to reduce the risk of fall-prone patients wandering due to boredom.

Box 3: Examples of feedback from FallSafe ward managers

Comments included:

- *"Increased focus and awareness of this risk"*
- *"Greater team work"*
- *"Raising awareness of the risk of falls and prevention strategies"*
- *"Increased awareness by all grades regarding falls risk"*
- *"Biggest impact on patients and biggest boost to staff has been the provision of slippers and slipper socks."*
- *"Has made staff generally better at completing our trust paperwork and incident forms"*
- *"Staff more likely to speak to GPs about medications"*

92% (11/12) of the ward managers rated the FallSafe project as very successful or moderately successful.

The routine of study days at six to eight weekly intervals, linked to the stepped introduction of specific bundle components and process measure reporting or feedback created a formal shared point on the PDSA cycle. In hindsight this was probably crucial to the sense of community and shared endeavour that they built.

This built-in PDSA cycle was very much valued by the FallSafe leads – especially the unstructured sections of study days when they successes and challenges were shared; progress on their process measures was reviewed and through peer and expert advice identified further improvement strategies.

The inclusion of MH wards also seemed to be a critical component of peer discussions and mutual support. The MH FallSafe leads received advice on the more clinical aspects of falls prevention from their peers, and the acute and community hospital FallSafe leads were given advice on managing their patients at risk of falls through cognitive impairment by their MH peers. The great variation, in not only the ward specialities but in the local culture and management styles they worked within, appeared to add to the richness of the community.

Box 4: Examples of peer and expert support to PDSA cycle

Lying and standing BP was one of the most challenging of the process measures to implement and was discussed on many of the study days.

The reason for this was that taking an accurate lying and standing BP requires a manual sphygmomanometer and the vast majority of ward staff used electronic ones and had become de-skilled; some FallSafe wards had no remaining members of staff who could use a manual sphygmomanometer and no manual sphygmomanometers on the ward. Although the equipment budget could overcome this, peer support was also essential in terms of identifying easy to use equipment, whilst expert advice could confirm it was appropriate equipment and the correct way to use it. The internal processes for purchasing could be complex and slow, and FallSafe leads shared ways of overcoming this.

This peer support extended to helpful and constructive challenge. When a FallSafe lead in a mental health ward had successfully up-skilled her colleagues to take lying and standing BP (although this was not previously a core skill for registered MH nurses) but a community hospital FallSafe lead was finding this problematic.

Finding ways to overcome these initially daunting challenges was one of the most admirable achievements of the FallSafe leads, and the re-skilling of staff and availability of equipment may have knock-on effects for the wards' ability to identify cardiovascular deterioration.

The FallSafe leads were less enthusiastic about the theory of improvement science, preferring to understand it through doing. They were daunted by the presentations on statistical analysis of improvement projects – in a context where many had never used an Excel spreadsheet, nor had access to Excel on workplace or home computers – but valued the process measures they provided as tables being fed back to them as run charts. Demystifying the process appeared fairly important to gain their engagement, for example pitching PDSA not as a technical or scientific process, but as an extension of what they

should have been doing all their working lives – trying something out, seeing if it works, and, if not, trying again.

Building the wider clinical teams' skills in improving quality on each FallSafe ward was primarily the responsibility of each FallSafe lead, who set out to develop a network of support to assist them with improvement. Membership of these teams varied between wards but where available included physiotherapist, occupational therapist, ward sister, ward matron, consultant, pharmacist, nurses, risk management, healthcare support workers and local falls specialists. Core local team meetings were almost entirely ad hoc, as shift patterns and clinical commitments meant formal local meetings were unfeasible.

All of the FallSafe leads held wider staff meetings to deliver training or updates on the project; however this was met with varying levels of success, often suffering low attendance or being forced to cancel due to staffing constraints. Logistically the FallSafe leads would have preferred to have semi-formal sessions and meetings to explain the project to the whole local team, but the less formal methods they substituted - training and updating as part of bedside care, handovers, and coffee breaks – appeared a pragmatic alternative.

To assess how well the recruitment and engagement of local teams was progressing and to help overcome any barriers, three local workshops were held for not only FallSafe leads but also key members of their local teams. Overall these workshops had a broad attendance, indicating the FallSafe leads had engaged their local managers, physiotherapists, occupational therapists, and in some cases doctors. Those attending described many examples of joint working. For example, occupational therapists who had previously been making assessments of cognitive function in their own notes were now doing this in shared records on one FallSafe ward. Further discussion and action plans came out of these workshops, with one FallSafe lead remarking it was the workshop that motivated their ward manager to get on board with the project. The workshops are an example of another aspect of the project the FallSafe leads valued; expert facilitation from Berkshire Consultancy, Kate Hudson, in terms of helping them enhance their influencing skills, understand team dynamics, and so on.

There was considerable variation between the wards, ranging from a ten-bed community ward to a 40-bed ward in an acute hospital, and from patient groups with prolonged stays to those with rapid turnover. Whilst this variation was a strength of the project – it tested the FallSafe methodology in a representative selection of wards – it presented very different challenges of implementation for the individual FallSafe leads. Influencing colleagues to change practice was more difficult for large wards with many staff working in separate zones and teams, and the larger wards also generally had higher levels of temporary agency staff.

Most FallSafe leads had a range of personal strategies they could use to engage local nursing staff and their immediate managers and did this very successfully, but one FallSafe lead commented that *“Engaging the staff was the most difficult aspect of the project”*. Where engaging staff was problematic, the underlying cause appeared to be the general morale of the ward rather than being confined to the FallSafe project, for example; *“Several members of the staff left the ward in the last 18 months. This created a lot of anxiety and pressure with the team members. As a result, the morale of the team has been low as well as the interest in participating in any project run on the ward.”*

Where therapists were ward-based they appeared equally well-engaged but in some FallSafe wards there were no locally based therapists, for example *“There is a shortage of OTs within the trust and patients are only seen by them if help is required with discharge. The physios rotate through the ward every couple of months so there was no consistency”* and *“Changing to a nurse-led ward means no Doctors, Physio or OT on ward.”*

Several FallSafe leads commented on difficulty in getting medical staff especially non-geriatricians involved in the project.

The FallSafe leads reported that leading change as a band 5/6 nurse was extremely challenging. The key to the success of this role relied on an individual being capable of engaging their peers, and they believed that improvement would have been far easier if they had more positional power, for example *“if I was the ward sister I could just tell them they had to do it”*. However, it is likely that the methods they had to rely on - convincing their peers of the value of the approach and embedding changes to practice in ward routines - are more likely to be sustained in their clinical communities than orders from above.

Whilst we understand competition is considered a useful motivator for engaging clinicians in quality improvement, our subjective impression as a steering group was that there was little competitive motivation between FallSafe leads – those who were achieving more consistent implementation or who achieved improvements sooner downplayed their achievements and were very ready to recognise that other wards may have been facing greater challenges. Their mindset appeared genuinely collaborative, and unless very specifically asked to reflect on their own achievements they generally expressed pride in their collective efforts rather than individually.

4. Discussion/learning

4.1: Clinical communities

In summary, there were several levels of clinical communities in the FallSafe project. The project steering group – particularly the project manager (Lisa Byrne) and clinical co-leads (Adam Darowski and Frances Healey), the active core members from the partner organisations (Julie Windsor and Jill Phipps) and the Health Foundation commissioned support (Kate Hudson and Noeleen Devaney) - could be seen as one clinical community, with a very rich mix of professional backgrounds including clinical and managerial, quality improvement and research, strategic and practical experience. The expertise and commitment of the key clinical members of the Steering Group, who were all acknowledged and respected experts in falls prevention in their respective professions (medicine, nursing and physiotherapy) as well as clinically active and well aware of the practical challenges of falls prevention, is likely to have been a critical element of the project’s success. They were immensely generous with their time and commitment to the project and inspired as well as educated the FallSafe leads.

The key clinical community was the peer support the 17 FallSafe leads gave each other. This included information sharing (e.g. stockists of good slippers, good makes of movement alarm) and debating of strategies for improvement (both in practical terms and influencing colleagues). This matured into gentle challenge in situations where most wards had succeeded in delivering process improvements whilst some were struggling and thought the challenge impossible.

Each FallSafe lead also developed a local clinical community; examples of these are given in Box 5.

Box 5: Examples of local clinical communities

“I established my team from the manager and the frontline nursing staff that I knew would be involved in championing any of the changes. Staff got involved easily as managing falls had been a long term challenge”

“We are a small ward but are lucky to have a good mix of disciplines that wanted to get involved. Our ward pharmacist was on hand to help with risk of falls from medication”

“To engage clinicians it is important to explain why care bundles are being used and what your aim for them is. Also to make sure that they feel part of it and are not just being told to do something. Important to stress that it can improve patient care”

“I sent e-mails to my colleagues, had meeting with managers, and involved other members of the multidisciplinary team (MDT), put up posters on the walls to give information to family, patients and staff about the FallSafe project and the rationale behind the changes we had to do.”

“Managers were very supportive and encouraging. Doctors on the ward were very supportive and they did not have any problem in helping me. In regard to the rest of the team, I learned that I have to go to the top managers to obtain their support. They can stress the importance of team work and obtain results with my colleagues and staff in general.”

“Colleagues were keen to be involved in this when the benefits were explained and the positive impact it would have on patients. Keeping the changes small so to lessen any feelings of having a larger workload and explaining it until everyone understood what the outcome we were working towards has helped.”

4.2 Achievements, challenges and things that did not work out quite as planned.

It was, in hindsight, unfortunate that the quality improvement (QI) support to the project team was not received until April 2010. The team did not have any prior experience of QI methodology, and this affected how the proposal had been structured and how we carried out early planning of the project and recruitment of sites and FallSafe leads. Once a QI adviser was appointed a session was arranged as part of the initial three study days for the FallSafe leads, however this was pitched at a level more appropriate for chief executives or directors and the audience of staff nurses and ward sisters was at a loss. It was felt that a different adviser would work better with the group however it was not until September 2010, six months after the start of the work, that they were appointed. Related to this, as a steering group we were more used to a situation where the content of a proposal for an audit or research proposal was considered as the contract for what must be delivered, and it took us some time to realise that changes in light of experience not only permitted but encouraged by the Health Foundation. Earlier and appropriately pitched QI support would be helpful for future projects.

The project plan underestimated the input the key members of the steering group – specialist nurses, geriatrician and physiotherapist - would be expected to make and successful delivery was dependant on very high levels of input and goodwill from the nursing and physiotherapy members as only the geriatrician role had planned funding. Future multi-disciplinary projects should consider co-leads or deputy leads from all key disciplines with supported time for project input, especially when projects cover multiple sites.

Having not had previous experience in trying to influence changes in practice, the FallSafe leads may have been overly self-critical of how long it sometimes took them to deliver strategic changes. For example, they were set the challenge of ensuring that walking aids could be provided for new patients who needed them over weekends and bank holidays where physiotherapy input was not available. This raised challenges of cross professional working (local physiotherapists needed to agree to the initiative and to provide basic training to ward staff to select and adapt aids to the patient's height), equipment supply (the main supply of aids might be funded by other services) and equipment storage (which is at a premium on many wards). Despite these challenges, 14 out of the 17 wards succeeded in providing access to walking aids outside weekdays – an achievement many very senior staff working in falls prevention (including some of those of the project steering group) would envy; at least a third of UK trusts have no such service on any of their wards.¹⁵ Having access to experts who could put their local achievements into this wider context is therefore a key lesson for planning future projects.

An aspect that proved unexpectedly difficult for FallSafe leads was 'navigating the system' – whether that related to how to go about ordering equipment, or how to get data on their reported falls, etc. Finding a more senior colleague– not necessarily a line manager – who understood local systems and could point them in the right direction was vital, and could be built into similar projects in future

As mentioned previously ward sizes varied as did organisational culture and support. Almost all the FallSafe leads were supported by their immediate line manager, but there were rare situations where the immediate line manager did not welcome any change to current practice. FallSafe leads with a quieter and less assertive personal style found it initially more of a struggle to get their peers on board with the project. Many FallSafe leads reported criticism and negativity amongst colleagues at the outset of the project and it became evident in some cases that if the FallSafe lead was not on the ward components of the care bundles were not being delivered. They had to make great efforts to shift staff thinking towards falls prevention being a shared responsibility, and all were confident that was the case further into the project as indicated by the changes in process measures.

There was a frustration for some FallSafe Leads who only worked day shifts when it came to trying to communicate with night staff and ensure the work was delivered properly. The challenges were lack of time, ward layout, staff turnover, reduced levels of permanent staff, inadequate time to train peers, and demarcation in staff roles (Box 6).

Box 6: Quotes on common challenges

“Lack of a teaching session to ward staff and senior management at the start to communicate the purpose of the project”

“Staff demoralised and tired due to increased workload”

“A doctor must do the neuro obs not the nurse”

“Use of Flowtron boots increases falls”

“Unable to meet up with team”

“The ward layout which although light and spacious does not aid patient visibility”

“Doctors rotate every 6 months”

“As we are an emergency ward patient condition can change rapidly.”

“Manager, OT and two Consultants moved roles.”

“A new computer system came into the hospital to replace paper notes.”

“I was able to change certain things at ward level but most changes to documentation etc. need to go through numerous committees and so takes time.”

Another challenge was that only nine wards retained their original FallSafe lead throughout the project; on one ward the FallSafe lead left and could not be replaced, and on seven wards the original FallSafe lead left and was replaced by a colleague. Although a handover was carried out there was an inevitably large knowledge gap while the replacement got up to speed, and the replacement FallSafe leads missed out on some of the study days. This rate of turnover was higher than we had anticipated, and a contributory factor seemed to be that participation in the project built self-confidence and increased the likelihood of promotion. In future recruiting a deputy lead from each ward who had access to the same training would improve continuity.

Wards also experienced service changes; one ward merged with its neighbouring ward, and another ward closed temporarily and later re-opened with as a different specialty, and future projects need to be prepared for even higher levels of changes in service provision given current challenges facing the NHS.

Some FallSafe wards in the acute hospitals were much larger than wards in the community hospitals, and this meant that ensuring the project was communicated consistently to all the staff was challenging. In these larger wards where the FallSafe leads worked in a specified team it was more difficult for them to collect an informal impression of compliance with the bundle until the process measures were collected from patients under the care of all teams in the ward on a monthly basis. Despite these challenges, future projects should aim to recruit wards that represent all types of provision, so that a range of implementation challenges can be explored and overcome.

High levels of staff turnover and high levels of temporary staff added to communication and implementation difficulties on some of the FallSafe wards. If staff were changing on a regular basis, education and communication had to be repeated more frequently. In some FallSafe wards at times, almost half the staff on each shift were temporary which is a very challenging situation in terms of influencing the whole team to change attitudes and practice in falls prevention.

There was a notable difference between trusts in terms of ability to amend the patient documentation formats in order to embed measures. Large complex trusts tended to have rigorous processes for proposing and agreeing any change to documentation formats, even on a pilot basis. It took one trust more than 12 months to update the paperwork to include a trigger question on fear of falling. In contrast, some of the smaller wards or those whose trusts has less standardisation and control of documentation simply made the change and had the new documentation printed, whilst others used a supplementary documentation sheet added at the front of the notes.

Organising the site recruitment, the study days, the workshops, the process and outcome measures and all other aspects of the project across 17 sites in a very wide geographic area and tight timescales, and coordinating a project steering group including clinical experts with many time constraints related to their 'day jobs' required sterling project management skills. Excellent project management is a vital contribution to success.

4.3 Interpretation

When adjusting for under-reporting the project may have delivered a reduction in falls very close to the target of 25%. Whilst no process measure was consistently delivered at 100%, all processes showed improvement, and for many processes the improvement was dramatic, and far exceeded the levels seen in the average ward or unit in the UK. Most of these improvements had not levelled off, and perhaps the most important lesson for any future falls prevention improvement projects is to allocate a much longer period of improvement.

Although the intervention was based on studies primarily conducted in older people's wards in acute hospitals, its implementation was demonstrated to be feasible in a wide range of wards, including MH units.. The mix of varied and contrasting wards appeared critical to forming a productive clinical community where differing strengths, challenges and solutions could be shared.

Maintaining a single FallSafe lead in post for the period of active implementation appeared critical to delivering and sustaining improved processes and outcomes, alongside at least some continuity in terms of the wider local team, and support from their line manager. This was made more challenging by the project taking place at a time of unprecedented reorganisation and cost pressures within the NHS that affected all the project wards.

The costs to trusts of replicating the project are explored in more detail below in section 8.3. Direct costs include a one-off investment to fix any existing hazards or fill any equipment gaps (up to £5000 per ward, but often much less) and uplift to salary to reflect increased responsibilities of around £2500 annually. This 'honourarium' approach to rewarding the FallSafe leads appears to have generated goodwill and delivered far more hours devoted to the project than the equivalent in hourly rates. Opportunity costs include time released for training and collecting process measures, and are estimated at around £4,000 annually. Translating this into cost savings proved problematic because of very limited available data on the costs of falls. We used the best data available internationally, but this is primarily based on clinically informed estimates rather than robust economic evaluation.

4.4 Summary

The most important successes were indications that actual falls may have reduced by around 25%. Process measures improved, until the levels of implementation in the FallSafe wards were substantially higher than is being achieved in average trusts (based on the interim results of the inpatient falls pilot audit¹⁵). This is important as all these process measures have value in their own right in terms of patient comfort, satisfaction, and health in addition to their contribution to falls prevention.

We demonstrated that relatively junior ward-based staff can be effective change agents, which is an important finding given more senior staff may not have the capacity to lead quality improvements in all the areas where these are needed. We found that their confidence, knowledge and skills appeared to be greatly enhanced by their roles. They created clinical communities not only in their own wards, but as a supportive peer group who readily shared learning with each other. Wards reported that staff attitudes to falls prevention had been transformed from fatalism to enthusiasm, and patients said the FallSafe approach made them feel happy and safe.

The costs of delivering the FallSafe project were kept low enough for its replication on a wide scale to be feasible, and the mix of ward types involved demonstrate that it could be replicated in most hospital settings. The need for support and commitment from senior leaders in each hospital were underlined by the need to recruit replacement FallSafe leads in many of the wards over the life of the project.

The main challenges of the FallSafe project were finding time to implement and measure improvements in the quality of care amongst competing priorities on busy wards with many vulnerable patients, a challenge that was increased on wards with high turnover of staff or temporary staffing. However, this reflects the reality of the situation in many hospitals, and the fact that the improvements in process and outcome measures were made in a group of wards experiencing less than ideal conditions for improvement makes them more credible and generalisable.

5. Resources to share

In the appendices we have provided:

- FallSafe press release (June 2011)
- BGS article (July 2011)
- FallSafe information sheet
- FallSafe care bundle
- FallSafe guidance notes
- FallSafe data collection template
- FallSafe newsletter (November 2011)
 - Leads, steering group and external
- FallSafe event programme and evaluation

The Falls e-learning package will be available in May 2012.

We explain more about these resources and how we will be sharing them in section 7.1 page 35.

6. Plans for sustainability

Because falls are such a widespread and extensive challenge in all inpatient settings, the key aim of the project was to provide a model that other wards and trusts could replicate (see section 7.1), as this is likely to deliver far more patient benefit than changes to practice in the FallSafe wards and units alone. However, sustaining the improvements made locally is also very important. Two members of the steering group (including one clinical co-lead) are based at two of the hospitals and will continue to support the FallSafe wards in sustaining the existing improvements and encouraging senior management to spread the FallSafe approach across the whole hospital.

The FallSafe leads report that they are confident their efforts are built in and will be sustained (see Box 7) but we would be keen to follow them up for a longer period and see if this actually happens. At the time of writing this final report, we are applying to the Health Foundation for permission to use the under spend from FallSafe to track and analyse their process and outcome measures for a further 12 months. It is anticipated that by extending the data collection period by a further year following the full implementation of the bundle, the 18 month data set will allow analysis that overcomes issues of improved reporting and seasonal variation and demonstrates longer term sustainability.

Box 7: Examples of sustainability

The FallSafe leads report that there has been a clear change in the mindset of staff, which is a huge accomplishment, and additionally they believe that the building of the care bundle into day-to-day duties will ensure sustainability. Many interventions have become embedded in the ward culture, routines and documentation and we believe this will help to sustain the work. There are already examples from the FallSafe leads of how they are continuing to drive change post FallSafe:

“Junior staff tended to overlook the importance of falls prevention. The culture before was “a fall is a fall. All I need to do is to inform the doctor and fill an incident report.” Now they have a sense of falls prevention and they can take ownership of prevention of inpatient falls.”

“The ward liked the use of the comfort checks and these are being discussed to continue to be used for patients that they will be useful for and this will be continued in their care plan. We now have equipment such as a low rise bed now that can be used for at risk patients that would benefit from it. Falls risk are discussed on ward rounds and will continue to be so that any falls can be reported on at least a weekly basis and medication checks can continue. This is now built in to the ward round template.”

“We have been completing 100% of paper work and more incidents forms related to falls. In this way we are able to understand when and why falls occur. For example we notice that a lot of the falls were between 9 and 11 am and 5 and 7 pm. Therefore, the managers were thinking about twilights shift to minimise risks. Also physical observations are now a regular practice on the ward. As mentioned earlier, care plans are now covering fall risk/reduction for all our clients.”

“I use the patient journey mapping exercise to discuss how we can improve patient safety (not just falls prevention) with new nurses and students using reflective practice, with the aim to achieve a safer ward environment to our future patients.”

Sustainability will not be easy on all wards especially when “*competing with all the other work and projects to be done on the wards*” and “*new policies and audits seemingly being introduced weekly*” there are worries these may take priority. Continuing to educate new and existing staff about the importance of falls prevention will in turn produce results. There is however still evidence that staffing levels and ongoing staff turnover continue to be an issue.

7. Plans for Spread

7.1 Explain your plans for spreading the learning and outputs of this project.

As hospital wards are increasingly occupied by older patients with multiple acute and long-term conditions, falls prevention is a very widespread issue that affects almost every inpatient ward, and there are therefore likely to be 15,000-20,000 wards in the UK that would benefit from the FallSafe approach. By the close of the project, FallSafe wards were providing most falls prevention assessments and interventions much more reliably than average hospitals in the pilot audit.¹⁵

For a complex intervention (taking around nine months of staged introduction), reaching so many wards through conventional local and regional spread would be impossible within any short timescale, and the project’s plans for spread were therefore based on a combination of national awareness-raising, together with ensuring the materials we used to deliver FallSafe were presented and shared in a way that would allow others to replicate the approach.

A key part of our plans for spread were two large-scale events in 2012. One was held on 1 March in London and the other on 8 March in Manchester. Each event had over 100 delegates ranging from clinical staff (doctors, therapists, nurses) to managers (nursing and risk). We achieved the level of attendance by advertising in both the National Falls and Bone Health Audit and FallSafe newsletters as well as on the RCP web pages.

The events aim and the objectives were decided and the content built around them. Each event was interactive with delegates being able to attend several talking points to understand how FallSafe was achieved. Delegates could ask questions during the talking points to find out more detail (see appendix). Most importantly several of the FallSafe leads attended and held their own talking point sessions telling delegates what they achieved and how. Other sessions delivered by members of the steering group and Berkshire Consultancy involved how to achieve change and motivate people as well as aspects of the care bundle. Both events had extremely positive feedback and there was a huge buzz about FallSafe (Box 8)

Box 8: March 2012 FallSafe events evaluation (more detail in appendices)

The aim of the workshops was:

**to disseminate the FallSafe falls prevention care bundle
and share the learning from its implementation**

Delegates felt that the day delivered its stated objectives:

By the end of the day:

- a) 100% had understood the FallSafe care bundle, its success and challenges
- b) 100% had identified procedures needed to enhance inpatient falls prevention locally
- c) 96% had identified strategies to engage multidisciplinary team support to drive change together

Opinion of the overview of the project, delivered by the clinical leads was:



Opinion of the FallSafe bundle and the day were:

Very practical - easily transferable.
Practice Educator

An excellent assessment for patients on admission. Will highly recommend it.
Staff Nurse

A lot of hard work with good outcomes.
Ward Manager

It's simple strategies to reduce falls. The challenges: staff competencies; and the barrier between different professions.
Anonymous

Good practical strategies to adapt to use in our trust.
Fracture Liaison Nurse

Useful to know what Trust should be doing.
Falls Specialist, Physiotherapy

Provides a structure for intervention and how to work with the link nurses and MDT.
Falls Nurse

Extremely useful. This is work that can now be duplicated in other trusts. It is extremely beneficial to not just focus on falls rates but completion of the bundle.
Falls Injury Prevention Nurse

Model was impressive as it concentrated on simple things which can make changes on a major level.
Anonymous

Very useful. Leaving as much improved, rounded and more knowledgeable person re: FallSafe.
Clinical Standards Facilitator

Very useful. We have worked in Sheffield for 19-24 months implementing changes very similar to the FallSafe work. However, today has helped me see where the gaps are. Thank you.
Matron

– Going to have to change e-learning package from current. Going to implement bundle on ES6 ward!
Consultant

One of the best day's I have attended within last 6 years while doing the Falls Lead Nurse.
Anonymous

The day was excellent: well worth the 0430 start.
Practice Development Nurse

Due to additional funding received from NPSA an e-learning package has been produced that delivers the core FallSafe curriculum (Figure 15). This is currently in final production stages and will be available from May 2012 via the NHS Electronic Staff Record System in England and also available for use from the NHS e-learning Wales. These systems are used in the majority of NHS trusts for mandatory annual training and as there are very high levels of demand for training in falls prevention in hospitals we are confident of very wide uptake. The e-learning incorporates training topics delivered to the FallSafe leads as well as key areas of learning from clinical skills and patient narratives. Even prior to release we have interest from Scotland, Australia and Canada, indicating potential for international spread.

Figure 15: The e-learning package: sample screen shots



We plan to send hard copies of the FallSafe materials to all nurse directors in the UK, in the form of a 'toolkit' that gives them all they would need for replicating the FallSafe approach, including templates and help notes for collecting process measures and a CD of the e-learning package. FallSafe materials will also be available on the RCP website, so that they can be downloaded electronically for local adaptation.

Other national and international spread is via conferences and journals; conference presentations already submitted and accepted include:

- Patient safety and older people (February 2012)
- Patient Safety Federation conference (March 2012)
- RCN Older People's conference, Manchester (March 2012)
- Falls Prevention in Older People conference, London (April 2012)
- Patient Safety Congress, Birmingham (May 2012)
- BGS Spring Meeting, Llandudno (May 2012)
- National conference on falls prevention, Glasgow (June 2012)
- 5th Biennial Australasian Falls Prevention Conference (October 2012).

Additionally a poster presentation has been accepted by the International Forum on Quality and Safety in Healthcare, Paris in April 2012.

The project team are currently looking into opportunities with the RCN newsletter and website and the Patient Safety Congress (May 2012). The project will submit an article to the BGS newsletter and is also investigating opportunities with Physiotherapy Journal, Agillity Journal and Nursing Standard. The project will also be written up for an academic journal, which is critical for its credibility in the field of falls prevention.

The project has been approached by the National Institute for Health and Clinical Excellence (NICE) that is currently in the process of developing updated guidance for the prevention of falls in older people and the project findings have been shared with them. The revised guidance will specifically focus on inpatient falls and service delivery and the FallSafe data will feed into this. Given that these guidelines are national this is a huge privilege for the project.

Spread will be assisted by the RCP managing the delivery of the Falls and Fragility Fracture Audit Programme (FFFAP). National spread should also be facilitated by the incorporation of the FallSafe process measures in the current *Pilot Audit of Falls in Hospital Care Settings*.¹⁵ If a future full national audit is commissioned by the Healthcare Quality Improvement Partnership (HQIP) within FFFAP these process measures may be collected regularly in all hospitals in England, Wales and Northern Ireland. Having one steering group member who is a National Clinical Director at the Department of Health and one who is an Associate Director for Patient Safety at the NHS Commissioning Board is also likely to help identify links between FallSafe and any future national initiatives.

Although the main emphasis is on national spread due to the scale of the challenge, local spread is continuing parallel to this (see Box 9).

Box 9: Examples of local spread

The FallSafe leads have reported that through the work on FallSafe they have developed networks across their hospital and have seen first-hand how the FallSafe project has impacted on hospital policy and/or procedures:

“I have become involved with the Inpatient fall group and have been sharing the work”

“We now have a new falls care plan and risk assessment that has been developed by the trust during the life of the project. This now documents whether fear of falls has been asked including carers and family thoughts. We now also have a trust made flow chart of what to do once a fall has occurred, this has now replaced the one that I had made during the project but contains the same information.”

“We are writing up a business case to get the falls link nurses from each ward more involved in falls prevention”

Many wards are engaging with the Director of Nursing for the hospital. At Prospect Park Hospital the control ward selected for the project is also an older people mental health ward and the falls lead in the Trust is now their ward manager and will be key to helping spread, first in her new ward and then throughout the hospital.

At Queen Alexandra Hospital and the Royal Berkshire Hospital the FallSafe leads have reported being approached by other medical wards who wish to incorporate the care bundle. The falls specialist nurse is in the process of introducing medication review stickers for all high risk patients, and also post-fall medical review stickers. Nursing paperwork for the trust is being revised and relevant falls questions are to be included.

The falls specialist nurse at Queen Alexandra Hospital (who was a core project team member) is eager to extend this programme to develop a trust-wide model of local spread based upon the learning from this project.

At the John Radcliffe in Oxford, having a proven falls reduction plan done using QI has enthused senior nurses in our hospital to replicate this throughout our Trust.

7.2 How are you going to promote your innovation and convince others of its value?

We hope we have covered this well in the previous sections, so will add here the most important argument of all – the impact on individual patients (Box 10).

Box 10: Examples of patient stories provided by FallSafe leads

Mrs M

'Is the patient or their family anxious about the patient falling?' Who would have thought that finding the answer to a question so simple can have such an impact on a patients' care.

Mrs M 72yrs was admitted to our ward, following a fall during a dance class, with fractured neck of femur and has had a quick recovery post surgery. But despite the fact that she was fully recovered she would spend most of the day in bed. Following a conversation with her husband we found that Mrs M used to be a very active person and she enjoyed dancing but now she lost her confidence that she could ever walk like she used to, without falling again. These findings encouraged nurses to take action to ensure Mrs M's safety and a safe care environment. The result of this action was that Mrs M gradually regained her confidence and now she even talks about rejoining the dance class.

Being part of the project encouraged nurses from our ward to use the FallSafe Care Bundle from day 1 of admission and to incorporate the findings into Mrs M' s plan of care, giving them the opportunity to promote safety through best practice. Before joining the FallSafe Project the culture on our ward was 'all I need to do is to fill an incident report', now staff showed an increased awareness of falls and a sense of fall prevention.

Mr X

A male patient that has Alzheimer's, Bi-polar and spatial awareness difficulties was admitted in a manic state and had not slept for several days. He was very prone to falls and felt safe when he was sat on the floor and moving along the floor. At this point we did not have a set way of monitoring a patient after a fall. Our own policy did not give set times of observations or a set order of how to do things. Having the FallSafe in place helped with this patient as the ward was actively thinking about how to prevent falls. To begin with he had to be nursed with a mattress on the floor for his own safety but when he became more settled we were able to give him the ultra low bed (brought with FallSafe money) to help him get used to being back in a bed and reduced the risk of him hurting himself if he did fall from it. The urine dipstick showed he had an infection also that increased his confusion and manic state.

Mr A

Mr A was admitted with Pneumonia. He had a history of several collapses at home. He was taking medication for high blood pressure, Ischaemic Heart Disease and Chronic Obstructive Pulmonary Disease (COPD). It was noted his blood pressure was on the low side. On measuring lying & standing blood pressure he had a substantial postural drop. The doctors were asked to review his medication and they first reduced his blood pressure medication and then stopped it completely. His postural drop became less and he felt less dizzy. On discharge he was referred to the falls clinic.

Mr P

Mr P appeared unsteady on his feet when admitted. He walked using a walking stick. His family said the he had several falls at home prior to admission. During the 72 hours assessment Mr P was given a walking frame and his BP was taken and recorded. It was then highlighted that his BP was very low. Mr P has been taking medication to reduce his high BP for the last couple of years but it was never reviewed by his GP again. He had a fall 18 hours after admission. The ward Dr was asked to review his medication, taking special consideration of BP tablets as well as sedatives. His medication was changed and reduced in order to minimise the risk of fall. Since then Mr P has been mobilising well and independently with the use of the frame.

We would emphasise how effective the approach was in turning relatively junior nursing staff without pre-existing specialist knowledge of falls prevention or quality improvement into confident leaders who had overcome a range of challenges and whose self-belief appeared transformed (see Box 11 for examples). This culminated in the two spread events in Manchester and London (box 8 and appendix), where the FallSafe leads found themselves the most sought-after experts on the day in consultation sessions where hospitals wanting to introduce the FallSafe approach could ask their advice.

Box 11: Examples of personal impact on FallSafe leads

“Suddenly I get invited to lots of things – everyone wants me, other wards, even physios. It’s scary but exciting!”

“I have been invited to speak at the clinical effectiveness meeting”

“I now have a new role as a community matron in the Emergency dept - I have been given the responsibility for leading on falls prevention.”

“Having been doing this [nursing] for 30 years it’s the first time ‘evidence based’ meant anything to me. I was evidence based and proud of it!”

“Attended the clinical effectiveness meeting and gave a presentation on the project”

“Will be attending the next falls meeting within the trust”

“I have given a brief talk on the project at the weekly sisters meeting”

“The experience has taught me how to utilise my engaging skills while asserting my new role as the lead for this project”

“The training on falls made me quite informed and confident in being the lead on falls awareness/information”

“I will shortly be trained up to do the annual mandatory training updates for staff”

“My networking capability has expanded as a result of this project, beyond my own expectation”

7.3 What advice would you give to someone attempting to replicate your work in another organisation/setting?

The key piece of advice that resonates from all the FallSafe leads is that a supportive, enthusiastic, multi-disciplinary team is paramount to facilitating change. Other key pieces of advice from the FallSafe leads to anyone replicating the work are shown in Box 12.

Box 12: Advice from the FallSafe leads

Levers to facilitate change/enhance chances of success:

- Do as much planning and promoting as possible at the beginning of the project
- Set up your core team from the beginning to support the work
- Ensure there is a realistic, clear aim agreed
- Make sure that you have manager and consultant input as this will help to add weight to any decisions that need to be made and help with staff who may be unwilling to participate
- Involve patients
- Ensure regular updates about the project are regularly communicated to staff
- Ensure falls data for the ward are visible to staff and patients to highlight the priority of reducing them
- Ask staff's opinions and try to use their advice and ideas to make them feel valued and to give them some ownership of the project as well
- In community hospital settings, speak directly to the GPs when it comes to medication reviews
- Use Healthcare Support Workers, as they provide more help to patients with personal care, and so may recognise potential problems sooner.

Ensure success and produce robust evidence:

- The project lead should be a ward based member of staff whom the rest of the team respects and has the potential to develop strong leadership skills
- Deliver regular educational interventions - staff education is a valuable strategy which helps them to understand the impact of changes. Include why they are doing things e.g. Why we do cognitive testing? Who do you tell? What do you do about a low score?
- The project lead should have a deputy who can champion the work in their absence
- Staff should be reminded that not only will this benefit the patients, but also themselves in the long run
- Changes should be introduced gradually, letting people get used to one change before another is introduced
- Get to know the Risk Management department as they have access to data which can save you time and work.
- Network with others undertaking improvement work, including those working in different trusts and care settings

Barriers and challenges:

- Wearing a work uniform when collecting data may bring with it problems as patients and colleagues do not recognise that they are not to be disturbed
- There will always be people resistant to change and you need to be ready to accept this and not get downhearted

The core steering group would add the following advice for ensuring success over a number of wards (Box 13).

Box 13: Advice from the FallSafe steering group to managers/directors

- Have visible executive commitment.
- Provide an experienced and senior staff member who can ‘troubleshoot’ any barriers to improvement that seem insurmountable at ward level.
- Formally agree mutual expectations with the FallSafe lead and their ward manager, including at least monthly collection of all process measures.
- Have succession plans in place; many of your FallSafe leads may move on to other jobs within a year or two.
- Remember the FallSafe approach is a multidisciplinary approach, not a nursing initiative; the FallSafe lead is an improvement facilitator for all her colleagues, not just fellow nurses.
- Building knowledge and skills can’t be done overnight; falls prevention is a complex topic, and less investment in training would not equip the FallSafe leads to be confident mini-specialists.
- Don’t try to introduce the bundles all at once; the staggered implementation was critical to making things manageable.
- Stay evidence-based; reliable delivery of an ineffective intervention won’t help patients.
- You don’t have to spend a fortune on equipment, but the basics of footwear supply, manual sphygmomanometers, and at least one ultralow bed are essential.
- Make changes to standard paperwork that will prompt FallSafe assessments and interventions.
- Peer support and challenge is critical; try to widen the groups of FallSafe leads beyond your own organisation and into different care settings, to open their minds to different ways of doing things.
- Keep these peer support sessions a ‘safe space’ separate from any line management or performance management.
- Don’t change this into a top-down initiative; the essential part of FallSafe was that the leader was part of the ward team.
- Measure your local levels of under-reporting of falls before you start, to help you interpret any changes in reported falls rate.
- Recognise falls rates fluctuate greatly between wards, between months and between seasons, and the impact on falls rates will probably not be visible with anything less than a year of whole-hospital data.

7.4 What do you see as the main challenges to the future spread of your work?

The FallSafe bundles do not contain anything that should not already be part of routine practice; the challenge is reliably and consistently delivering them in the face of competing priorities. The NHS is facing an unprecedented period of change and resource constraints which will inevitably add to those competing priorities and the pressures on staff. Even positive national changes, such as shifting care closer to home, may mean hospital patients are even more acutely ill and therefore more vulnerable to falling.

The relatively low-tech and patient-centred essence of the FallSafe approach – that patients fall for a reason (or, more usually, multiple reasons) and if those reasons can be identified and treated, their risk of falling will be reduced – suffers from being ‘not rocket science’. It is much easier to generate excitement for a brand new medication or piece of equipment than it is for an approach that improves the delivery of assessments and interventions which are vital but fundamental.

Because of the very high volatility of falls rates at individual ward level (differences of 70% or 80% between individual months at ward level are commonplace) there are many apparently impressive, but unsubstantiated, dramatic improvements reported in the grey literature. Seasonal variation in falls rates is also misunderstood, with whole hospitals sometimes assuming lower falls rates in summer months indicate their interventions have succeeded. We took great care to avoid these errors of analysis in the FallSafe project, and there are concerns that spreading the FallSafe work without the pull of a huge impact on falls will be faced with scepticism given the ‘miracle cures’ some of the grey literature suggests.

8. Return on investment

8.1 Can you estimate the cost of the intervention and the benefits accrued?

The cost of the intervention per FallSafe ward was:

- Up to £5,000 to improve the environment and buy essential equipment related to falls prevention. This was a one-off to fix gaps in provision and would not need repeated year on year; £1,000 per annum might be a realistic average. On average the wards spent £4,000 however most sites have struggled to coordinate invoicing and purchasing with some spending not reclaimed.
- Approximately £2,500 per annum as an honorarium to the FallSafe lead for taking on additional responsibilities.
- Release of a band 5/6 nurse for one training day on 5.5 days per year. This was a theoretical cost of £1,078 per annum (based on £24.50/hr for backfill). Compared to far more extensive cover for sick leave and other training needs in an average ward per year this would be absorbed in most budgets.
- FallSafe leads estimated they spent 12 hours per month on average collecting data. This was a theoretical cost of £294 per ward per month (£3,528 per annum) but was done either in quieter moments on the ward or in their own time.

Overall these costs would equal £3,500 per year actual costs, plus £4,600 potential costs if their time was backfilled.

The cost of delivering this as a centralised project was:

- Provision of two/three trainers for each of eleven study days – Berkshire Consultancy support was separately budgeted and all but one of the four clinical expert trainers provided their time gratis. In any local replication, such training is likely to be delivered by local experts (specialist falls nurses or therapists and geriatricians with a special interest in falls prevention) who have education as part of their role.
- A full time project manager and a clinical lead for one session per week; this amounted to approximately £3,000 and £1,500 per month. This resource was primarily required to ensure this was a single coordinated project with combined analysis and preparation of reports for dissemination, etc. and would not be required should the FallSafe approach be replicated locally, although a small amount of administration resource (e.g. arranging meeting venues) would be helpful, alongside around one session a week of high-level clinical leadership of efforts across a number of wards.

8.2 What have been the cost implications to your work?

The benefits accrued, the improvements in process measures and the impact on falls rates, as well as the more intangible effects such as changes in attitudes and the increased confidence and skills of the FallSafe leads have all been discussed throughout this report. This section therefore focuses on the potential cost savings from the apparent reduction in falls rates once under-reporting had been factored in.

Other than immediate treatment costs of £15 million annually calculated pragmatically by the NPSA for *Slips trips and falls in hospital* (based on reference costs, staff time, and investigation costs) no reliable cost estimates for inpatient falls exist in the literature internationally. Some economics are counter-intuitive (e.g. treatment for a fracture sustained in an inpatient fall may actually generate extra income for the trust under payment by results). The *Rapid Review of Economic Data for High Impact Actions for Nurses and Midwives* uses the NPSA's *Slips trips and falls in hospital* as its source but misquotes data on litigation costs; a more accurate source would be Oliver et al.'s (2008) study which analysed ten years of NHS Litigation Authority data and found fewer than 30 falls per year resulted in awards or settlements, with the mean total of costs plus damages of £13,000 per case and around £390,000 per annum in England.

A conservative clinically informed estimate by Dr Frances Healey, Joint Head of Clinical Review and Response at the NPSA, updating the 2007 NPSA estimates, would be that:

- 10% of no harm falls result in one extra bed day (given anxiety of relatives and potential loss of confidence in the patient)
- 20% of low harm falls result in one extra bed day (given the slowing effect of sprains or some bruises on mobility)
- 90% of moderate harm falls result in one extra bed day (given the definition of moderate harm is that extra investigation or treatment was required)
- Falls resulting in fractures result in an average of nine extra directly attributable bed days¹⁶

¹⁶ Nadkarni, J.B., Iyengar, K.P., Dussa, C. et al. 2005. Orthopaedic injuries following falls by hospital in-patients. *Gerontology*, 51, (5) 329-333

Given these data and patterns of increasing costs of staff time and treatments the following current estimate of the cost of healthcare treatment for inpatient falls is:

- The cost of hospital falls across England without factoring in increased length of stay is around £30,000,000
- The cost of hospital falls across England with factoring in increased length of stay is around £90,000,000
- The cost of hospital falls per medium sized acute trust without factoring in increased length of stay is around £200,000
- The cost of hospital falls per medium sized acute trust with factoring in increased length of stay is around £500,000

If these estimates are the accepted, the 25% reduction in falls that FallSafe appears to have delivered would have potential to deliver annual savings of £50,000 to £125,000 per medium sized acute trust, and of around £7,500,000 to £22,500,000 across England.

Realising these cost savings in terms of staff time and occupied beds is likely to be problematic given the wide distribution of falls across a range of wards, and the relative rarity of falls resulting in severe injury (less than 1% of the total). However the FallSafe interventions may have cost benefits that extend beyond the prevention of falls for example, early detection and treatment of delirium and dementia can reduce morbidity, mortality, and need for social care.

Although in purely financial terms the healthcare costs of falls are only a small fraction of a percentage of trust income and expenditure, the costs to a trusts' reputation, patient and carer confidence, and social care costs can be significant. This is often reflected in terms of reductions in falls being made a Commissioning for Quality and Innovation (CQUIN) target in contracts between commissioners and providers, and in this context potentially trusts can be financially rewarded for reductions in falls rates. In situations where failing to reach CQUIN targets can affect millions of pounds of trust income, the FallSafe approach is highly likely to be cost effective.

8.3 What were the main difficulties you encountered in identifying cost and benefits of your work?

Note we have covered this in section 8.2 above, as we had to explain the difficulty in obtaining a robust data source on the costs of falls as context for why we used the sources we did.

We found Springfield Consultancy were not able to help us with this process as the challenge was a lack of any reliable data in the international literature on what the financial cost of a hospital fall was in terms of increased length of stay or discharge destination, rather than the models that could be used to construct such estimates or to balance them against the cost of the interventions.

9. Conclusions

The FallSafe project aimed to build the knowledge, skills and confidence of clinical staff in delivering falls prevention interventions that had been shown to deliver 20-30% reduction of falls in research studies. The approach centred on educating, inspiring and supporting ward-based leaders to lead improvement through influencing their local nursing, medical and therapy colleagues.

The primary aim of the project was to support the reliable implementation of evidence-based multifactorial falls prevention assessments and interventions delivered as 'care bundles'. The project has demonstrated the approach was highly effective in its primary aim in terms of delivering improvements in processes of care that are important not only for falls prevention but for patients' wellbeing and their general health. For measures that started from a relatively high baseline, such as having a call bell in reach and safe footwear on the feet, FallSafe delivered improvements that represented a change from a scenario where it would be normal for two or three patients on an average ward not to have these, to a scenario where it was normal for every patient to have these in place. For assessments and interventions that were not delivered well at baseline, very marked improvements were seen, with more than twice as many patients receiving assessments to identify causes of falls related to cardiovascular problems, medication or urinary tract infection.

A secondary aim was to assess the outcomes of the project on reported falls rates adjusted through a formal assessment of levels of under-reporting. Based on reported falls and adjustments for under-reporting, the FallSafe project has delivered reductions in the rate of falls equivalent to those seen in much more resource-intensive research studies.

These achievements have real value in an NHS where almost all wards have a number of patients vulnerable to falling, and where national audit data indicates these basic elements of best practice in falls prevention are currently delivered to only a small proportion of the patients who might benefit.

FallSafe demonstrated that staff nurses and junior sister/charge nurses can lead quality improvement projects and succeed in changing not only the behaviour of staff junior to them but also the behaviour of their peers and staff senior to them. This is important learning, as there are many more potential quality improvement leaders at this level in healthcare than in the more senior echelons usually considered as quality improvements leaders. We also demonstrated that the care bundles were feasible and acceptable in a wide range of inpatient settings.

'Closing the Gap' between evidence and practice is reliant on participants having a clear understanding of what best practice looks like, especially in an area such as falls prevention where the causes of falls and the evidence base for successful interventions are complex. Because of this, providing education in the relevant evidence-based clinical knowledge and skills appeared critical to ensuring that improvement efforts were focused on actions that would have an impact on falls so that the FallSafe leads were not just 'doing something' but doing something that works.

To engage this group of staff in quality improvement it appeared important to give them education adapted to the scale of challenge they were facing (ward level rather than hospital-wide) and which presented quality improvement as a practical everyday process rather than a specialised science.

Creating a peer support group that crossed organisational and care setting boundaries appeared to be an important part of generating a supportive and effective clinical community. Cross-organisational communities like this are more likely to create a 'safe space' to discuss setbacks and problems without fear of blame, and can be an efficient way of ensuring access to specialist topic or improvement advice when needed.

Whilst formal balancing measures could not be identified, the project received positive feedback from patients and their carers, and the FallSafe leads reported transformations in attitudes and skills for falls prevention in themselves and their colleagues.

In summary we believe the project has achieved a great amount given the dispersed nature of the sites, the junior level of the local leaders and the current pressures on the NHS, and it must be acknowledged that none of this would have been feasible without the continued determination of the FallSafe leads.



Appendices

A	FallSafe press release (June 2011)
B	British Geriatric Society article (July 2011)
C	FallSafe information sheet
D	FallSafe care bundle
E	FallSafe guidance notes
F	FallSafe combined data collection template
G	FallSafe newsletters
H	<ul style="list-style-type: none">• FallSafe leads and external contacts (October 2011)
I	<ul style="list-style-type: none">• FallSafe steering group (November 2011)
K	FallSafe event programme
L	FallSafe London event evaluation form
M	Evaluation of FallSafe events



‘FALLSAFE’ PROJECT AIMS TO REDUCE FALLS IN HOSPITAL

A group of health organisations have joined together in a project to help prevent people falling in hospital. Accidental falls are the most commonly reported patient safety incidents in NHS hospitals, with over 280,000 falls reported each year. They can lead to injury, including fractures and head injuries, impaired confidence, anxiety and poor rehabilitation, and are a frequent factor in patients needing long-term care.

The project ‘**FallSafe**’ is part of the Health Foundation’s Closing the Gap through Clinical Communities programme, and is delivered by the **Royal College of Physicians’ Clinical Effectiveness and Evaluation Unit**, in partnership with the **National Patient Safety Agency, South Central SHA**, the **Royal College of Nursing**, and **Action against Medical Accidents (AvMA)**.

The project will help hospital wards to carefully assess patients’ risk of falling, and introduce simple, but effective and evidence-based measures to prevent falls in future. The lead nurse in each participating ward is using a practical ‘care bundle’, which means going through a checklist of actions with each patient admitted to the ward. They include:

- A history of previous falls and of fear of falling must be taken at the time of admission
- A cognitive assessment for everyone over 70
- Avoid new prescriptions of night sedation
- Medication review for older and more vulnerable patients to make sure they’re not taking medication that will make them more liable to fall
- Wear the appropriate footwear

The project, which began earlier this year, is already showing benefits, as patients feel more safe and reassured as a result of the assessments and extra care taken to prevent them falling. All wards involved have bought equipment to implement ‘FallSafe’ including gripper socks for patients, hand rails, and ultra low beds.

Dr Adam Darowski, the programme leader and consultant geriatrician at John Radcliffe Hospital, Oxford, said:

‘Everyone expects a hospital to be a safe place to be looked after when you are ill, and we must make every effort to ensure that is the case. We now know that there are effective things that we can do to reduce the chances of patients falling while they are in hospital, and we are looking at ways of ensuring that these things are done routinely.’

Peter Walsh, Chief Executive of Action against Medical Accidents, said:

‘Action against Medical Accidents (‘AvMA’ – the patient safety charity) is proud to be supporting this project. Patient falls result in a vast amount of avoidable harm and suffering. Many falls can be



avoided by implementing good practice consistently across the NHS. We need to dispel the myth that nothing can be done. That is what people used to say about hospital acquired infections, but now big advances are being made.'

Sarah Mussett, Head of Patient Safety Development at South Central Strategic Health Authority, said:

'A fall while in hospital will add to the patient's anxiety, can lead to an increased length of stay and a higher chance of the patient requiring long term care. Elderly people are already at increased risk of falling and that risk increases when they are acutely ill in hospital and generally frailer, however many falls can be prevented. Healthcare professionals working in hospitals across the NHS South Central region have been receiving specialist training to help them to prevent, manage and reduce harm from falls.'

Notes to Editors

- For further information please contact RCP PR Manager Linda Cuthbertson on 020 7935 1254, 0794 105 7494 or linda.cuthbertson@rcplondon.ac.uk.
- The full care bundle is attached to this email. For further details of the project and updates, please see the project website:
<http://www.rcplondon.ac.uk/resources/closing-gap-fallsafe>

'Watch Your Step' - Age UK's Falls Awareness Week 20-24 June 2011

FallSafe chimes with this year's Age UK Falls Awareness Week's theme of 'Watch Your Step'. As part of FallSafe, older and more vulnerable patients have a test for severe eyesight problems.



FallSafe project

Dr Adam Darowski

Clinical Lead, The FallSafe Project, on behalf of the Project Steering Group

The FallSafe Project: a quality improvement programme that uses specially trained nurses to introduce an evidence based care bundle to reduce inpatient falls. It is run by the Royal College of Physicians Clinical Effectiveness and Evaluation Unit in partnership with the Royal College of Nursing, the National Patient Safety Association, the Association for Victims of Medical Accidents and South Central Regional Health Authority. It is funded by The Health Foundation, an independent charity funded by the insurance industry, which specialises in Quality Improvement projects.

All hospital staff, from Chief Executive to Care Assistant, express a wish to make their patients' stay in hospital safer, and to reduce the risk of adverse events such as inpatient falls. Despite these sentiments, effective change has been the exception.


There are several reasons for this. Falls prevention is just one of a seemingly endless stream of initiatives and priorities for ward staff to cope with. There has been no clear statement or guideline of what falls reduction among inpatients consists of, and exactly what needs to be done, how, and by whom. Often there is no clear clinical leadership. There is a general feeling of despondency that inpatient falls cannot be prevented, that a lot is already done, with a lack of faith in further interventions. There is a need for training of staff in falls prevention, but currently such training is not readily available, and the number of people to be trained is enormous.

The FallSafe Project

The FallSafe project was designed to overcome this stalemate, taking the elements of care found in successful Random Control Trials (RCT) of inpatient falls reduction from the review by Oliver et al¹, and putting them together in a care bundle. The care bundle is evidence based in that individual elements have been used in successful studies of multifactorial interventions to reduce inpatient falls (but not in the sense that the whole bundle has been subjected to an RCT).

We know that in RCTs of multifactorial inpatient falls prevention, reductions in fall rates of 20-30% can be attained.

We recruited 16 wards of a variety of types (rehabilitation, psychiatry, trauma, medicine, surgery) across 12 hospitals in South Central Region. A band 5 or band 6 nurse (called a FallSafe lead) takes responsibility for introducing the elements of the care bundle onto the ward over several months, training and encouraging the ward team to use it, and auditing its introduction. Falls are recorded through the hospital risk management systems in the usual way.



We have provided training for the FallSafe leads, with about 8 training days over the two year period. Around half the time is spent on clinical aspects of falls prevention and half on improvement skills. There is support and encouragement from a project manager, peer support at our training days and through a website, and extra sessions for wider ward teams. Members of the project team have visited some of the wards to support the FallSafe leads, and to resolve local issues. We have also provided two additional resources: a plan of what to do after a fall (sent out by the NPSA as an alert to all Trusts, and published in the BMJ (2)), and evidence based guidance on what a medication review in the context of falls means. All the wards have started from different baselines and there have been marked improvements in processes, including reductions in use of night sedation and increases in screening for UTIs and postural hypotension, and we hope that will continue until the project finishes in March 2012 (and beyond!). Outcomes in terms of falls will not be available for six more months – we are trying to avoid a common problem of falls prevention projects - claiming success too soon.

Using the FallSafe Care Bundle in Safety Express

Many geriatricians will be involved with a project called Safety Express. One part of this aims to reduce inpatient falls using a care bundle approach. Despite the fact that our project is not yet finished, we have agreed to share our care bundle with Safety Express. It is based on the best available evidence, supported by simple process measures, and has been shown to be feasible to implement in a wide range of wards. We hope that will enable Safety Express to be implemented more easily, and contribute to its success. The package consists of 4 parts:

- the care bundle
- guidance notes on the details of the care bundle and its implementation
- evidence based guidance for doctors regarding medications and falls
- guidance on procedures to follow after an inpatient fall

These are available on the BGS website and can be downloaded. They have been endorsed by the BGS, and we encourage their dissemination and use.

Safety Express is part of the DoH QIPP (Quality, innovation, Productivity and Prevention) initiative. It is a national 2 year project starting in Autumn 2010. It aims to improve patient safety in four areas:

- inpatient falls
- pressure sores
- venous thromboembolism prophylaxis
- catheter related sepsis



FallSafe project

Information sheet

Background to the project

This is a Quality Improvement project funded by the Health Foundation (a health charity) and delivered by the Royal College of Physicians Clinical Effectiveness and Evaluation Unit (CEEU) in partnership with the South Central Strategic Health Authority (SHA).

The goal is to introduce best practice in the prevention and management of falls in clinical hospital wards, and to assess the impact on the number of falls. We wish to study what approaches are most successful in establishing best practice, and discover what the barriers are to its implementation.

The project will be overseen by a stakeholder steering group including the Royal College of Nursing (RCN), the National Patient Safety Agency (NPSA) and Action against Medical Accidents (AvMA). A final public report will be produced in Spring 2012.

Methodology and FallSafe project leads

The FallSafe project leads champion falls prevention on their ward. An initial baseline assessment of all measures is conducted before improvement work is introduced. Using the PDSA cycles (plan–do–study–act), they report monthly on the progress of introducing the elements of the care bundle, and the learning from introducing new process measures. They work closely with their multidisciplinary team to share any learning, issues or concerns and examine the monthly falls' rate. Patients' emotional responses to the interventions are collected in order to ensure the interventions are appropriate.

The FallSafe project leads are supported by the Royal College of Physicians CEEU project team, and by training in quality improvement by external management consultants. Face-to-face training days are held regularly across the region for training, and to share what has been learnt. Sessions covered delirium screening, root cause analysis, balance, gait and assessment for walking aids as well as all process measures in detail.

Care bundle and process measures

All patients	Call bell in sight and reach, safe footwear on patient, asked about history of falls, asked about fear of falling, urinalysis performed, no night sedation given
Higher risk patients	Full medication review requested, lying and standing BP recorded
Patients over 70	Cognitive screen completed

Sites engaged

In May 2010, chief executives across the South Central SHA were invited to nominate an inpatient ward to engage in the project. 17 were recruited in July 2010. There are currently 16 wards involved in the project.

Trust	Hospital	Ward type
Oxford Radcliffe Hospitals NHS Trust	Horton General Hospital	Trauma
Portsmouth Hospitals NHS Trust	Queen Alexandra Hospital	Respiratory medicine
Royal Berkshire NHS Foundation Trust	Royal Berkshire Hospital	Acute elderly care
Royal Berkshire NHS Foundation Trust	Royal Berkshire Hospital	Trauma
Solent Healthcare	St James' Hospital Portsmouth	Older adults
NHS Berkshire West	Prospect Park Hospital	Rehabilitation
Oxford Health NHS Foundation Trust	Fulbrook Centre, Churchill Hospital	Older adults
Basingstoke and North Hampshire NHS Foundation Trust	North Hampshire Hospital	Orthopaedic trauma
Basingstoke and North Hampshire NHS Foundation Trust	North Hampshire Hospital	Male medical
Hampshire Community Health Care	Petersfield Hospital	Non-acute GP admissions
Hampshire Partnership NHS Foundation Trust	Parklands Hospital	Older persons mental health
Isle of Wight NHS Primary Care Trust	St. Mary's Hospital	Discharge
Berkshire Healthcare NHS Foundation Trust	Prospect Park Hospital	Dementia
Nuffield Orthopaedic Centre NHS Trust	Nuffield Orthopaedic Centre	Elective surgery
Oxford Radcliffe Hospitals NHS Trust	The John Radcliffe Hospital	Geratology
Oxford Radcliffe Hospitals NHS Trust	The John Radcliffe Hospital	Acute medical admissions

Project duration

November 2009 – March 2012

More information

Email: lisa.byrne@rcplondon.ac.uk

Web: www.rcplondon.ac.uk/resources



The FallSafe care bundle

Bundle for all patients

- 1 A history of previous falls and of fear of falling is taken at the time of admission.*
 - > Admission processes and paperwork need to be changed to include these items.
- 2 Urinalysis is conducted on admission
- 3 New prescriptions of night sedation are avoided.
- 4 A call bell is in reach.
 - > The existing call bell system must be able to reach all patient beds and chairs.
 - > Systems are needed for rapid repair of faulty call bells.
- 5 Appropriate footwear is available and in use.
 - > Supplies need to be made available for patients without relatives or friends.
- 6 There is immediate assessment for and provision of walking aids.
 - > Physiotherapists must train nursing staff to provide appropriate walking aids at the time of admission to the ward, or as soon as they might be required.
 - > Walking aids need to be made available for each ward area, and need a suitable storage area.
- 11 Lying and standing blood pressure are taken with a manual sphygmomanometer.
- 12 Medication is reviewed with respect to cardiovascular and central nervous system acting medications (see enclosure).
 - > Nurses should request a review of medication to try and reduce the burden of drugs, particularly those associated with falls, and in patients who are unsteady, hypotensive, or have orthostatic hypotension.
- 13 Based on observation, toileting arrangements are assessed and planned (tailored to needs rather than the standard two-hourly arrangement).

Bundle for after a fall

- 14 After a fall, appropriate assessments and procedures are followed (see enclosure), including neurological observations in those who have hit their head or had an unwitnessed fall.
 - > Trusts have been mandated to include these procedures within their policies by July 2011.
- 15 A post-fall review (how can further falls be prevented for this patient) is conducted.
- 16 A complete incident report (all falls) is created.
- 17 A root cause analysis (lessons to prevent falls for future patients) is carried out for severe harm falls.

Bundle for older and more vulnerable patients

- 7 A cognitive assessment (mini-mental state examination (MMSE) or abbreviated mental test score (AMTS)) is conducted in all admissions aged >70yrs .
- 8 Those at risk are tested for delirium (confusion assessment method).
 - > Trusts must implement delirium screening as per NICE guidelines.
- 9 An assessment of risk versus benefit for use of a bedrail is conducted.
- 10 Visual assessment is conducted.
 - > The ability to recognise objects from end of the bed can be used as a screen for severe eyesight problems, and fuller assessment should be carried out if required.

* Long stay units may wish to amend to 'at least monthly' rather than 'on admission'

† For rehabilitation units, community hospitals, stroke units, orthogeriatrics units, care of the elderly units, and dementia units this should equate to all patients. In wards and units with a more mixed population, patients with a high vulnerability to falls is likely to be determined by local policy e.g. positive response to any of the NPSA 'four questions', total of Morse score or STRATIFY score, or all patients not fully independent and mobile.

Copyright © 2011 Royal College of Physicians of London. Redistribution is permitted, provided the RCP is credited as its source.

Supported by:



FallSafe guidance notes

Contents

	Page
i Observe: call bell in sight & reach?	1
ii Observe: safe footwear on feet?	1
iii Notes: asked about history of falls?	2
iv Notes: asked about fear of falling?	2
v Notes: urinalysis performed?	2
vi Drug card: given night sedation last night?	2
vii Notes: cognitive screen completed?	3
viii Charts: Lying and standing blood pressure recorded?	3
ix Notes: full medication review requested?	3

i Observe: call bell in sight & reach?

Dementia units who do not have a call bell system as too few patients who can use call bells can skip this measure.

Collect by walking around to observe your patients.

Measure applies to anywhere patients are sitting or lying at the time you do the check.

Hopefully *yes* is self-explanatory

n/a can be used for any patient too ill or too confused to use a bell, for patients walking around at the time, for patients with a staff member caring for them hands-on at the time, and for patients in the toilet (as too intrusive to check).

If you have patients in beds, chairs or day rooms where no bells can be made to reach, these count as *no* – and think about using some of the improvement money to fix this!

ii Observe: safe footwear on feet?

Take this observation at a time when most of your patients who are well enough are likely to be out of bed. Collect by walking around to observe your patients.

n/a can be used for any patient in bed and under the covers, any hoist-dependent patient, and any patient who has been offered safe footwear but *refuses* to wear it (not just forgets to wear it).

No should be recorded if patient has:

- > bare feet
- > socks only (but treaded non-slips socks – toasties or cositoes, etc – are ok)
- > anti-embolism stockings only
- > bandages or dressings only
- > shoes or slippers that are visibly too big
- > shoes or slippers that are visibly too small
- > lace up shoes without laces, or with trailing laces
- > shoes or slippers worn with squashed backs
- > novelty slippers
- > backless shoes or slippers except for very confidently mobile patients
- > foam disposable slippers except for very confidently mobile patients
- > high heeled shoes except for very confidently mobile patients.

Anything else should be good enough footwear to count as yes. For mobile patients sitting or resting on the bed but too polite to wear their shoes/slippers on the bed, you can count yes as long as they have safe shoes/slippers within easy reach (not shut away in a cupboard).

iii Notes: asked about history of falls?

Check their notes in all the places where you might reasonably expect this to be recorded given your local paperwork (eg falls assessment form, documentation on sections on problems with mobility) but don't feel you have to read their entire case notes. It doesn't matter what area of notes (nursing, medical physio or OT notes) or who asked the questions – nurse, doctor or physio or OT equally fine, as long as it is in case notes accessible to all the team.

If you have a patient where asking the question would feel embarrassingly inappropriate – e.g. a young person who is fully independent, or a patient who is unconscious and dying – you can count as *n/a*, but record why you thought this, and be consistent as you repeat the measurement on future occasions. If the patient is unable to answer – eg unconscious or severe dementia – and there is no carer to ask (neither on admission nor visiting later) you can count as *n/a*.

Otherwise *yes/no* should be self-explanatory (remember it is *yes/no* in terms of were they asked, not whether their answer is yes or no).

> **Note we have simplified this measure – you don't have to collect information on how well any fall was described any more.**

iv Notes: asked about fear of falling?

Check their notes in all the places where you might reasonably expect this to be recorded given your local paperwork (eg falls assessment form, documentation on sections on problems with mobility) but don't feel you have to read their entire case notes. It doesn't matter who asked the questions – nurse, doctor or physio or OT equally fine, as long as it is in case notes accessible to all the team.

If you have a patient where asking the question would feel embarrassingly inappropriate – eg a young person who is fully independent, or a patient who is unconscious and dying – you can count as *n/a*, but record why you thought this, and be consistent as you repeat the measurement on future occasions. If the patient is unable to answer – eg unconscious or severe dementia – and there is no carer to ask (neither on admission nor visiting later) you can count as *n/a*.

> Otherwise *yes/no* should be self-explanatory (**remember it is *yes/no* in terms of were they asked, not whether their answer is yes or no**).

v Notes: urinalysis performed?

The standard measure is whether urine has been dipped at least once **during each inpatient stay not necessarily on**

admission. If you have a long stay unit and that doesn't feel often enough for your unit, this will need further consideration.

Check their notes in all the places where you might reasonably expect this to be recorded given your local paperwork – maybe nursing admission proforma or bedside observation charts. If you can't find it with a reasonably good look-through you can count as no – if it was that hidden, it probably wouldn't be acted on anyway!

To count as *yes* the urinalysis result would **need to be recorded as at least pH number plus NAD or nil found, or if any abnormalities are detected that these are noted.**

If the records note they tried **more than once** to get a sample but failed you can count as *not applicable*. However, remember even in an incontinent patient a contact dip (eg pressing the urine stick against a wet sheet) is better than nothing – you need to treat results with a bit of scepticism in case there was a contaminant, but they could still point you towards an underlying problem.

vi Drug card: given night sedation last night?

What we are aiming for is no new night sedation prescribed (unless there were very good clinical reasons to do so) *but* to make data collection more straightforward, we are only asking you to count night sedation doses given. This means **you don't have to look back to find out what night sedation the patient was taking at home.** If you are making a difference and discouraging colleagues from prescribing new night sedation (or from administering PRN night sedation) we'd expect this to show up in a reduced number of doses given. If your team was already very good at avoiding this, we'd expect your numbers to at least stay steady and not increase. But there is no 'right number' of doses given.

Check their drug card and look for doses of night sedation given on the night time drug round the night before (usually 22:00 doses in most hospitals). Remember to look for stat or p.r.n. doses as well as those regularly prescribed. Remember which drugs are considered sedatives:

- > Temazepam etc (all other -azepam except clonazepam)
- > Chlordiazepoxide (*don't* count if it is being used for alcohol withdrawal)
- > Zopiclone, Zolpidem
- > Trazodone (*don't* count if the patient has a diagnosis of depression and trazodone is being used to treat depression)
- > Amitriptyline (*don't* count if being used to treat depression or a small dose to reduce urinary frequency overnight or if being used as part of pain relief).

Count as *n/a* any patients who have *not* been on the ward for at least one night or who are *not* able/allowed to take oral medication.

vii Notes: cognitive screen completed?

You only have to collect this for patients in your sample of 20 patients who are aged over 70 years.

Any format of cognitive screen is ok (e.g. AMTS, MMSE, etc.) – either ones that are already in standard use in your trust or as part of your improvement work you will be introducing the AMTS template you were given last FallSafe day.

Check their notes in all the places where you might reasonably expect this to be recorded given your local paperwork but don't feel you have to read their entire case notes. It doesn't matter what area of notes (nursing, medical physio or OT notes) or who asked the questions – nurse, doctor or physio or OT equally fine, as long as it is in case notes accessible to all the team. A good place to look is doctor's admission notes – they may record just the score rather than detail questions eg 'AMTS 7/10' but that is still ok.

You can count as N/A if the patient is unable to answer – eg unconscious or aphasic or non-verbal. Also if they don't have good spoken English and no translator is available. Just being very confused wouldn't be a reason to put *n/a* – you can still try, and record as *0/10* if that is all they can do.

Otherwise *yes/no* should be self-explanatory

viii Charts: Lying and standing Blood Pressure recorded?

You only have to collect this for patients in your sample of 20 patients who are considered to be at *higher risk* of falls. In some FallSafe wards all patients are counted as high risk, for other FallSafe wards only some (eg those with risk scores over a certain number) – follow your local policy.

We'd expect this to be recorded on observation charts.

You can count as *n/a* if the patient is unable to stand/too ill to stand/unable to cooperate with staff.

Otherwise *yes/no* should be self-explanatory.

ix Notes: full medication review requested?

You only have to collect this for patients in your sample of 20 patients who are at 'higher risk' of falls. In some FallSafe wards all patients are counted as high risk, for other FallSafe wards only some (eg those with risk scores over a certain number) – follow your local policy.

You are measuring that the *request* has been made, not the response. Check their notes in all the places where you might reasonably expect this to be recorded given your local paperwork but don't feel you have to read their entire case notes. The logical place to put the request would be for nurses to write the request or to stick a request label in the current section of the medical notes where it should be seen next doctors' round or MDT meeting.

You can count as *n/a* if the patient is on no medication at all.

Otherwise *yes/no* should be self-explanatory. ■

Combined Measurement Form

Q. When do I need to collect this information?

A. Every month. Ideally you should collect on the same date (or as close as possible).

Q. Who should I collect the information from?

A. We want you to collect it from observing and checking the notes of 20 patients on your ward (or all patients if you have fewer than 20). They don't have to be 'new' patients since you last took the measures. Some items you'll need to complete for all patients, but on wards with younger and lower risk patients some items won't need completing for these lower risk patients. To avoid any temptation to pick and choose which 20 patients:

- If you are a small ward, collect it from the twenty patients that come first in handovers
- If your ward has two teams, take the first ten patients from each team
- and so on if you have three teams, etc.

Q. How should I collect the information?

A. Through some quick bedside observation at a time of day when most of your patients who are well enough would be out of bed, and through checking the notes at anytime. **Remember the check doesn't just apply to nursing notes** – you might well find a cognitive screen completed in doctors' notes and a history of falling in OT notes. So any notes that are easily accessible on the ward should be checked (but not physio or OT notes that are held in a separate place).

Example

	Sample of 20 patients (or all patients if ward has fewer than 20 patients)																				Totals (yes plus N/A out of total) Please refer to helpnotes.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Use to track patient names/initials/bed number/room number if you need to	FH	AB	ST	YH	LT	YT	TY	UP	KL	MJ	NM	HK	LT	FR	GT	HY	DE	ES	FR	TT	
All 20 patients:	If small ward with fewer than 20 patients write total here:																				
<u>Observe:</u> call bell in sight & reach?	Y	N	n/a	Y	Y	Y	Y	Y	n/a	Y	Y	Y	Y	N	Y	Y	n/a	N	Y	Y	14/20 + 3 n/a
<u>Observe:</u> safe footwear on feet?	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	Y	n/a	n/a	N	N	14/20 +2 n/a
<u>Notes:</u> asked about history of falls?	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	18/20
<u>Notes:</u> asked about fear of falling?	N	N	N	Y	N	N	Y	n/a	n/a	N	N	N	N	N	n/a	n/a	N	Y	Y	Y	5/20 + 4n/a
<u>Notes:</u> urinalysis performed?	Y	Y	Y	Y	N	Y	Y	N	N	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	14/20
<u>Drug card:</u> given night sedation last night?	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	Y	N	2/20
For any of the 20 pts age 70+:	Number of patients AGED 70 +:																				13
<u>Notes:</u> cognitive screen?	Y	N	-	-	-	-	-	Y	n/a	Y	Y	Y	Y	N	Y	-	-	N	Y	Y	9/13 + 1n/a
For any of the 20 patients who are 'higher risk':	Number of higher risk patients:																				8
<u>Charts:</u> L&S BP recorded?	Y	Y	-	-	-	-	-	-	-	Y	Y	N	N	n/a	-	-	-	-	N	-	4/8 + 1n/a
<u>Notes:</u> full medication review requested?	Y	Y	-	-	-	-	-	-	-	Y	Y	N	Y	Y	-	-	-	-	Y	-	7/8

* In some FallSafe wards all patients are counted as high risk, for other FallSafe wards only some – follow your local policy

***** Sample of 20 patients (or all patients if ward has fewer than 20 patients). Remember 'not documented=not done' *****

FallSafe Lead:	WARD:																				TOTALS (YES plus N/A out of total) Please refer to helpnotes.	
DATE:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Use to track patient names/initials/bed number/room number if you need to																						
All 20 patients:	If small ward with fewer than 20 patients write total here:																					
<u>Observe:</u> call bell in sight & reach?																						
<u>Observe:</u> safe footwear on feet?																						
<u>Notes:</u> asked about history of falls?																						
<u>Notes:</u> asked about fear of falling?																						
<u>Notes:</u> urinalysis performed?																						
<u>Drug card:</u> given night sedation last night?																						
For any of the 20 pts age 70 +:	Number of patients AGED 70 +:																					
<u>Notes:</u> cognitive screen?																						
For any of the 20 patients who are 'higher risk':	Number of higher risk patients:																					
<u>Charts:</u> L&S BP recorded?																						
<u>Notes:</u> full medication review requested?																						

** In some FallSafe wards all patients are counted as high risk, for other FallSafe wards only some – follow your local policy*



FallSafe project

Newsletter

Key dates

FallSafe public events	Thurs 1 st March 10-4pm (London) Thurs 8 th March 10-4pm (Manchester)
Project leads' celebration event	Fri 27 th January 10-2pm, Newbury
FallSafe Steering Group meeting	Thurs 2 nd February 10-2pm, Heberden Room, RCP
Health Foundation celebration event	Wed 27 th June, London

FallSafe project update

➤ Thank you those of you who made it to the Steering Group (SG) meeting last week. Please find the minutes attached.



24 Nov Steering
Group Minutes final.d

For those of you who were unable to attend I am happy to share with you an overview of how the new falls prevention e-learning package will look (please note the images are "holding" images). A special thank you to Frances, Jill, Julie and Adam for their hard work



_fallsafe_art_directio
n_v02.ppt

➤ A draft agenda for the public events in March is attached. Please contact me should you be able to speak/attend. The audience for these events is falls and safety leads, falls coordinators, specialist nurses, consultants (with special interest) and risk managers.



DRAFT Programme
March 2012 v2.doc

➤ A communications calendar has been created to ensure we are aware of upcoming events between now and April. Please take a look at the attached and notify me of anything missing.



comms calendar.xls

➤ Please submit any outstanding expenses to me asap using the updated expenses form



Expenses policy and
claim form 2011.xls

Health Foundation updates

➤ A draft of the final report for the Health Foundation was shared earlier this month. As always your contributions would be very welcome and the Health Foundation is particularly keen to hear about the experience from steering group members.



Final report CtG 14
11 11.doc

Further reading

Patient safety in the UK and US, Part 1: The Doctors

<http://community.the-hospitalist.org/2011/09/04/patient-safety-in-the-us-and-uk-part-i-the-doctors/>



FallSafe project newsletter October 2011

Case study

Patient A is registered partially blind but able to bear weight with use of a frame and transfer from bed to chair with assistance from staff. They have a BMI of 35+ and are type II diabetic.

The general awareness of the project and the way that it has brought falls safety to the front of every member of staff's mind meant that this patient was recognised as being at high risk of falling as soon as he came in. Staff were making sure that the bed was raised to an optimum height to assist him to stand

and transfer safely. His walking aid has always been there when he needs it. He has a falls care plan and all staff attend to his personal care needs.

The project has enabled the ward to buy our first ultra low bed which decreased any harm that could be done from the patient rolling out of bed as he liked to sleep on the edge of the bed. Cot sides were not suitable because he did not like having them on and may have caused himself damage as he could not see them properly.

Danielle Manley, FallSafe project lead, dementia ward

Project news

The FallSafe project continues to show great improvements in falls prevention and wards continue to promote the work of FallSafe on their ward and wider. The final training day for the FallSafe project leads was held in September. It was great to hear first hand about the enthusiasm of the teams around falls prevention.

This month formal analysis of the data from the quality improvement work began. The team will also look at falls rates for a 6 month period when the full care bundle was delivered on the wards and compare against the same 6 months prior to the improvement work. The findings will be available in a public report in March 2012.

The team is also working closely with NHS South Central to produce a new interactive falls prevention E-learning package. The package will cover key topics such as delirium, medication, visual assessment, gait and balance alongside patient stories and clinical skills. The package will be available via the NHS Learning and Management system in April 2012.

An abstract has been submitted for the International Forum on Quality & Safety in Healthcare 2012

FallSafe lead successes

- MDT involvement
- pro-change staff attitude
- FallSafe lead as point of reference
- slippers! Small intervention with a big impact
- having a pharmacist on board
- dementia awareness raised
- fewer falls
- more medication reviews
- urinalysis- higher percentage age being done
- Increased identification of patients at risk of falling
- reduced night sedation
- fear of falling question incorporated into care plan.

FallSafe challenges

- Type of patients- more elderly
- staff to patient ratio
- time to do lying and standing BP
- a lot of organisational change and competing priorities
- resistance from some staff to changes
- turnover of staff
- time to deliver due to day-to-day demands
- involving GPs
- managing the links / boundaries with pharmacy care and other hospital departments.

Patients' feedback on FallSafe

'I feel very safe and assured about the care I am getting.'

'Pleased so much being done to prevent falls.'

'With all this care and attention I am not afraid of falling here.'

'I will feel safe during my stay.'

For more information about the project:

Web

www.rcplondon.ac.uk/resources

Email lisa.byrne@rcplondon.ac.uk

This newsletter will be distributed on a 3 monthly basis. If you wish to be removed from the mailing list please click here



Getting to grips with inpatient falls: learning from the FallSafe project

Programme

1 March 2012 Holiday Inn London Kensington Forum

8 March 2012 Mercure Manchester Piccadilly Hotel

0930 Registration and coffee

1000 Welcome, house keeping and aims and objectives of the day

Kate Hudson, Berkshire Consultancy

1010 Opening address

Dr Kevin Stewart, Royal College of Physicians (London)

Jan Husk, Royal College of Physicians (Manchester)

1020 The FallSafe Project: aims, model, measurement and findings

Dr Adam Darowski, John Radcliffe Hospital, Oxford; FallSafe Project clinical lead

Dr Frances Healey, National Patient Safety Agency; FallSafe Project clinical lead

1100 Coffee

1115 Talking points: sharing the implementation experience

In smaller groups, learn and discuss the challenges, surprises and successes encountered during FallSafe's implementation (see separate sheet)

1300 Lunch and networking

1400 Seminars

One of the following:

1. How to accelerate improvement in anything from your hospital falls rate to your tennis game

Dr Noeleen Devaney, Berkshire Consultancy

2. Raising the profile of falls prevention in your hospital

Julie Windsor, Portsmouth Hospitals NHS Trust

3. Managing change and resistance

Kate Hudson, Berkshire Consultancy

1450 Coffee

1500 The new falls prevention e-learning tool

Dr Frances Healey, National Patient Safety Agency

1510 Q&A and key themes from the day

1530 Close



Getting to grips with inpatient falls: learning from the FallSafe project

Talking points: sharing the implementation experience

1 March 2012 Holiday Inn London Kensington Forum

11.15-1300

In smaller groups, learn and discuss the challenges, surprises and successes encountered during FallSafe's implementation

All will have a chance to hear from the FallSafe Leads and attend Talking Point 1:

1. **FS Leads: how we did it**

And have a choice of two of the following:

2. **Getting multidisciplinary teams involved**

Securing engagement at ward level and above

Dr Adam Darowski, John Radcliffe Hospital, Oxford; FallSafe Project clinical lead

3. **The patient and fear of falling**

Why is this an important question to ask?

Dr Frances Healey, National Patient Safety Agency; FallSafe Project clinical lead

4. **Lying/standing BP: overcoming the challenge**

The importance of taking it and being able to

Julie Windsor, Portsmouth Hospitals NHS Trust

5. **Maximizing mobility needs team work!**

Involving nursing and therapies to make walking aids available for patients

Jill Phipps, Southern Health NHS Foundation Trust

Each session will be 25-30 minutes



Getting to grips with inpatient falls: learning from the FallSafe project

Talking points: sharing the implementation experience

8 March 2012 Mercure Manchester Piccadilly Hotel

11.15-1300

In smaller groups, learn and discuss the challenges, surprises and successes encountered during FallSafe's implementation

All will have a chance to hear from the FallSafe Leads and attend Talking Point 1:

1. **FS Leads: how we did it**

And have a choice of two of the following:

2. **Getting mdt's involved**

Securing engagement at ward level and above

Dr Adam Darowski, John Radcliffe Hospital, Oxford; FallSafe Project clinical lead

3. **The patient and fear of falling**

Why is this an important question to ask?

Dr Frances Healey, National Patient Safety Agency; FallSafe Project clinical lead

4. **Lying/standing BP: overcoming the challenge**

The importance of taking it and being able to

Julie Windsor, Portsmouth Hospitals NHS Trust

5. **Learning from The Northwest Prevention and Management of In-Patient Falls Audit**

How to evaluate the effectiveness of your falls prevention programmes

Katherine Lewis, Stockport NHS Foundation Trust

Chris Stanley, St Helens and Knowsley Hospitals NHS Trust

Each session will be 25-30 minutes



Job title:

Name: (optional).....

Getting to grips with inpatient falls: learning from the FallSafe project

London Evaluation Form

1. How useful did you find the whole day?

Extremely useful [] Useful [] Fairly useful [] Not useful []

2. What was your overall impression of the event?

	Excellent	Good	Fairly good	Poor	Very poor
Programme	[]	[]	[]	[]	[]
Organisation	[]	[]	[]	[]	[]
Catering	[]	[]	[]	[]	[]
Venue	[]	[]	[]	[]	[]

3. Do you feel the event met its objectives?

By the end of day, have you:

a) Understood the FallSafe care bundle, its successes and challenges. Yes [] No []

Please comment

.....
.....

b) Identified procedures needed to enhance inpatient falls prevention locally. Yes [] No []

Please comment

.....
.....

c) Identified strategies to engage multidisciplinary team support to drive change together.

Please comment

Yes [] No []

.....
.....

4. How useful did you find the session FallSafe Project: aims, model, measurement and findings?

.....
.....

5. Of the three Talking Points you attended, how useful to you personally was each session?

	Extremely useful	Useful	Fairly useful	Not useful	Not directly relevant in current post but of interest
1. FallSafe Leads: What we did	[]	[]	[]	[]	[]
2. Getting mdt's involved	[]	[]	[]	[]	[]
3. The patient and fear of falling	[]	[]	[]	[]	[]
4. Lying/standing BP	[]	[]	[]	[]	[]
5. Maximising mobility needs team work	[]	[]	[]	[]	[]

Please comment

.....

.....

.....

6. Please indicate which seminar you attended and comment on what you thought about it? (Structure, length of time, usefulness)

- 1. How to accelerate improvement in anything from your hospital falls rate to your tennis game []
- 2. Raising the profile of falls prevention in your hospital []
- 3. Managing change and resistance []

Please comment

.....

.....

7. What impact will this event have on your future practice?

.....

.....

8. How do you think we could have improved the overall structure of the day?

.....

.....

9. Is there anything we did not do today that you would have liked to see included in the workshop?

.....

.....

10. If you have any additional comments or suggestions please write them here:

.....

.....



Getting to grips with inpatient falls: learning from the FallSafe Project

Two highly successful FallSafe workshops held in London and Manchester in March 2012

reached

107 different trusts

9 regions of England plus, Isle of Man, Wales and Northern Ireland

60% acute, 21% community, 8% mental health, 5% combination, 5.3% other

65% nursing, 20% therapies, 11% medical, 3% directors of patient safety, 1% audit.

31% held management positions.

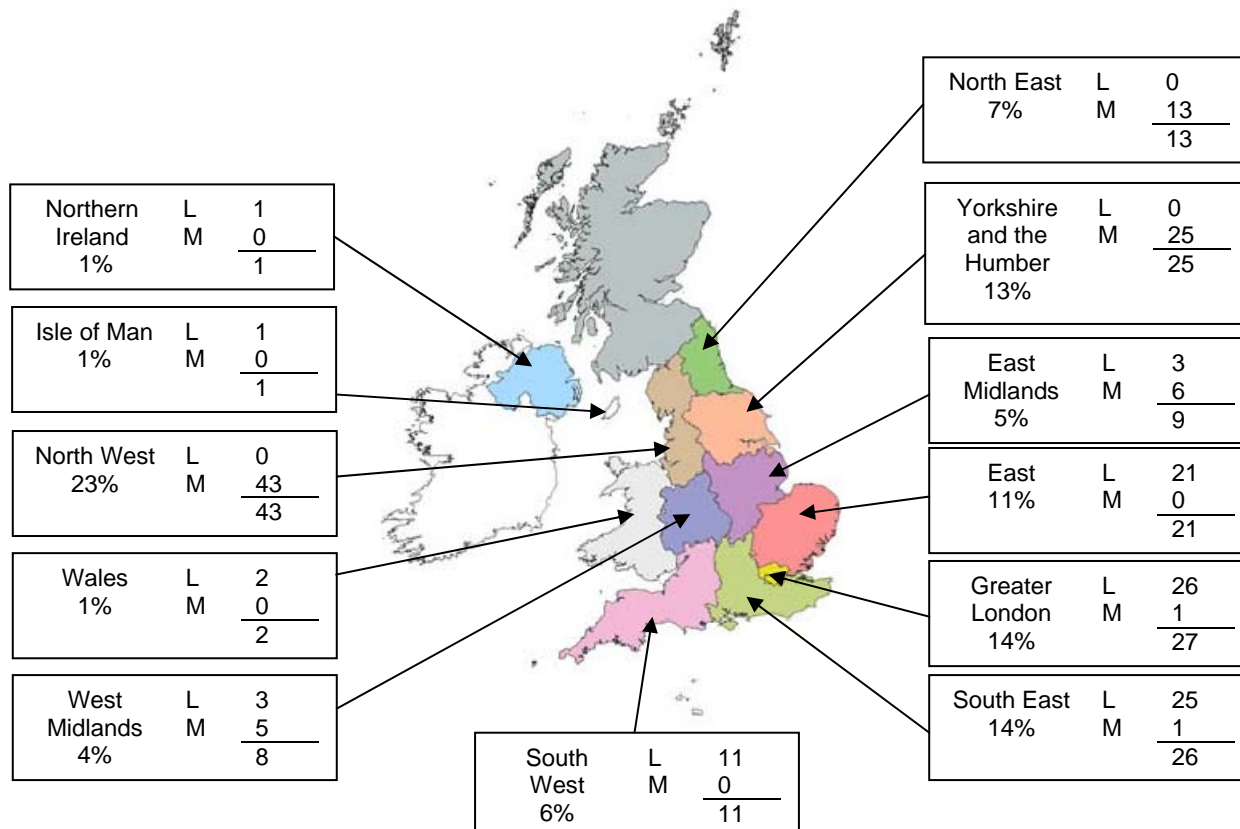
High attendance rate

Both events were oversubscribed above the 206 who were registered. Attendance at the actual events was high (91%) given the demanding nature of delegates' jobs and the potential for them not to be able to attend at the last minute: 187 attendees (91%).

	N° Registrations	N° Attendees	
London	99	93	94%
Manchester	107	94	88%
Total	206	187	91%

Regional and country spread

The 2 events reached a total of 107 different trusts, with typically 1 to 3 delegates attending from each. They attracted delegates from across the 9 regions of England and from Wales, Isle of Man and Northern Ireland:



It is notable that whilst the project wards were based in the South, interest in, and awareness of, the work was across most of the UK, with representation greatest from the North West of England.

Setting diversity

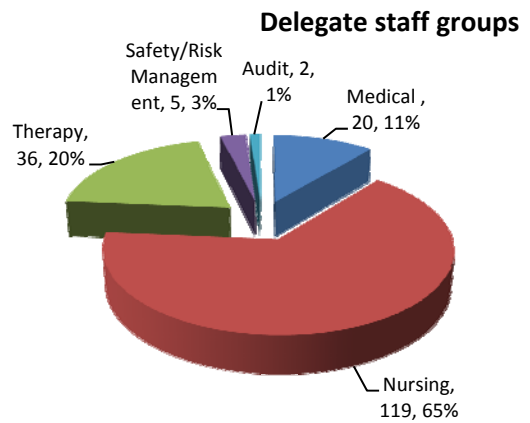
Delegates came from a range of settings, with the majority (60%) from acute care, which is representative of the general pattern of NHS inpatient provision.

Acute	113	60%
Community	40	21%
Mental Health	15	8%
Acute/Community	5	3%
Community/Mental Health	3	2%
Other	5	2%
Acute/Mental Health	1	1%
Outpatient	1	1%
Isle of Wight	2	1%
Isle of Man	1	1%
Northern Ireland	1	1%
Total	187	100%

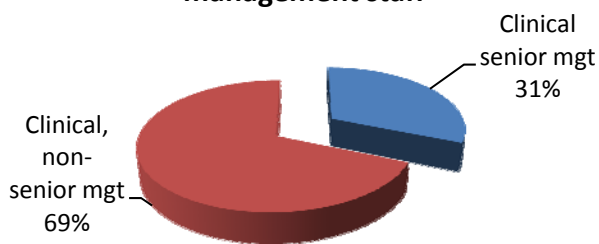
Range of job titles

Of the attendees who provided their job title (182):

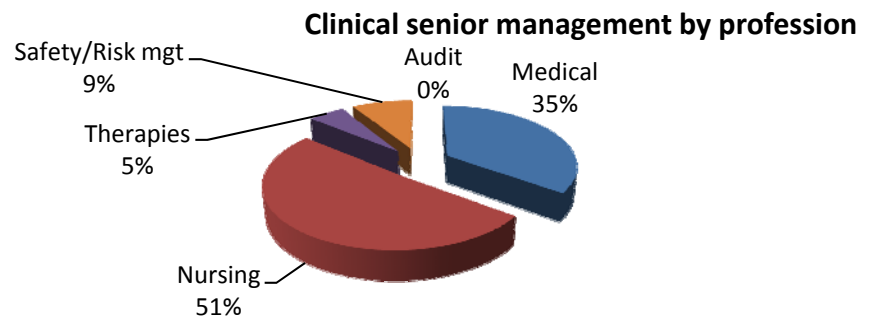
- 65% were nurses (119)
- 20% therapists (occupational or physio, 36)
- 11% medical (20)
- 3% directors of patient safety (4)
- 1% audit (2)



Clinical senior management and non-management staff



Of the 182, 31% held senior clinical management roles: consultants, nursing directors, unit managers, matrons, nurse managers, head of patient safety and head of therapy services, with the breakdown per profession as follows:



Of the 119 nursing staff who attended, 24% held a senior clinical management role; of the 36 therapist attendees, 8% were senior clinical managers.

Ward level staff therefore comprised 70% of attendees, reflecting Fallsafe's ward-based, nurse-led, multidisciplinary team approach. That 30% attendees were from clinical management perhaps indicates the increasing importance of the issue within the NHS and for those individual trusts.

		% of total delegates (182)	Senior Mgt	
Medical	20	11%	20	
Nursing	119	65%	29	
Therapies	36	20%	3	
Safety/Risk Mgt	5	3%	5	
Audit	2	1%	0	
Total delegates	182	100%	57	31%

% to total (182)	% within staff group	Senior Mgt
16%	24%	Nursing
2%	8%	Therapies

Workshop delivery

Representative feedback

With 94% of those attending completing the evaluation form (176 respondents), feedback for the day was representative of opinion:

	N° Attendees	N° Evaluation Forms	
London	93	87	94%
Manchester	94	86	95%
Total	187	176	94%

Comments received per question varied according to question style. Where delegates had the option of a 'yes'/'no' tick box and commenting, 26-28% not only ticked but commented. Where only commenting was possible, 77-81% did so, with the lower value representing the proportion relative to all attendees (187) and the higher value representing the proportion relative to the number who completed an evaluation form (176).

Aims and objectives met

The aim of the workshops was:

**to disseminate the FallSafe falls prevention care bundle
and share the learning from its implementation**

Delegates felt that the day delivered its stated objectives:

By the end of the day:

- a) 100% had understood the FallSafe care bundle, its success and challenges
- b) 100% had identified procedures needed to enhance inpatient falls prevention locally
- c) 96% had identified strategies to engage multidisciplinary team support to drive change together

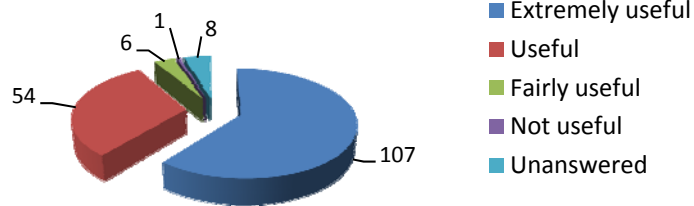
	A Understood FallSafe	B Identified procedures	C Identified strategies
Yes	176	174	165
No	0	0	6
Unanswered	0	2	5
% respondents (176)	100%	98%	94%
% respondents to the question	(176/176) 100%	(174/174) 100%	(165/171) 96%

Of the 6 who did not feel that they had identified strategies to engage multidisciplinary team support, only 4 commented, and their comments suggest that they would have preferred a presentation of what those strategies should be rather than picking and choosing from the ideas presented during group discussion (the talking points) where the ideas of implementers and delegates were shared.

An extremely useful day

Feedback was overwhelming positive: 92% of delegates felt that, overall, the whole day (both) was extremely useful (61%) or useful (31%), with 4.5% not answering the question and only 3.5% considering the day fairly or not useful.

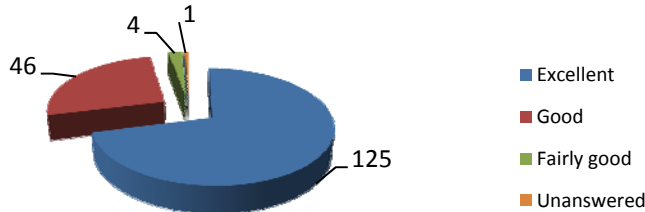
How useful did you find the whole day?



	All respondents (176)		Respondents who answered (168)	
Extremely useful	107	61%	63.7%	96%
Useful	54	31%	32.1%	
Fairly useful	6	3%	3.6%	
Not useful	1	1%	0.6%	
Unanswered	8	5%	-	
Total	176	100%	100%	

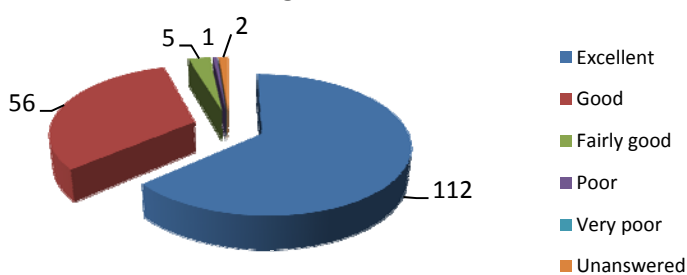
This was reflected in the feedback on the days' organisation and programme, which also received high praise:

Organisation



Category	Count	Percentage	Total
Excellent	125	71%	97%
Good	46	26%	
Fairly good	4	2%	
Poor	0	0%	
Very poor	0	0%	
Unanswered	1	1%	
Total	176	100%	

Programme



Category	Count	Percentage	Total
Excellent	112	64%	96%
Good	56	32%	
Fairly good	5	3%	
Poor	1	1%	
Very poor	0	0%	
Unanswered	2	1%	
Total	176	100%	

Programme Aspects

Well-received project overview

The opening session, delivered by the clinical leads Dr Darowski and Dr Healey, provided an overview of the FallSafe project, bundle and findings. When asked *How useful did you find the session* 100% ticked 'yes' to useful and added comments of 'very useful', 'extremely useful' or 'brilliant – very inspiring' and valued the presenters' clear and concise style.



Good to have an update on progress and success and how the future will be driven forward.

Falls Prevention Coordinator

Very good background. Thought provoking. Reassuring of the work we have done. Motivation to drive forward.

Matron Community Hospitals

Positive, real, doable. Pleased Mental Health was involved - expected it not to be. (Sorry!)

Physiotherapist

Although we are currently using a care bundle approach, it gave us other improvements we could make.

Head of Nursing for Clinical Quality and Innovation.

Understood the rationale and findings and hope the project continues and is re-done in two years to see if it has been effective.

Clinical Scientist

Useful. Reinforces multifactorial approach to reducing falls/harm rate.

Assistant Risk Manager (Falls Risk Lead)

Learning from others - Talking points

At each event, 5 topics concerning different aspects of FallSafe implementation were on offer, of which delegates attended 3 sessions: an obligatory session with two or more FallSafe leads and a choice of 2 others:

- **Getting multidisciplinary teams involved** (Dr Adam Darowski)
- **The patient and fear of falling** (Dr Frances Healey)
- **Lying/standing BP: overcoming the challenge** (Julie Windsor)
- **Maximizing mobility needs team work!** (Jill Phipps, London only)
- **Learning from The Northwest Prevention and Management of In-Patient Falls Audit** (Katherine Lewis and Chris Stanley, Manchester only)

These were facilitated discussions to encourage and enable delegates to share their tips, strategies and difficulties just as much as hear those of the FallSafe implementers; as well as to suit a different learning style.

Group size varied depending on demand for that topic, attendees changed groups on the day and, therefore, the number of ticks for 'useful'/'not useful' were not interpretable, but at registration, interest per topic was:

	London	Manchester
MDT & fear of falling	18	20
MDT & BP	16	7
MDT & mobility	17	23
Fear of falling & BP	17	8
Fear of falling & mobility	5	16
BP & mobility	6	5

demonstrating that multidisciplinary team engagement was the issue that most concerned delegates.

All delegates attended a session with the FallSafe leads and so the rating of them on the evaluation form was interpretable: for 73% the opportunity to speak with the implementers in small groups was 'extremely useful' or 'useful'. This was reflected in the comments: 21 chose to remark on the value of that opportunity:

The FallSafe leads had very clear and practical advice. Thank you.
Consultant

As a service coordinator, it was useful to hear the pitfalls and successes in driving new initiatives/ways of working into practice from the FallSafe leads. Their enthusiasm came across!
Falls Prevention Coordinator

I was really pleased with the feedback from the FallSafe leaders with regards to physio support about nursing staff issuing walking equipment.
Physiotherapist

What I have envisaged as a struggle, the teams who put into practice went through those struggles and overcame many.
Occupational Therapist

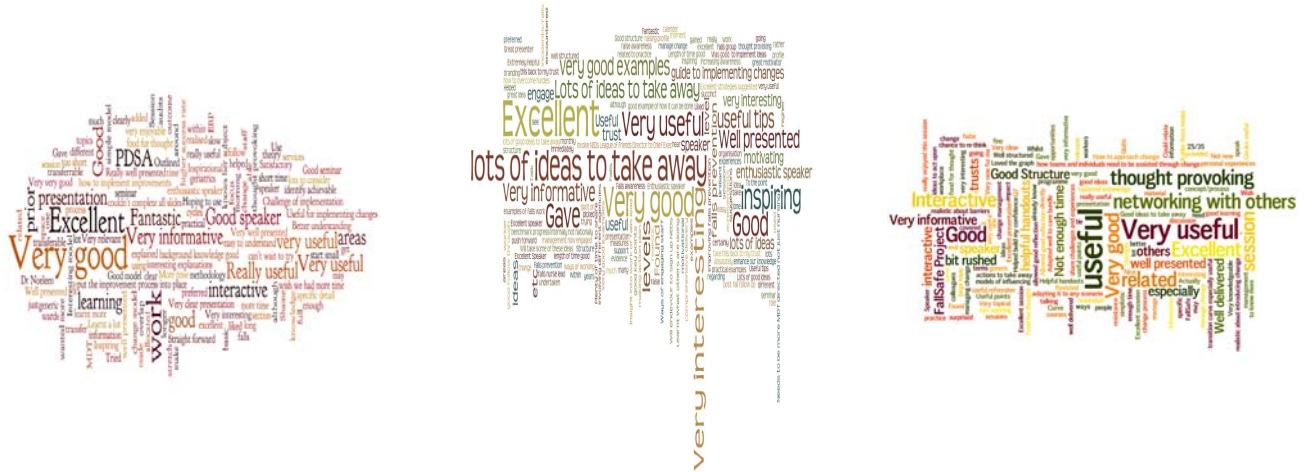
As will become clear below in the key themes of the comments written, evaluators were free to comment on and prioritise what mattered most to them. Demand for more on implementation was high: 20 commented that they would have liked more discussion time (talking points), 13 specifically requested more on implementation at the events, 7 would like more events in the future to share progress (individual and project) and 26 commented on the value of the networking and ideas they had gained during the day from making contact with others outside their trust. The latter testifies to the value they extracted from the talking points and the fact that they happened early in the day.

Seminars – up-skilling for improvement

These focused on improvement implementation strategies:

- a. **How to accelerate improvement in anything from your hospital falls rate to your tennis game**
(Dr Noeleen Devaney, Berkshire Consultancy)
- b. **Raising the profile of falls prevention in your hospital**
(Julie Windsor, clinical nurse specialist, Portsmouth Hospitals NHS Trust (FallSafe site), FallSafe steering group member)
- c. **Managing change and resistance**
(Kate Hudson, Berkshire Consultancy)

All three were enthusiastically commented on. The general impression across all three was that they were delivered by great, professional, enthusiastic and knowledgeable speakers who inspired their listeners.



Demand was highest for the seminar specific to FallSafe (b) - how to promote falls prevention within your trust; then (a) - how to implement an improvement project, indicating delegates’ dedication to the issue at hand and awareness that it is an “improvement” project. Reactions were effervescently positive except for a very few, generally matrons or above, who felt they had heard it before in terms of seminars (a) and (c). Illustrating the receptiveness of ward level staff to the development opportunities improvement work entails.

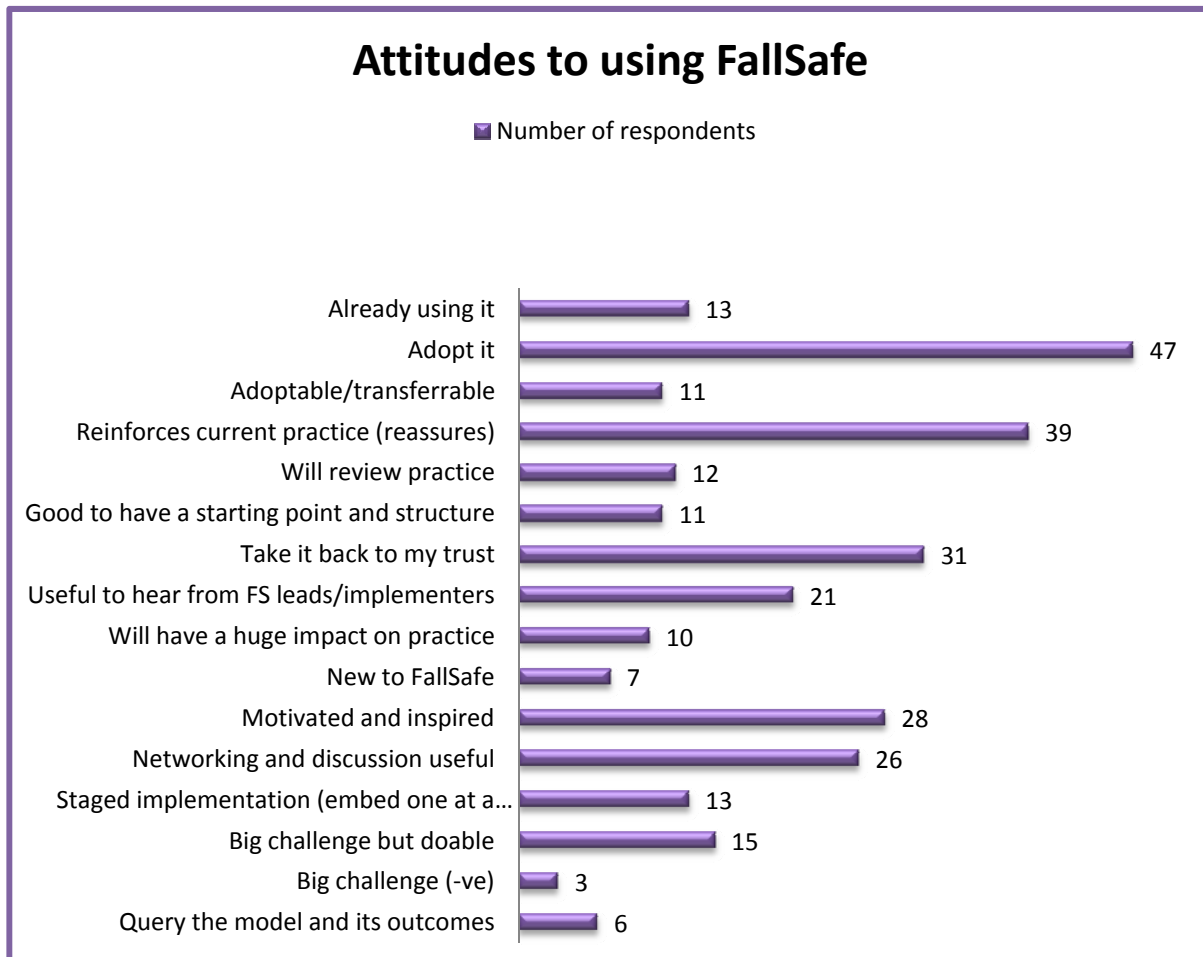
E-learning

This was the penultimate session of the day. Delegates were presented with screenshots of the beta version of the course – there have since been three further iterations. Prioritising it amongst their comments was important for 13. All of those comments were extremely positive:

- E-package looks good: interesting and informative; suitable for all grades of MDT. The section on vision looks good and may assist understanding the patient’s view.*
Unit Manager
- Really looking forward to the e-learning package: looks good! Thank you.*
Falls Coordinator
- High interest in e-learning pack. Will promote its use in the future.*
SP Nurse
- I will be sharing the e-package with governance/physical health groups.*
Unit Matron
- Feel that we need to include the e-learning of the care bundle with mandatory training.*
Consultant

Sustainability

Demand, and need, for FallSafe is evidenced by the events' high attendance rate and by respondents' comments, particularly those that committed them to action:

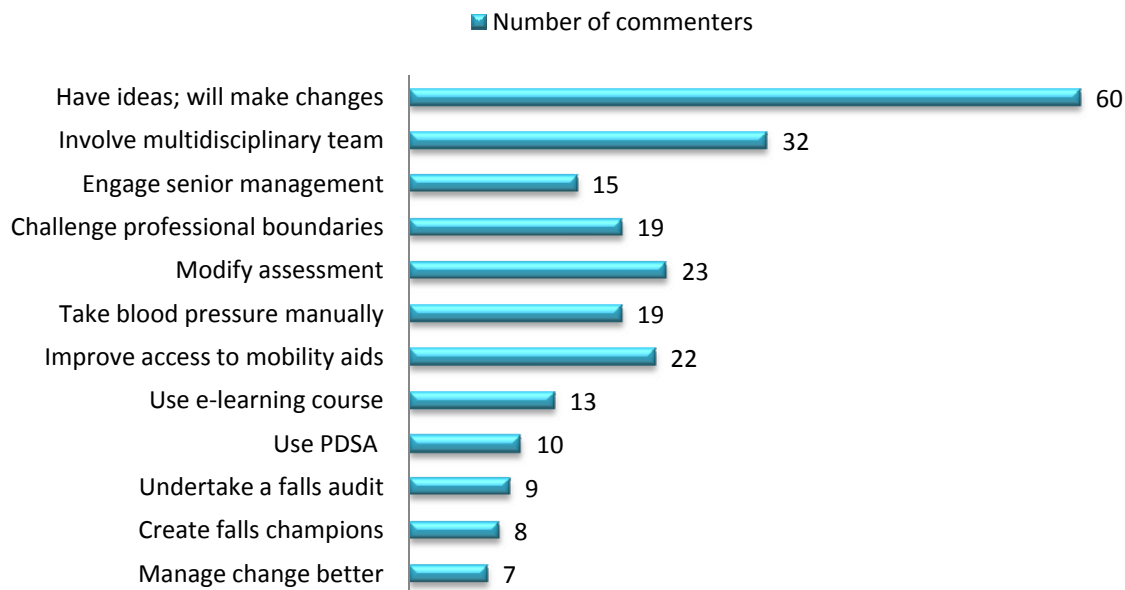


It was clear that 13 had already adopted the FallSafe model. Beyond that, 47 committed themselves to adopting it, 11 considered it adoptable or transferable, 11 found it reassuring and reinforcing of the headway they were making with falls prevention (whilst giving them new ideas for the way forward), 12 would review their practice against it and 11 were glad to have an evidence-based project as a starting point. Taking it back to their trust (promoting it to “anyone that would listen”) was a comment for 31: again, perhaps, reflecting FallSafe’s focus on, and delegate attendance by, ward-level staff who would have to persuade management and senior management of the case for it. The project team intend to support them in this by sending every nursing director a CD copy of the e-learning course and the FallSafe Toolkit (care bundles and ‘how to’ guide).

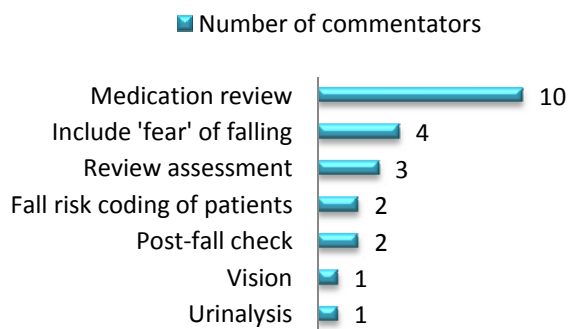
Commitment to change

A key theme of the written feedback was that delegates had been given ideas and had identified changes/improvements they could make. This took a general and specific tone:

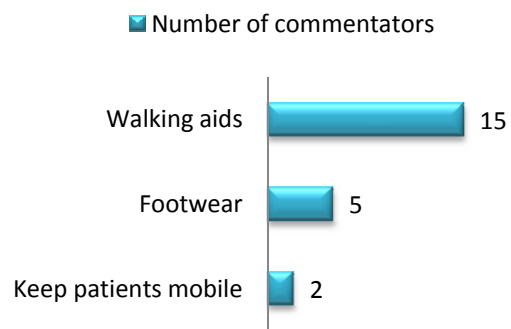
Commitment to make changes



Modify assessment (23)



Improve access to mobility aids (22)



It demonstrates that the events and implementers had got their key messages across:

- Walking frames and mobility aids need to be made available out of hours
- Medical staff need to be asked to review patients' medicines in terms of the fall risk they pose
- Both imply sharing responsibilities in the interests of the patient: nurses need to be trained to issue mobility aids; and doctors' need to be challenged about the medicines they prescribe
- Lying and standing blood pressure needs to be taken manually – a skill most staff need to relearn
- The FallSafe methodology requires a multidisciplinary team supported by senior trust management

Refresh my clinical priorities and get back to basics in educating ward staff and junior therapists on falls. I will relearn manual lying and standing BP; bring falls to the attention of higher management and trial QI falls project on 1-2 wards; review trust falls tools; challenge dignity policy in the trust to be able to identify falls patients with signs/colour coding.

Band 7 Occupational Therapist

Many successes already introduced in practice. The challenge is to maintain focus, priority and motivation of staff engagement throughout the MDT.

Matron, Community Hospital

I'll appreciate more the work we do in our falls prevention team.

Physiotherapist

Include the clinical matrons in the drive to change our action plans. Involve voluntary sector to obtain monies for signage, Cosi slippers etc. To involve porters [have them trained too].

Consultant

Sharing of assessment tools and responsibilities to allow shared learning and single patient focused care.

Falls Prevention Coordinator

Nurses and therapist working together; frame issue; changing doctors' preconception of medical prescription.

Anonymous

Feedback to Senior Exec Team with bid for falls lead within Trust.

Risk Lead

The need to introduce bundles gradually to allow acceptance into everyday practice.

Falls Prevention Nurse

Implement the PDSA approach.

Geriatrician

Need to implement zimmer frames as routine. At the moment this is issued by the physio team.

Unit Matron

BP session brings back into focus the importance of having good/excellent basic skills.

Unit Manager

Able to clarify points about fear question: not to treat fear but to support assessment of risk.

Clinical Standards Facilitator

The care bundle highlighted the fact that the best approach to preventing falls is the involvement of the multidisciplinary team.

Pharmacist

Demand for more

As is evident in the graphs below, wanting more at the events, and in the future, from the FallSafe team was common. Mostly the requests related to more information on:

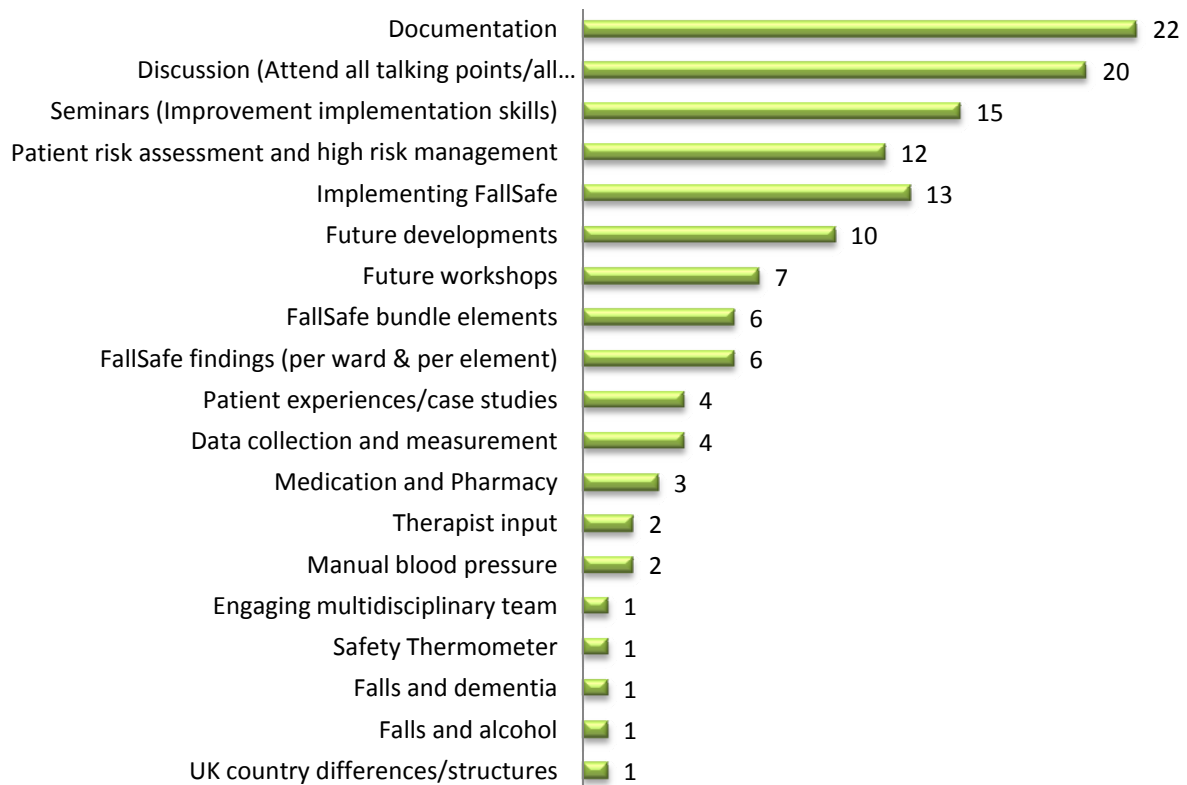
- the make-up of the bundle – why those elements
- implementation in general and regarding specific elements of the bundle
- site specific results: which wards used high/low beds, sensor pads, slipperettes, hourly rounding and the impact those aids had
- documentation (templates, 'how to' guide and access to the FallSafe leads training programme: the skills to drive an improvement project)
- advice on managing patients at a high risk of falling

Future pieces of work requested were:

- Benchmarking information for acute and community hospitals
- Adaptation of the bundle specifically for the community setting
- Broadening the focus to include outpatient falls prevention
- A national standardised e-learning programme for falls leads tied to competencies
- Advanced falls prevention training: moving on from a baseline of reduced falls
- To use the work to influence commissioners to recognise the importance of falls prevention

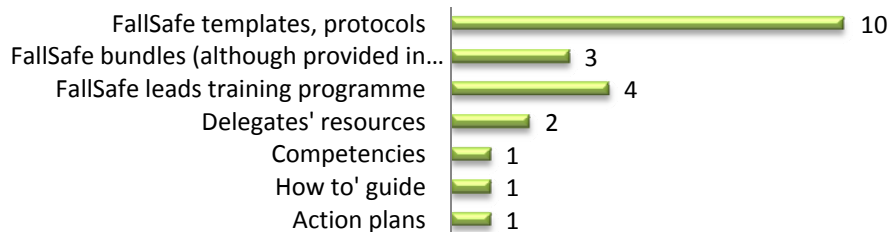
Want more ...

■ Number of commentators



Documentation

■ Number of commentators



Future developments

■ Number of commentators



Opinion on the bundles

Only 6 delegates queried the model. Half were consultants. Continued collection of the data on the FallSafe wards without any salary uplifts and spreading FallSafe across two hospital sites would improve the evidence base with which to convince the medical fraternity.

More negatives communicated than positives. Disappointing. Idea is good but requires proper implementation.
Osteoporosis Nurse Specialist

A lot of the procedures that were advised we are currently utilising already. We still experience falls.
Ward Manager

Playing devil's advocate: you seem sure that this bundle will become the "gold standard," yet were also at pains to point out that this was not an RCT or research. Is it practice in this day and age that a "gold standard" will come out of something that is not based on research? Or includes subsidies of £5k to each ward!?
Anonymous

Procedures identified to increase good care but reduce falls: ? Not sure that nurses recollection of falls can be used as a valid measure to thereby "reduce falls rate" overall "by 25%."
Consultant Geriatrician

Needs resources to implement, which is variable amongst various trusts.
Consultant Physician

(Is there anything we did not do today that you would have liked to see included?): Convince me that FallSafe really reduces falls.
Consultant

Overwhelmingly, however, opinion on the bundle was positive, as highlighted in the main body of this report. Further examples of the favourable response it elicited include:

Good back to basics approach!
Physiotherapist (Band 7)

Enables robust audit, baseline, monitoring success.
Matron

It will have a good impact. Already have decided how I can help improve patient care.
Adult Therapy Team Lead

Very excited going back to my trust and getting/forming a group to take this forward.
Unit Matron

1. Will make changes to current system. 2. FallSafe/RCP/NPSA etc. to provide a lever which is badly needed.
Consultant Physician

The events set out to disseminate the FallSafe falls prevention care bundles and share the learning from their implementation. The feedback indicates that this was successfully achieved and that there is much demand for the project's outcomes.

