JSNA Supplement

Falls

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South Tyneside Falls Needs Assessment

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Falls are among the most common and serious problems facing older people. They result from the interaction of multiple and diverse risk factors and situations; many of which can be avoided or corrected.

South Tyneside has a significantly higher number of people over 65 years experiencing fractured neck of femur (hip fracture) compared with the national average. Hip fracture is primarily caused by a fall and leads to an increase in A&E attendances and hospital admissions as well as having a significant impact on social care and unpaid carers.

Falls are a major reason for 40% of care home admissions and the incidence of falls in nursing homes and hospitals is almost three times the rate for community dwelling over 65s.

In terms of hospital admissions, we know that that there has been an increase in emergency admissions in South Tyneside due to falls since 2002-3 and the trend is rising. A dramatic increase in the population aged 65 and over is anticipated in the next 25 year. Without a concerted response, this will likely lead to a further rise in falls and fractures

Falls are a major cause of the loss of mental and physical well-being among older people and this strategy acknowledges the critical role that so many organisations have to play in this area, reflecting the multi-factorial causes of falls and the holistic approach that is often necessary to reduce their number and frequency.

Our Healthier Nation (OHN)

The Government's White Paper, 'Saving Lives: Our Healthier Nation' (OHN) was published in July 1999. Within this document, accidents are one of four priority areas selected for immediate action. The NHS, in collaboration with partner agencies, is directed to focus on disease prevention and health promotion to reduce the risk of accidents, while improving service provision for those suffering ill health as a result of an accident.
The principal targets in OHN are:

- To reduce the death rates from accidents by at least one-fifth by 2010
- To reduce the rate of serious injury from accidents by at least one-tenth by 2010

Action to reduce accidents has been focused on specific target groups, with older people representing one of the key groups selected. Therefore, a high priority is being given to reducing the number and incidence of falls amongst older people.

The National Service Framework for Older People [DH 2001] outlines a key government target aiming to reduce morbidity and mortality by ……..'reducing the number of falls which result in serious injury and ensure effective treatment and rehabilitation for those who have fallen'

THE NHS PLAN

The NHS Plan (2000) sets out a programme of investment and reform for the health and welfare service and sets out 10 principles which underpin Government intentions towards a modern care system for older people.

The key areas of reform will be taken forward through the following key areas:

- assuring standards of care
- extending access to services
- ensuring fairer funding
- developing services which promote independence
- helping older people to stay healthy
- developing more effective links between health and social services
- other services such as housing, and partners in the voluntary and private sectors

NATIONAL SERVICE FRAMEWORK FOR OLDER PEOPLE

In 2001 the National Service Framework for Older People (NSF) was published by the Department of Health. The NSF sets out a programme of action to reform and address services for older people. This includes nine standard areas, one of which is related to falls (Standard 6) among older people. Standard Six stated clearly that:

- The NHS, working in partnership with the council, takes action to prevent falls and reduce resultant fractures or other injuries in their population of older people.

- Older people who have fallen receive effective treatment and, with their carers, receive advice on prevention through a specialised falls service.

- A key government target aiming to reduce morbidity and mortality by …'reducing the number of falls which result in serious injury and ensure effective treatment and rehabilitation for those who have fallen'

NATIONAL INSTITUTE FOR CLINICAL EXCELLENCE GUIDELINES

In November 2004, the National Institute for Clinical Excellence (NICE) published the Clinical Guideline 21 “Falls: the assessment and prevention of falls in older people”.

This guidance outlines five key steps which should be implemented in falls services:

- Case/risk identification
- Multi factorial risk assessment
- Multi factorial interventions
- Education and training
- Patient empowerment

NATIONAL CLINICAL AUDIT OF FALLS AND BONE HEALTH IN OLDER PEOPLE

The National Clinical Audit of Falls and Bone Health carried out in 2007/2008 reported that falls are the commonest reason for an older person to attend Accident and Emergency (A&E) and for being admitted to hospital. Hip fractures are, the most frequent fragility fracture caused by falls, and the commonest cause of “accident” related death.

Although not specific to the falls services provided in South Tyneside area, the audit showed an unacceptable degree of variation across the NHS, and concluded that most services being provided locally were inadequate. The report recommended that:

- A patient pathway should be commissioned for secondary prevention of falls and fractures.
- Acute trusts should ensure that prompt surgery can be offered for patients with hip fractures.
- Primary Care Trusts (PCTs) should commission falls clinics.
- PCTs should promote evidence-based exercise programmes in collaboration with local authorities.
- Acute and community services should share clinical information with patients receiving falls and fracture care.
- PCTs and local providers should review their information sharing agreements to promote co-ordinated clinical governance and an audit of patient care pathways.

Other important National strategies impacting on falls and older people include:

- NSF for Mental Health (Standard 1)
- NSF for Coronary Heart Disease (Standard 1 to 4)
- NSF Cancer Plan

NICE Guidance

NICE 'Clinical practice guidelines for the assessment and prevention of falls in older people' [2004] highlight that one in three aged 65 and over will fall once a year and that this rises to one in two when aged 80 and over.

The numbers of elderly and very elderly in the population for the North East compared to the rest of England indicates a sustained level of demand for falls services in the north east from the 75 and over age group which is likely to continue in future years. This will place demand on the services generally for elderly and frail elderly but particularly falls services given South Tyneside's prevalence. Older people are at the greatest risk of falls (65 yrs >) coupled with the physical and emotional stresses this affects 1 in 10 people and leaves their independence compromised. This may subsequently lead to the need for more intensive care (such as carers/home support) than may have previously been required. There is an opportunity to prevent/reduce falls by around 20% and that a good prevention strategy would help. Looking at the Table below there is a proportion of the population 65 and over who are likely to sustain a fall and continue to need better services than we currently offer in the community.

The National Service Framework for Older People [DOH 2001] is a key Government target aiming to reduce morbidity and mortality by *'reducing the number of falls which result in serious injury and ensure effective treatment and rehabilitation for those who have fallen'*

DEMOGRAPHIC CHARACTERISTICS OF SOUTH TYNESIDE

The Borough of South Tyneside in the North East of England is one of the smallest metropolitan districts with an area of 64 km² and a population of 152,785 (2001 census); 17% are people over 65 years of age and 2.7% are from minority ethnic backgrounds. It is one part of the North East Strategic Health Authority (SHA).

South Tyneside is an area which has seen a decline in its traditional economic, social and environmental structure and of significant socio-economic deprivation. Over 52% of the population falls within 20% of the most deprived Super Output Areas (SOA) in England (IMD 2004). Recent indicators revealed that rates of unemployment and poor general health are high, over 6% and over 12% respectively.

South Tyneside is amongst the fifth of local authorities with the lowest life expectancy at birth, 74.0 years for men and 79.5 years for women, compared to the English average of 76.0 and 80.6 years (2000-2002 data). Age standardized mortality rates for circulatory diseases, all cancers and suicides are higher than the national average for England.

The demographic pattern is changing, with fewer births and an elderly (75+) population that is higher than the English average**.** In 2001, 12.6% of the

population described their health as ‘not good’ (9.2% in England & Wales (E&W)); 23.6% had a limiting long-term illness (18.2%, E&W).

Services to South Tyneside residents are provided by the Metropolitan Borough Council, Primary Care Trust, 29 GP practices, one Acute Trust situated within South Tyneside (South Tyneside Foundation NHS Trust), and one specialist Mental Health Trust (NTW). Services are also provided by voluntary sector organisations such as Age Concern and Health-net. In order to respond to the needs of people with fall problems in South Tyneside, these agencies seek to work effectively in partnership and in an integrated pattern.

Each year, an estimated 33% of older people fall and the likelihood of falling increases substantially with advancing age. Unfortunately South Tyneside do not have a falls register and the number of older people seeking clinical care who fall, are injured or sustain minor injuries is unknown. However, it is estimated that there are about 5000 incidents requiring attention per annum.

Falls rates in the community are challenging to report nationally given that 75-80% of non-injurious falls are not reported. It is accepted however that between the ages of 65 and 85 years 1 in 3 women and 1 in 5 men will fall and this ratio rises to 1 in 2 for both over the age of 85yrs. 40% of these falls occur in the home and this increases to 85% over the age of 85yrs.

Most falls do not cause a serious injury, but the consequences of falling can include:

- Psychological problems such as fear of falling and lack of confidence
- Loss of mobility leading to isolation and depression
- Increase in dependency and disability
- Inability to get up from a fall, possibly resulting in hypothermia, pressure related injuries or infections
- Admission to long-term care: 40% are due to a fall

There appears to be a seasonal variation where winter (December and January) has the highest rate of falls. There is some evidence that falls incidence has been increasing over past two decades.

The proportion of older people residents in South Tyneside who fell, as extrapolated from surveys*, is shown in Table One. Approximately, 4330 of older people (aged 65+ years) experienced falls during a three months period: nearly 5% of all older people sustained some type of recent fall-related injury. Even when those injuries are minor, they can seriously affect older people’s quality of life.

Table One: Estimated Falls and Fall-Related Injuries among South Tyneside 65+ population during Three Months Period* as extrapolated from Behaviour Risk factor Surveillance System, United States 2006

Characteristic		% of 65+ with at least one self-reported fall ✦	Estimated Number of 65+ with at least one fall	% of 65+ who fell and were injured at least once ✦✦	Estimated Number of 65+ who fell and had at least one fall-related injury
Overall**		**15.9**	**4330**	**31.3**	**1355**
Sex	**Women**	**16.4**	**2581**	**35.7**	**921**
	Men	**15.2**	**1747**	**24.6**	**430**
Age group	**65-69**	**13.4**	**980**	**29.9**	**293**
	70-74	**14.0**	**940**	**31.8**	**299**
	75-79	**15.7**	**912**	**31.0**	**283**
	80+	**20.8**	**1540**	**32.1**	**494**
Marital Status	**Married**	**14.2**	**2475**	**28.4**	**703**
	Single***	**18.1**	**1775**	**34.0**	**604**

* Source: Estimates extrapolated from Behaviour Risk factor Surveillance System, United States 2006

** Office from National Statistics: 2006 mid-year population estimates

*** Includes widowed, divorced, separated, and never married

✦ Fall defined as when a person unintentionally comes to rest on the ground or another lower level, during the preceding three months

✦✦ Injuries – fall-related injury which caused the person to limit his/her activities for at least a day or to go see a doctor.

Among older people, women fall more frequently and are treated for fall-related injuries, especially fractures, more often than men.

Falls account for 4% of hospital admissions, 40% of injury-related deaths and 1% of total deaths in 65 years old and over. The major serious injuries that result from falls include fracture of the wrist, pelvis, and hip.

Falls rates in hospitals are reported nationally to be between 10-18 falls per 1,000 occupied bed days, this translates to between 10-15 falls per month on a 28 bedded ward. Of all the falls in hospital it is reported that 30-40% results in a documented physical injury.

In South Tyneside, there were 430 emergency admissions to hospital due to fall among old people during 2007/08. 80% of those falls are among 75 years and over old. 9% of those emergency admissions die due to fall or fall-related injuries.

The annual incidence of falls in people with dementia is 40-60%, twice the rate of the equivalent cognitively normal older population. Serious injury is more common and one quarter of patients with dementia who fall sustain a fracture. In addition, patients with dementia who fall are less likely to make a satisfactory recovery from the injury, five times more likely to be institutionalised and after hip fracture have a 6 month mortality of 72%, more than three times that of cognitively intact patients.

Environmental factors play a part in approximately half of all falls that occur at home. For older people, decent homes are important as non decency may contribute to 'environmental hazards' related to falls. According to the English House Condition Survey 2003/04, older people are more likely to live in non decent homes. The survey found that:

- 33% of those aged 65+ live in non decent homes
- 60% of those aged 65+ living in private rented accommodation fail the decent homes standard
- 33% of those aged 65+ living in housing association accommodation fail the decent homes standard

Falls and falls-related injuries seriously affect older people's quality of life and present a substantial burden to healthcare system. The resulting annual cost to the NHS is around £2 billion, of this, 45% is for acute care. The rest is for social care and drugs.

The cost of one emergency hip fracture for acute care alone is approximately £10,000-£12,000. According to hospital emergency admissions data there were 150 (out of 184) hip fractures emergency admissions for 65 and over in 2007/08, which resulted in a cost for South Tyneside of £1.8 million to the NHS. If approximately 30% of falls could be avoided this would save the PCT more than £0.5 million.

The average number of bed days per hip replacement is approximately 13.3 nationally. As 95% of hip replacements are the result of a fracture following a fall, this results in a total of around 2000 bed days in local hospitals due to hip fractures emergency admissions alone.

One emergency ambulance call out, with or without admission to hospital, costs approx £200.

In 2003, 1.5% of older people lived in care homes. Each year, an average nursing home with 100 beds reports 100 to 200 falls. Many falls go unreported. As many as 3 out of 4 nursing home residents fall each year; that is twice the rate of falls for older people living in the community. Patients often fall more than once. The average is 2.6 falls per person per year. About one out of 1000 nursing home residents die each year from fall-related injuries.

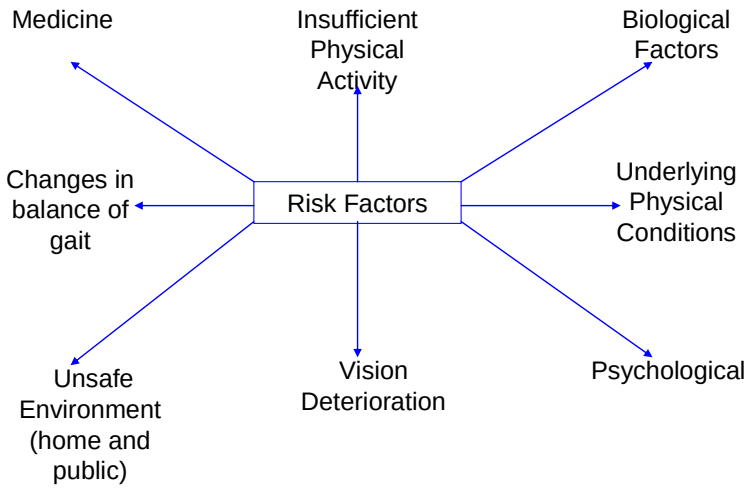
Those who experience non-fatal falls can suffer injuries, have difficulty getting around and have a reduced quality of life. About 10% to 20% of nursing home falls cause serious injuries. The most common causes of falls among nursing home residents are: muscle weakness and walking or gait problems (accounting for up to 24%); environmental hazards (16% to 27%) and medication, particularly those drugs which affect the central nervous system. An effective falls prevention programme requires a combination of medical treatment, rehabilitation and environmental changes. It is estimated that 30% of osteoporotic fractures in care homes could be prevented if elderly women were offered calcium and vitamin D supplements.

EVIDENCE BASED GOOD PRACTICE

Falls are not an inevitable consequence of aging, but falls do occur more often among older people because fall risk factors increase with age and are usually associated with health and aging conditions.

Falls are often multi-factorial in cause, and influenced by the patient's medical and physical condition, availability and accessibility to staff as well as environment factors as shown in Figure One. It is recommended that strategies be put in place to identify patients at risk of falling as well as management plans to reduce these risks. For further detail please see Appendix 1.

Figure One: Major Causes of Falls Among Older People



Modifiable fall risk factors include muscle weakness, gait balance and balance problems, poor vision, use of psychoactive medications, and home hazards.

Understanding these risk factors is the first step to reducing older people falls. Literature reviews show that a reduction of 18% of falls among older people can be achieved through implementing an evidence-based falls care programme that addresses these modifiable risk factors.

Most effective interventions focus on exercise, alone or part of a multifaceted approach that includes medication management, vision correction, and home modifications as shown in Table Two.

Table Two: Possible Modifiable Falls Risk Factors *

Risk factor	Able to be modified?	Intervention strategies
Advanced age	No	Can be used to identify high-risk populations.
Female	No	Can be used to identify high-risk populations.
Living alone	Possibly	Can be used to identify high-risk populations. Possible change of living arrangements.
History of falls	No	Can be used to identify high-risk populations. Probably the single best predictor of falls risk.
Inactivity	Yes	Exercise, education.
Limitations in activities of daily living	Yes	Exercise, motor training, use of aids, provision of assistance with ADL.
Medical factors	Possibly	Appropriate medical or surgical interventions. Ancillary treatment for osteoporosis as a mechanism for reducing fracture risk.
Medications	Possibly	Medication withdrawal if indicated, investigation of alternative strategies.
Poor vision	Possibly	Use of appropriate spectacles, medical/surgical interventions, environmental modifications.
Reduced peripheral sensation	No	Look for reversible cause. Discussion of increased risk and compensatory strategies.
Muscle weakness	Yes	Strength training.
Poor reaction time	Yes	Exercise/training of fast, coordinated responses, e.g. exercise to music.
Impaired balance	Yes	Exercise/training involving control of movements of centre of mass.
Impaired gait	Yes	Exercise, training targeting causes, consider use of aids and appliances.
Poor/inadequate	Yes	Provision of appropriate spectacles, footwear,

assistive devices		walking aids, hip protectors and other assistive devices.
Environmental hazards (home, hospital, residential care, public places)	Yes	Instillation of safety features, correction/removal of hazards and associated safety education.

ADL = activities of daily living
* Source: Lord et al (2007)