Building nursing leadership capability in economic assessment: a supported online learning community

Burdett Trust for Nursing
Cohort 6 – All England

Economic assessment of changes to South Staffordshire and Shropshire Healthcare NHS Foundation Trust Falls Management process

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December 2015

Preface

The aim of this Economic Assessment (EcA) is to identify the costs associated with changing the clinical management of falls, and harm from falls, within South Staffordshire and Shropshire Healthcare NHS Foundation Trust (SSSFT).

The Economic Assessment reviews the costs at the start point in April 2011, the costs involved in the change process and pilot in 2012, and the costs associated with continued roll out from 2013 onwards.

The intended audience for the Economic Assessment is:

- South Staffordshire and Shropshire Healthcare NHS Foundation Trust staff working in inpatient units, with particular reference to cognitive impairment and older age.
- Trust Board, Commissioners of services and the local acute Trusts, as many of the costs associated with harm from falls in SSSFT premises, are borne by the acute sector in South Staffordshire, Shropshire, Telford and Wrekin.

A separate quality assessment has been undertaken (Appendix 2) and shown the changes exceed the planned 15% reduction in falls. The pilot achieved 23.6% reduction in falls on Oak Ward, a ward for people aged 65 years and over with a cognitive impairment during the pilot from April to September 2012.

The objectives of the EcA are to monetise changes made to service delivery so Trust staff fully understand the impact of change, not solely from a clinical perspective, allowing them to understand the impact of falling, on the service user, family, productivity in terms of loss of carers' time in the workplace and wider health and social care economy. Ultimately reducing harm from falls improves the service users, and their families, quality of life.

Key types of costs and benefits

The focus of the economic assessment is harm reduction. The EcA shows the costs across the wider health and social care economy, the pilot costs and costs associated with the subsequent roll out to other wards following a successful pilot and evaluation, borne by the Trust.

The financial costs for an inpatient falling whilst in the Trust are predominantly borne in the acute sector, for example: the ambulance costs to transport the person from SSSFT to the acute hospital, assessment and treatment in the Accident and Emergency Department, orthopaedic surgery/hip fixation/replacement cost, high dependency unit costs, rehabilitation service in the community. Our data shows us that approximately 50% of SSSFT service users who fall and fracture are transferred from the acute sector to nursing home care.

National evidence shows that 50% of people admitted to EMI nursing homes die within 18 months of admission.

Costs relevant to the Trust are summarised around pre pilot set up costs, the pilot costs including evaluation of the pilot, and roll out costs across older age cognitive impairment wards, to continuously improve falls management.

This section outlines the national and local drivers underpinning the need to change current clinical practice.

Key contexts and drivers

Nationally, falls are costing £2 billion per year across health and social care[1] accounting for 4 million bed days[2] and between 70,000 and 75,000 hip fractures per year[3]. From the age of 65 years there is an increased risk of falling, with one person in three aged 65 years or over, falling at least once a year and 50% of people aged 80 years falling at least once per year.

Falls and fractures can result in death or major changes to function as the individual may lose confidence to continue routine activities of daily living, lose functional ability and develop fallophobia, in itself an independent falls risk factor[4].

Falls statistics are increasing annually, with the increase in people aged 65 years and over predicted to rise by 2 million by 2021, along with the predicted increase in diagnosis of dementia. This brings in two independent falls risk factors – increasing age and increasing numbers of people with cognitive impairment.

Locally, in 2010, the Clinical Director (CD) for the Mental Health Division – Older Age Services, was required to authorise completed Serious Incident (SI) investigations undertaken as a result of harm from a fall, related to people admitted as an inpatient to organic or functional older age wards in SSSFT.

This led the CD to consider the consequences of the impact of the fall and potential fracture, on the service user, the family or carers and gave an opportunity to look closely at where the costs of treating people who fall and fracture whilst an inpatient in SSSFT are incurred across the wider health and social care economy and have an impact on productivity costs in terms of the family or carers being absent from the workplace, to look after the person who has fallen.

[1] Public Health England 2015.
[2] Royal College of Physicians 2011.
[3] Office for National Statistics 2013.
[4] Delbaere et al (2010): Determinants of disparities between perceived and physiological risk of falling among elderly people. BMJ, 341, 4165, 1-8.

Who bears the costs if an SSSFT inpatient falls and sustains a fracture?

When a service user falls in this mental health setting, and a fracture occurs, the direct costs for the interventions is borne by the neighbouring acute Trust and wider health and social care economy, as the service user is transported to the acute hospital, who provide the required surgical interventions and care before transferring 50% of SSSFT service users who fracture, to an EMI nursing home. Life expectancy post fracture in an EMI nursing home was found to be on average 18 months.

The other 50% of SSSFT service users who fall and fracture, return to a community environment with rehabilitation and social care support.

It was evident from speaking with staff, as an Investigating Officer for falls related SI's, that Registered Mental Nurses (RMN's) based on the wards often did not see the consequences of the fall and fracture on the individual service user, or the health and social care economy, as the service user rarely returned to the mental health ward.

Discussing this with staff working in Community Mental Health Teams or Dementia Teams, it was recognised that when staff identified 'risk' in the community setting, usually the person's home environment, they felt this would be better managed in inpatient setting. This is without due consideration to two independent high falls risk indicators – aged 65 years or over and cognitive impairment - putting the person immediately at risk from falling in an unfamiliar ward environment.

This Economic Assessment builds on the quality assessment undertaken of the pilot to improve our falls management processes, and looks at the costs associated with harm reduction.

It was expected the major financial savings from reducing falls and fractures within SSSFT would be evident in the acute sector, with other savings within local authority care homes and social care service delivery.

What was the size of our problem?

In January 2012 the number of falls reported within SSSFT appeared to be increasing from previous years, with a total high of 12 falls categorised as moderate harm (9 fractures) resulting in Serious Incident investigations. Our data showed us 94% of falls resulted in insignificant or minor harm. 5 % resulted in moderate harm and 1% in severe and permanent disability.

Table 1 - Summary of costs associated with harm from Falls – prior to the pilot in April 2012, the Trust had an average of 9 falls per year that resulted in fractures – (mainly hip fractures).

Costs are shown in 2012 values.

Activity	**Whose cost**	**Actual cost (size of problem) DM**	**Fixed or variable cost?**
Ambulance costs to transport the person from SSSFT to the acute hospital.	West Midlands Ambulance Service	£260.00 per call out.	Fixed.
Assessment, diagnosis and treatment in Accident and Emergency Department (typical).	Acute Trust	Average cost of A&E attendance £114.00.[5]	Fixed.
Orthopaedic surgery/hip fixation/ replacement cost (typical).	Acute Trust	Hip replacement ranges from £5,500.00 - £11,800.00 depending on the complexity of the operation and the condition of the patient.[6]	Fixed.
High dependency unit costs per day.	Acute Trust	£1,000.00 - £1,800.00 per day [7] X 1 day av length of stay.	Fixed.
Inpatient costs per day including Occupational Therapy and Physiotherapy assessment.	Acute Trust	The average cost of a non-elective inpatient short and long stay combined excluding excess bed days is £1,489 [8]x 7 days av length of stay.	Fixed.
Community rehabilitation service costs per session.	Community Trust	£350.00 per 'package' involving on average, 7 hours of therapy.	
EMI home costs per week.	Council/Private Sector	£800.00-£1,000.00 per week.[9] (£23k - 18 month stay).	Variable.

[5] 2012/13 NHS Reference costs.
[6] 2012/13NHS Reference costs.
[7] 2012/13NHS National Reference costs.
[8] 2012/13 NHS Reference costs.
[9] Shropshire, Telford and Wrekin data 2015.

Activity	Whose cost	Actual cost (size of problem) DM	Fixed or variable cost?
Baseline costs associated with harm from falls.	**Total costs per person**	**£31,813.00 per person** based on 2012/13 reference costs.	

These costs are incurred externally to the Trust and across the wider health and social care economy.

Two actions were taken at this time:

- To review the inpatient falls management process. This assessment focusses on this action.
- To investigate the use of assistive technology to support people to remain in their homes longer or support discharge from hospital, as part of an integrated care plan covering health and social care needs.

What did we do about the problem?

This section describes the processes agreed to identity best falls management practice, agree a simple tool to pilot, agree how best to show falls and harm from falls data to wards and the pilot process.

What did best practice show us?

The Economic Assessment considers the strategic changes made to the Trust Falls Management process, and the training developed to embed those changes into clinical practice. A review of the Falls Management Policy showed high reliance upon an adapted numerical falls indicator. A literature review was undertaken to identify effective falls predictors and found numerical risk assessment tools were not an accurate predictor of the risk of falls. Two indicators were found to be effective. These were:

- Fear of falling (Fallophobia).
- History of falling.

The Trust Falls Management Group reviewed interventions to reduce the risk of falling and it was evident from local practice that several of these common, simple, easy to implement risk management interventions were not routinely being delivered.

Using best practice evidence to develop a tool to pilot

A list of these interventions, relevant to the service user's needs, became known as the Falls Checklist (Appendix 1), was agreed by the Falls Management Group, based on best practice research.

The Falls Checklist was designed to be used by nursing staff during the admission process on cognitive impairment wards, to prompt delivery of a range of interventions through personalised care planning, to reduce the risk of falls and potential harm from falling. As people were being admitted to wards dealing with dementia, then 2 high risk independent risk factors were often evident:

- Aged 65 years or over.
- Cognitive impairment.

These factors placed the person at risk of falling so it was agreed the Falls Checklist would be used with all admissions, to personalise care delivery.

Agreeing the pilot area within SSSFT

The Falls Management Group agreed to select a ward admitting people over the age of 65 years with cognitive impairment that reported a high number of falls per year. Oak Ward fitted this criterion.

Table 2 – Number of falls on Oak Ward and number of fractures as a result of falling 2010 – 2011

Year	Total Falls	Fractures
2010	69	0
2011	142	5 (4%)
2012	92	2 (2%)

Refinements were made to the list of factors in the Falls Checklist (Appendix 1) following nursing staff feedback, and after two or three iterations, the Falls Checklist was shared with carers and family members for their feedback and agreement to use as part of the pilot across Oak Ward, The Redwoods, Shrewsbury.

The Clinical Director approached the Trust Board for approval to pilot a process out with the current Falls Management Policy used across the organisation. Approval was given for a pilot, with a requirement to update the Trust Board in six months - September 2012.

The pilot started in April 2012 with training in the use of the Falls Checklist (Appendix 1) delivered by two Matrons (South Staffordshire and Shropshire) to ward managers, Band 6 and Band 5 nurses on the cognitive impairment wards. This was done during handover sessions. Ward managers were tasked with ensuring relevant staff had the training.

The Matrons completed weekly audits of care plans to ensure the interventions were care planned and delivered, with weekly feedback to staff.

The pilot ran for 6 months from April 2012 until September 2012 and showed a 23.6% reduction in the number of falls (Appendix 2 – So what should be included in care-planning interventions?).

What were the costs involved in the change? The costs fell into 3 categories: pre pilot, pilot and roll out costs.

Table 3 - Pre pilot costs – this covers one off investment costs associated with setting up the pilot. All financial figures in this table are shown at 2015 values (please see Appendix 3 for a full breakdown of costs).

Activity	**Whose cost?**	**Actual cost**	**Fixed or variable cost?**
Developing Falls Checklist.	SSSFT	£280.00 - Matrons (2). £245.00 - AHP Lead. £112.00 - Consultant. £150.00 - Physiotherapist. £360.00 - Admin support. **£622.00 Total**	Fixed.
Falls Checklist pre pilot iterations.	SSSFT	£135.00 - Nursing staff. £78.00 – Physiotherapist. **£213.00 Total**	Fixed.
Development of care plan audit tool.	SSSFT	£135.00 - Nurses Band 6 and Band 5. £78.00 – Physiotherapist. **£213.00 Total**	Fixed.
Training Information Team staff to develop SPC charts.	SSSFT	Information Worker. **£1,350.00 Total**	Fixed.
Development of evaluation methodology and resource required.	SSSFT	£500.00 - Band 7 and Band 4. **£500.00 Total**	Fixed.
	Total costs of pre pilot phase	**£2,898.00**	

What were the costs associated with the pilot?

Table 4 - Pilot running costs - this covers one off investment costs associated with the pilot and pilot evaluation. All financial figures in this Table are shown at 2015 values (see Appendix 3 for a full breakdown of costs including shown in 2015 values).

Activity	**Whose cost?**	**Actual cost**	**Fixed or variable cost?**
Falls Checklist training for staff.	SSSFT	£280.00 – Matrons. £650.00 - Band 6. £1,560.00 - Band 5. £1,092.00 - Band 3. **£3,582.00 Total**	Fixed.
Audit of care plans.	SSSFT	£700.00 – Matrons. £750.00 – Supervision. **£1,450.00 Total**	Variable.
Delivery of SPC charts.	SSSFT	**£675.00 Total**	Fixed.
Interpretation of SPC charts.	SSSFT	£720.00 – Psychiatrist. **£720.00 Total**	Fixed.
Cost of staff completing Falls Checklist.	SSSFT	**No costs associated as this was not additional work.**	
Delivering interventions associated with care plans.	SSSFT	**No costs associated as this was not additional work.**	
Admin support from PA.	SSSFT	**£240.00 Total**	Fixed.
Data analysis.	SSSFT	**£500.00 Total**	Fixed.
Total cost of Pilot Phase.	**SSSFT**	**£7,167.00**	

Falls Checklist Training. The pilot in April 2012 ran for 6 months. It started with training in the use of the Falls Checklist, delivered by two Matrons (South Staffordshire and Shropshire) to ward managers, Band 6 and Band 5 nurses on the cognitive impairment wards. This was done during 8 handover sessions. Ward managers were tasked with cascading the training to ward staff. Training initially covered a 3 month time span, with each of the 8 sessions taking 1.5 hours of a Band 8 Matron to train ward staff who cascaded the training to the ward.

Audit of care plans to evidence personalised falls risk management plans. The Matrons did weekly audits of care plans, for 3 hours per week over 12 weeks, to ensure the interventions were care planned and delivered, with weekly feedback to staff.

Development of SPC charts for individual wards. These were a new request for the Performance Team to provide as SPC charts had not routinely been used within the organisation. Prior to the pilot, ward staff received quarterly bar charts with every wards falls data included, with unhelpful feedback, such as to contact the wards with low falls data to see what they were doing in order to reduce the number of falls.

This implied a "good" and "bad" rating to wards, comparing their data with other wards who had different client groups and were not like for like comparison. It was agreed by the Falls Management Group that a different way of showing data in a more localised meaningful way was required. Statistical Process Control (SPC) was agreed as the appropriate tool to pilot and the Risk Management Department were asked to deliver monthly SPC charts for Oak Ward showing upper and lower control limits using data from 2010.

The charts were produced by a Band 7 staff member using 7.5 hours per month during the pilot to learn how to use SPC effectively, produce and disseminate the SPC reports.

Delivering interventions associated with care plans. This required specific actions/interventions to be delivered as a result of the completion and formulation of the Falls Checklist. Actions were personalised to the service users assessed needs and differed in which member of the multidisciplinary team was involved, which interventions were required and at what frequency and duration.

Data analysis. The falls data and harm from falls data for cognitive impairment wards during the 6 month pilot, was collated by Professor Elliott, Consultant Psychiatrist, who analysed the information. This took on average 3 hours per month for 3 months and 1 hour per month for a further 3 months, as experience in interpreting the data increased.

What was the impact of the changes made to the Falls Management process?

Table 5 - Oak Ward falls and harm from falls by number and percentage

Year	Total Falls	Fractures
2010	69	0
2011	142	5 (4%)
2012	92	2 (2%)
2013	99	2 (2%)

The Pilot demonstrated quality and efficiency improvements, with a 23.6% reduction in falls, a reduction in fractures as a result of falling and was supported by the Trust Board to roll out the process across the organisation (see Appendix 2).

"Typical" Case Study

75 year old gentleman with a diagnosis of cognitive impairment admitted on 2nd September 2015. Falls Checklist completed on 2nd September 2015 by the admitting nurse and noted no previous history of falls, no fear of falling and mobilising with a walking stick. A care plan shows he was referred to physiotherapy due to postural hypotension on standing. Following an assessment by the physiotherapists the gentleman was rated at high risk of falling and a personalised physiotherapy care plan identified needs as:

"I have osteoarthritis angina and postural hypotension. I am at high risk of falling.
I require assistance from one person to sit and to stand from the air flow mattress.
I am safe and steady when mobilising with one stick.
I am going to attend falls prevention session (NICE Guidelines CG177) on the ward within 5 days of admission and complete exercises targeted at knee strength.
I plan to complete the elderly mobility scale to indicate which setting will be most appropriate for me (own home, residential or nursing home).

I attended Strictly Come Dancing style falls prevention classes which consisted of postural correction, weight transfer and balance exercises. I completed the home hazard assessment and did not identify any concerns.

I stated I am aware of falls hazards to look for in the environment. I scored 10 seconds in the Timed Up and Go test which is normal for my age and 4 seconds in the 180 degree turn, which means a slight problem with my turning that I am now aware of.

My plan is to continue with the group activity to strengthen lower limb muscles and reduce the risk of falling when turning. I will do this within 7 days of admission."

No further interventions were required and the gentleman returned to his own home, with the same support package as before his admission. The cost avoidance figures (£34,258 in 2015 value saved minimum) as a result of the personalised care interventions clearly demonstrate that it makes sense to roll out the new approach, as each cost avoidance scenario has the potential to add more value than the costs involved in managing a fracture as a result of falling whilst an inpatient in SSSFT.

What were the costs of sharing the changes across other wards?

Table 6 - Roll out costs shown in 2015 values. Due to the success of the pilot it was agreed to extend the Falls Checklist and personalised care planning to reduce the risk of falls, across other wards. This section covers costs associated with rolling the Falls Checklist and care planned interventions across other wards (see Appendix 3 for a full cost breakdown including a 2.5 % annual increase in costs where relevant).

Activity	**Whose cost?**	**Actual cost**	**Fixed or variable cost?**
Falls Checklist training for staff.	SSSFT	£560.00 for 3 months.[10] £270.00 Physiotherapy to support training.[11] £1,764.00 for staff to be trained. **£2,594.00 Total**	Variable (band of staff delivering). One off costs completed in 3 months.
Audit of care plans.	SSSFT	£316.00 per month x 3 = **£948.00**	Fixed.
Delivery of SPC charts.	SSSFT	£30.00 per month x 3 = **£90.00**	Fixed.
Evaluation costs.	SSSFT	£15.00 per month x 3 = **£45.00**	Fixed.
Total cost of roll out across 3 month time frame.	**SSSFT**	**£3,677.00**	

Costs for roll out to wards

Due to the significant reduction in falls and harm from falls achieved during the pilot, agreement was given by the Trust Board in September 2012 to use the Falls Checklist and care planned interventions across other older age/cognitive impairment wards. The training was rolled out by the two Matrons across 3 older age inpatient units – St George's Hospital, George Bryan Centre and The Redwoods.

[10] Cost for matrons.
[11] Costs for 3 months.

At this time, the Royal College of Psychiatrists online Fallsafe training (online e-Learning via ESR "000 Preventing Falls in Hospital") was launched and was agreed by the Falls Management Group to be best practice training and agreed as mandatory for all staff working with inpatients aged 65 years and over, or with cognitive impairment. This training was included in the local induction training for ward staff. It takes an hour to complete, including the test (pass/fail).

Maintenance Costs

Table 7 - Maintenance Costs. There are costs associated with maintaining the quality improvements made. These occur as changes to ward staff are made and staff new to the environment require training and support to deliver the Falls Checklist and understand the SPC data. These costs are per annum and shown in 2015 values.

Activity	**Whose costs?**	**Actual cost?**	**Fixed or variable?**
Ward staff training.	SSSFT	£158.00 x 2 Matrons = **£316.00 Total**	Fixed.
Ward staff supervision.	SSSFT	£158.00 x 2 Matrons = **£316.00 Total**	Fixed.
Audit of care plans.	SSSFT	£158.00 x 2 Matrons = **£316.00 Total**	Variable.
Total Maintenance Costs	**SSSFT**	**£948.00 Total**	

Where are the benefits realised?

Economic Benefits Summary

As stated earlier, the financial costs for an inpatient falling whilst in the mental health setting are predominantly borne in the acute and social care economy. The minimum costs when one inpatient falls and incurs a fractured hip is **£34,258 per person** 2015 values. The costs avoided to the wider health economy by reducing a potential 9 fractures from falls per year within the Mental Health Division, provides opportunity for **£308,330 in 2015 values**[12] cost avoidance. It is recognised this may not lead to bed reductions in acute settings but releases capacity to be used in other ways.

The potential cost avoidance to the social care sector is **£24,768 per 18 month stay per person minimum, in 2015 values.** This releases capacity to be used in other ways.

[12] If all fractured femur.

The Set Up Costs for developing and testing the changes to the SSSFT falls management process were: pre pilot costs of £**3,983.00** (2015 values) and pilot costs of **£7,176.00**. **Total £12,963.00**.

The annual maintenance costs of £948.00 (2015 values) are for activities now routinely integrated into clinical practice and performance reports.

For the total investment of **£13,911.00** (set up costs and maintenance costs) the Trust has improved a process that has significantly reduced the number of falls and harm from falls and demonstrated both clinical and cost effectiveness.

This is particularly relevant in the context of increasing numbers of the population diagnosed with cognitive impairment, who may require admission to mental health inpatient units.

- Cost of change process and maintenance = £13,911.00 (2015 values).
- Cost of fall/fracture (within SSSFT) per person to wider health and social care economy is = £34,258.00 (2015 values).

Benefits to the service user/family/carer

- Accurate personalised care planning to manage and reduce risk of falling whilst an inpatient.
- Maintain/improved independence, quality of life (as opposed to reduced quality of life post fall), less social isolation leading to diagnosis and management of depression and anxiety.
- Maintain autonomy and independence. Less chance of pressure ulcers, clots and infections associated with surgical procedures.
- Less burden of care on family and local economy eg days lost in workplace.

Benefits to the Trust

- Replacing the previous numerical risk assessment tool with evidence based indicators.
- Accurate falls risk checklist to identify the risk of falling.
- Provision of personalised care planned interventions to reduce/manage the risk of falling.
- Staff trained and supported to manage risk of falling through use of Falls Checklist.
- Audit process to evidence delivery of personalised falls management care plans.
- Statistical Process Control charts (SPC) embedded to provide ward managers with information displayed in a meaningful way, ie monthly accurate falls management data specific to their area of responsibility, in a format that is understood by staff.

Benefits to the wider Health Economy

- Less SSSFT service users are transported to the acute hospital as a result of harm from falling - sustaining a fracture as a result of falling.
- Reduction in emergency call out costs, ie ambulance.
- Reduction in assessment, diagnosis costs attached to the acute sector Accident and Emergency Department.
- Reduction in costs associated with surgical intervention, hip fixation/ replacement, surgical beds, rehabilitation inpatient costs.
- Less costs around treatment of pressure ulcers, clots and infections associated with surgical procedures.
- Reduction in costs to community nursing and rehabilitation services.
- Reduction in costs associated with EMI care on discharge from acute hospital.
- Less time lost in local economy/workplace as family members required to look after person.

How will the information be shared internally and external to the Trust?

1. Burdett Trust for Nurses Report to be submitted by 3rd December 2015.
2. Presentation (PowerPoint) to the Trust Quality Governance Committee – February 2016.
3. Presentation (PowerPoint) to the Mental Health Quality Assurance and Information Group – February 2016.
4. Presentation (PowerPoint) to Allied Health Professions – Mental Health – Clinical Leads Meeting - January 2016.

Key assumptions made

1. If we facilitate older age people with cognitive impairment to have maximum autonomy, dignity and respect whilst in inpatient wards, the potential for falls will be an inevitable part of clinical life and the falls management processes must strive for continuous improvement.
2. The Trust wishes to continue to support autonomy, dignity and respect for service users and families, through the least intrusive approaches and will ensure staff are trained and supported to deliver best practice approaches to falls management.
3. The Trust continually strives to improve reduction in harm from falls, within existing budgets.

Limitations to the report

- Limitations are lack of access to local acute hospital data for costings, so national data has been used. The reluctance seemed to be that information could not be shared from one Trust to another unless a Freedom of Information request was made.

- The report could have looked at the average costs across hospital (mental health and acute) community and social care 12 month pre and post falling – data not available to SSSFT on request.
- Lack of this data resulted in being unable to follow through an actual single case study, so a typical case study has been offered.
- Although the report looks at where the cost of treating people (who fracture as a result of falls whilst an inpatient in SSSFT) is incurred across health, acute, community and social care services, it does not offer a joined up economic assessment as the data was not easily available to share for this small report. A larger scale review may yield more robust data.

Acknowledgements

- The reduction in falls and harm from falls within the Trust came to the attention of the West Midland RCN Quality Forum, who reviewed falls and harm from falls as part of the Quality Forum. SSSFT data showed a reduction in falls and harm from falls above other local Trusts and was asked to present their work at the Forum in January 2015. The forum comprised RCN members, specifically Paul Vaughan who suggested the Trust might benefit from understanding the economic impact of the work. This provided the opportunity for SSSFT to be part of the Royal College of Nursing (RCN), Office of Public Management (OPM) programme Building Nursing Capability in Economic assessment, funded by the Burdett Trust for Nursing. Thank you for the invaluable experience gained.
- Thank you to the Falls Management Group, Professor Tony Elliott and Charlotte Mulvey (Physiotherapist) for the support they have provided to this report.

Debbie Moores
December 2015

Appendix 1 – Falls Checklist

TIMINGS ALL RELATE TO TIME FROM CHECKLIST COMPLETION			
Physical Health			
Does the patient have any difficulty with mobility or use a mobility aid?			
If yes refer to physio dept for advice on mobility aids within 24hrs.If patient usually has aid, arrange for mobility aid to be brought in and supply temporary replacement until then within 1 working day			
Date documented in care plan		**Date intervention started**	
Has the patient had a fall previously?			
If Yes refer to Physiotherapy for postural stability assessment within 24hrs. AND Occupational therapy for functional assessment within 1 working day			
Date documented in care plan		**Date intervention started**	
Does the patient have any fear of falling? (as reported by patient, carer or observed)			
If Yes provide Psycho-education and refer to Psychologist within 1 working day			
Date documented in care plan		**Date intervention started**	

Does the patient wear glasses for reading and/or for long distance?	**No**

If yes ensure they have got the correct glasses in hospital with them within 1 working day

Date documented in care plan		**Date intervention started**	

Has the Osteoporotic assessment been completed?	

If no arrange for medical staff to complete the FRAX assessment within 2 working days

Date documented in care plan		**Date intervention started**	

Is there fluctuation in sitting and standing blood pressure and / or are there cardio vascular problems	

If yes start blood pressure chart immediately, and review with medical staff within 2 working days

Date documented in care plan		**Date intervention started**	

Mental Health

Is the patient on high risk medication e.g. hypnotics benzodiazepines, anti- psychotics, antidepressants	

If Yes, arrange a Medication review with medical staff within 2 working days of admission. If any sleep difficulties incorporate Sleep management, sleep hygiene training in Care Plan and commence a sleep chart

Date documented in care plan		**Date intervention started**	

Footwear

Is footwear appropriate, is the footwear the patients everyday wear and are they well fitted.	

If no request carers bring in patients usual footwear which is well fitted within 24hrs and offer temporary replacement slippers if necessary immediately. If offer declined, choice must be respected but document discussion in care plan

Date documented in care plan		**Date intervention started**	

Check feet for any difficulties e.g. signs of discomfort, in growing toe nails, broken skin, undue pressure	

If yes refer to podiatrist within 24hrs

Date documented in care plan		**Date intervention started**	

This will need to be completed within 24 hrs of admission and revisited following a fall or if the patient's condition changes. All areas and next steps to be documented in the care plan

Click here for direct access to Care Plan

Appendix 2

Presentation “So what should be included in care-planning interventions?”

Falls slides Prof E 2015 for inclusion in f

Appendix 3

South Staffordshire and Shropshire Healthcare NHS Foundation Trust

Economic Assessment of changes to Falls Management Pathway

Set Up Costs

Set up costs:

Be clear about what you mean by 'set up'.

Write down what year these relate to.

Direct costs (Add rows as required)				
Identify	**Additionality**	**Apportion**	**Full costs**	**Real terms**
Simply name the cost type / category	**Is this activity 'over and above' for the purpose of your Economic Assessment?**	**Should 100% of this cost type / category be included?**	**Do you need to adjust figure to reflect full costs (e.g. on-costs)?**	**Do you need to adjust figure to express it 'in today's money'?**
Design Phase				
Matron Band 8A x 2	No	No – proportion based on: 4 meetings attended at one hour per meeting. • To design pilot. • To agree content of resources.	Yes £35.00 per hour in 2011 x 4 hours includes 22.5% on costs = £140.00 £158.00 x 2 = £316.00	Yes need to adjust by 2.5% per year (Bank of England Guidance) from: 2012 = £144.00 2013 = £151.00

				2014 = £154.00 2015 = £158.00
Trust AHP Lead	No	No – proportion based on: 8 meetings chaired.	£61.00 per hour includes 22.5% on costs x 8 = £490.00	Need to adjust by 2.5% per year from 2011 2012 = £508.00 2013 = £520.00 2014 = £533.00 2015 = £546.00
Consultant Psychiatrist	Yes	No – proportion based on: 3 hours per months for 3 months, then 1 hour per month for 3 months.	£112.00 per hour in 2011 includes 22.5% on costs. 3 x £112 x 3 = £1008.00 for 3 months. £112.00 x 3 = £336.00.	Need to adjust by 2.5% per year from 2011 2012 = £1033.00 2013 = £1058.00 2014 = £1084.00 2015 = £1111.00
Physiotherapist Band 7	Yes	No – proportion based on:	£30.00 per hour in 2011 includes	Need to adjust by 2.5% per

		5 meetings attended at 1 hour per meeting. • To design pilot. • To agree content of resources.	22.5% on costs x 5 = £150.00	year from 2011 2012 = £154.00 2013 = £158.00 2014 = £162.00 2015 = £166.00
Band 5 PA	Yes	No – proportion based on: 3 hours per month for 6 months.	£20.00 per hour includes 22.5% on costs x 3 x 6 = £360.00	Need to adjust by 2.5% per year from 2011 2012 = £369.00 2013 = £378.00 2014 = £387.00 2015 = £396.00
Pilot Phase **(Costs for 6 month pilot)**				
Matron Band 8A	Yes	No – proportion based on: 8 hours training sessions delivered (time for travel and training).	Yes £35.00 per hour in 2012 x 20 hours includes 22.5% on costs = £700.00	Need to adjust by 2.5% per year from 2012 2013 = £716.00

		6 hours case notes audit of personalised falls management care plans. 6 hours supervision and support sessions.		2014 = £734.00 2015 = £750.00
Consultant Psychiatrist	Yes	No – proportion based on: 1 hour per month training ward managers re interpretation/ discussion of SPC charts data.	£120.00 per hour in 2012 includes 22.5% on costs = £120.00 x 6 £720.00	No need to adjust. One off costs.
Physiotherapist Band 7	No	No – proportion based on: 1 hour per week for 26 weeks - supporting Ward Moving and Handling Leads.	£26.00 per hour includes 22.5% on costs = 26 hours = £676.00	No need to adjust one off costs.
Ward staff trained Band 6 x 2 at £25.00 per hour Band 5 x 6 at £20.00 per hour Band 3 x 6 at £14.00 per hour	No – different to what previously doing	No – proportion based on: Time to undertake face to face training/ supervision for 6 months at 2 hours per month plus on line training 1 hour per staff member.	Yes includes 22.5% on costs Band 6 £25.00 x 13 hours x 2 = £650.00 Band 5 £20.00 x 13 x 6 hours = £1560.00	May need to adjust by 2.5% per year from 2012 as new staff join ward: All bands per annual rate hourly cost over 44 weeks.

Band 2 x 4 at £12.00 per hour			Band 3 £14.00 x 13 x 6 = £1092.00 Band 2 £12.00 x 16 hours x 4 = £624.00	
Roll out of new pathway post pilot				
Matron Band 8A x 2	Yes	No – proportion based on: 8 hours per month at £35.00 per hour, for training staff in Falls Checklist, personalised care plans, supervision and support to staff across older age/cognitive impairment wards plus 4 hours travel per month. Laurel, Baswich, Bromley, George Bryan Centre. £35.00 x 8 x 2 = £560.00	Yes includes 22.5% on costs.	Need to adjust by 2.5% per year from 2012 2013 = £574.00 2014 = £588.00 2015 = £603.00
Physiotherapist Band 7	Yes	No – proportion based on:	£30.00 per hour includes 22.5% on costs £30.00 x 6 =	One off cost.

		1 hour per week for 6 weeks then. 1 hour per month ongoing to support Ward Moving and Handling Lead.	£180.00 £30.00 per month ongoing for 3 months = £90.00	Need to adjust by 2.5% per year from 2012 2013 = £30.75 2014 = £31.00 2015 = £32.00
Ward staff trained across 4 wards. Band 6 at £25.00 x 8 staff x 3 hours. Band 5 at £21.00 x 8 x 3 hours. Band 4 at £16.00 x 4 x 3 hours.	No – different to what previously doing.	No – proportion based on: Time to complete Falls Checklist training. On line Falls Safe Training. Complete personalised care plan training.	Yes includes 22.5% on costs. £600.00 £504.00 £192.00 £252.00	Need to adjust by 2.5% per year from 2012 as new staff arrive. Per Band 6 = £26.00 x 3 hours = £78.00 Per Band 5 at £21.00 x 3 hours = £63.00 Per Band 4 at £16.00 x 3 hours = £48.00

Band 3 at £14.00 x 6 x 3 hours. Band 2 at £12.00 x 6 x 3 hours.			£216.00	Per Band 3 at £14.00 x 3 hours = £42.00 Per Band 2 at £13.00 x 3 hours = £39.00
Indirect costs (Add rows as required)				
Identify	**Additionality**	**Apportion**	**Full costs**	**Real terms**
Simply name the cost type / category	**Is this activity 'over and above' for the purpose of your Economic Assessment?**	**Should 100% of this cost type / category be included?**	**Do you need to adjust figure to reflect full costs (e.g. on-costs)?**	**Do you need to adjust figure to express it 'in today's money'?**
Design Phase				
Matron Band 8A (AMS)	No	No – proportion based on: Research best practice evidence.	Yes includes 22.5% on costs.	Need to adjust by 2.5% per year from 2011.
Trust AHP Lead	Yes	No – proportion based on.	Yes includes 22.5% on costs. £62.00 per hour x 30 hours	Need to adjust by 2.5% per year from 2011.

			= £1860.00	
Consultant Psychiatrist	Yes	No – proportion based on: Agreement of SPC charts, frequency and content. Best practice evidence from Institute for Innovation and Improvement.	Yes includes 22.5% on costs £112.00 per hour x 15 hours = £1680.00	Need to adjust by 2.5% per year from 2011.
Band 5 PA	Yes	No – proportion based on: Arranging meetings, minutes and agendas = 12 hours total. Preparing reports for 6 months = 6 hours total.	£20.00 per hour includes 22.5% on costs £20.00 x 6 hours = £120.00	Need to adjust by 2.5% per year from 2011.
Band 7 Risk Management support. Understand data requirements. Develop SPC charts per ward. Number of falls. Harm from falls.	Yes	No – proportion based on: 7.5 hours per month for 6 months.	£30.00 per hour includes 22.5% on costs £30.00 x 7.50 x 6 = £1350.00	Need to adjust by 2.5% per year from 2011.
Pilot Phase				
Ward staff trained Band 6 x 2 Band 5 x ?	Yes	No – proportion based on.	Yes includes 22.5% on costs.	No need to adjust by 2.5% per year from

Band 3 x ? Band 2 x ?				2012 as 6 month pilot.
Band 5 PA		No – proportion based on: 2 hour per month.	£20.00 per hour includes 22.5% on costs £20.00 x 2 = £40.00 x 6 months = £240.00	No need to adjust by 2.5% per year from 2012 as 6 month pilot.
Band 7 Risk Management support	Yes	No – proportion based on: 1 day per month.	£30.00 per hour includes 22.5% on costs £30.00 x 6 months = £180.00	No need to adjust by 2.5% per year from 2012 as 6 month pilot.
Roll out of new pathway				
Matron Band 8A	Yes	No – proportion based on: Supervision 1 hour per month.	£36.00 per hour includes 22.5% on costs. £36.00 per month x 2 = £72.00 per month of roll out x 2 = £144.00.	Need to adjust by 2.5% per year from 2012 to 2014.
Physiotherapist Band 7	Yes	No – proportion based on: 1 hour per month.	£30.00 per hour includes 22.5% on costs.	Need to adjust by 2.5% per year from

			£30.00 per month of roll out x 3 = £90.00	2012 to 2014.
Ward staff Band 6 to do training of staff new to ward environment as and when required. Costs of the Band of staff requiring the hours training.	Yes	No – proportion based on:	£26.00 per hour includes 22.5% on costs.	Need to adjust by 2.5% per year from 2012 to 2014.
Band 7 Develop SPC charts per ward to include: Number of falls. Number of harm from falls. Dissemination to all wards.	Yes	No – proportion based on: 1 hour per month.	£30.00 per hour includes 22.5% on costs. £30.00 per month of roll out/ongoing.	Need to adjust by 2.5% per year from 2012 2013 = £30.75 2014 = £32.00 2015 = £33.00
Interpretation of SPC charts.	Yes	No – proportion based on 1 hour per month.	Consultant Psychiatrist £123.00 per hour	£112 in 2011 Adjusted by 2.5 % = £123.00 per hour 2015.

Costs saved by 23.6 % reduction in harm from falls.		Ambulance callout to mental health ward and transfer to local county hospital Costs associated with diagnosis and surgical treatment of fracture. Hospital bed days – HDU. Surgical ward. Community rehabilitation services for post fractured hip. Transfer to EMI beds in community.	£260.00 x number of fractures (2015 data from West Midlands Ambulance Service) per call out plus medical supplies used. Typically hip fracture so use that data.	
Maintenance costs to continuously improve quality. Ward staff training - 4 hours per month. Ward staff supervision	 No No	2011 costs uplifted annually by 2.5 % per hour = £39.50 per hour.	 £158.00 x 2 Matrons = **£316.00 Total** £158.00 x 2 Matrons =	

hours per month. Audit of care plans.	No		**£316.00 Total** £158.00 x 2 Matrons = **£316.00 Total**	