Major Changes in Fragility Fracture Care in NHS England: incentivising performance

Prof. Keith Willett
National Clinical Director for Trauma Care

The George Institute and Agency for Clinical Innovation Aged Health Network
The national perspective

50% lifetime risk of fragility fracture
1 in 3 have had a herald fracture first

More women over 50 will have a hip fracture than breast cancer
Who is our patient?

Hip fracture patients
Typical UK practice: 100 per 100k pop yr

- Mean age 84 years, 75% female
- 20% unfit for surgery at presentation
- 30% dementia, 20% episode related delirium
- Infection rates
  1-4% wound, 11% chest, 14% urinary
- 30% mortality at one year
  - 3% die prior to surgery
  - 10% die within 30 days of fracture
Annual national perspective (£)

- 76,000 hip fractures – top 10 HRGs
  87% of cost of all fragility fractures
- 1.57 million NHS bed days
- £426 million acute care
  – £13 million per PCT acute care
  – £50 million on-going care
- £2.0 billion total care cost
Typical UK practice in 2008:

100 per 100k pop yr

- 1 in 3 patients waited more than 2 days for surgery
- Median hospital stay (spell) was 23 days
- Mean total stay (spell) 28 days
- 33% need more care support
- 15-20% change residence
There must be **effective communication** with the patient and/or family about treatment decisions.

**Surgical fixation should not be delayed more than 48 hours** from admission unless there are clear reversible medical conditions.

**Multiagency team** including bed managers, social services and intermediate care coordinators
# What about other health priorities?

<table>
<thead>
<tr>
<th>Issues:</th>
<th>Strokes &amp; TIAs</th>
<th>Heart attacks</th>
<th>Fragility fractures</th>
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<tr>
<td>Incidence/year</td>
<td>110,000</td>
<td>275,000</td>
<td>310,000</td>
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<td>Current trend</td>
<td>Falling</td>
<td>Falling</td>
<td>Rising</td>
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<td>NHS bed days*</td>
<td>1.85m</td>
<td>1.15m</td>
<td>1.57m (hips)</td>
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<td>Annual costs</td>
<td>£2.8bn</td>
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Secretary of State, 25th May 2008
House of Commons debate

• Old age is the new middle age
• Improving services for older people should be a priority for the NHS
• ‘expert group’ on falls, fractures and osteoporosis
• National Institute Clinical Effectiveness – working party of guideline development on hips
• Hip fracture key HRG for Trust funding
What could we achieve? Delay to surgery >48 hours

- In Week %
- QTD %
- Schedule 3pt4 Target
- CQUIN Target

500 hip fracture hospital
2 more dedicated lists
0.6wte orthogeriatrician
So what could be achieved?
What can we achieve?  30 day mortality

10% to 7%

Days post-op

2007 2008 2009
DH Systematic approach to falls and fracture care & prevention: four key objectives

Objective 1: Improve outcomes and improve efficiency of care after hip fractures – by following the 6 “Blue Book” standards

Objective 2: Respond to the first fracture, prevent the second – through Fracture Liaison Services in acute and primary care

Objective 3: Early intervention to restore independence – through falls care pathway linking acute and urgent care services to secondary falls prevention

Objective 4: Prevent frailty, preserve bone health, reduce accidents – through preserving physical activity, healthy lifestyles and reducing environmental hazards

NSF, TA161, CG21, Blue Book & NHFD

NSF, TA161, CG21 & Blue Book

NSF, TA160 & CG21

NSF, LTC programmes Social care
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Improve the care, experience and outcomes after hip fracture

Hip fracture patients

Older people

System Reform for Older People

27 April 2011
So what levers have we used?

Fragility Fractures – 2 phases  i) hip  ii) the rest

- HQIP: National Hip Fracture Database (clinical)
- Commissioning Payment by Results (PbR)
  - Best Practice Tariff - key characteristics of NHS pathway
- Local CQUIN data collection, incentives on pathway elements
- NICE – Guidelines on osteoporosis
  hip fracture care – Oct 2010
- QOF in Primary Care: osteoporosis
- DH Social Care: Falls and Fragility Fracture Commissioning Toolkit

. . . . . . . . demonstrate the cost-efficacious case
The National Hip Fracture Database is...

• A clinically led, centrally funded, national audit that seeks to improve hip fracture care

• The British Geriatrics Society and the British Orthopaedic Association
  – jointly promoting collaborative care, rehabilitation and secondary prevention

HQIP Healthcare Quality Improvement Partnership
What NHFD does...

- NHFD collects data on casemix, process and outcomes – including many ‘non-HES’ fields
- web-based feedback
- national benchmarking
- monitor and improve care
- reduce costs
Data Quality

- Real time performance measurement against the national average
- Flagging up improbable data
  - ‘are you sure?’
- Explanations of draft status
  - view of missing fields
- On-line monthly reports
- Centrally-conducted trend analysis
### On-line reports

![Image of online report](https://webrv02.ncasp.org.uk/010/hipfracture.nsf/f019F9BCF011997A4880257673007C7E99/Packard Bell)

#### Hospital Report - BAS, Basildon Hospital

Report run date: 19/11/2009

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<th>Report Options</th>
<th>October 2009</th>
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<td>Bluebook Times Last 12 months</td>
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<td></td>
<td>Avg Time to Theatre (hrs)</td>
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<td></td>
<td>Avg Length of stay (days)</td>
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<table>
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<tr>
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<td>329</td>
<td>89.89</td>
<td>49.98</td>
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What the NHFD told us in 2008?

Inexplicable range for time to surgery from 36% to 92% within 48 hours

“I don’t believe the sun should set twice on a hip fracture”  me 2009
What the NHFD told us in 2008?

Medical preoperative assessments vary from zero to 100%.

75% of patients have little or none.
What is Best Practice Tariff?

- High Quality Care for All (HQCFA) report
- High volume service area
- Significant variation in clinical practice
- Improve both quality and value
- Excellent source of clinical data (NHFD)

Tariffs in 2010/11:
1. Gall bladder removal
2. Cataracts
3. Stroke
4. Fragility hip fracture
At a basic level the tariff is...

- A fixed price
- Priced at national average cost
- Published annually
- Per HRG
- Paid per patient
- At spell level
The best practice tariff aims to...

Reduce unexplained variation in quality and universalise best practice.

- Key clinical characteristics:
  - Surgery within 36 hours
  - Involvement of an (ortho)-geriatrician

- Characteristics are **best practice** – they go beyond the standard
Best practice data field - surgery

All fields need to be completed satisfactorily for an individual patient to get Best Practice Tariff

• Time to **theatre** (all cases) < 36hrs
  - within **36 hours** from arrival in Emergency Department (or time of diagnosis if an inpatient) to the start of anaesthesia
Best practice data fields – care standards

1) Admitted under the joint care of a Consultant Geriatrician & a Consultant Orthopaedic Surgeon
2) Admitted using an assessment tool agreed by geriatric medicine, orthopaedic surgery and anaesthesia
3) Assessed by geriatrician in perioperative period (defined as 72hrs of admission) (Geriatrician defined as Consultant; NCCG or ST3+)
4) Postoperative Geriatrician-directed:
   a. Multiprofessional rehabilitation team
   b. Assess fracture prevention (falls and bone health)

ALL surgery and care criteria must be met for BPT
How have we used it . . . . . ?

National Hip Fracture Database → BPT compliance → Commissioners

Individual patient data

Additional payments quarterly

LOCAL HOSPITAL
The 2010 tariff was paid in two parts...

- NHFD captured compliance with BPT practice criteria
- PCTs to monitor & make additional payments quarterly
- Adjusted for maximum of 85% compliance with surgery

£445
£45k per 100
What did we expect to achieve?
- a reduction in NHS stay

“home to home” reduced by:

- Own home: 2 days
- Care Home: 5 days
- Warden assisted: 8 days
- Community hospital: 12 days

(route of discharge)
So what effect has Best Practice Tariff had?

Step wise improvement
100% of hospitals registered
93% returning data
Trend in BPT uptake Q1-Q3 of 2010

Q1 – 24%
Q2 – 28%
Q3 – 35%
Trend in BPT uptake Q1-Q3 of 2010

- Q1: 24%
- Q2: 28%
- Q3: 35%
<table>
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<tr>
<th>Quarter</th>
<th>Percentage</th>
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<td>Q1</td>
<td>24%</td>
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<tr>
<td>Q2</td>
<td>28%</td>
</tr>
<tr>
<td>Q3</td>
<td>35%</td>
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Improvement? (Q1 to Q3)

To surgery in less than 36 hrs
- 63% to 69%

Best Practice Tariff
- 35% to 45%
Increase in orthogeriatric provision

In a subset of 87/192 hospitals that have submitted full data to the NHFD for 2010 and 2011:

- OG consultant hours up by 27% (mean)
- OG middle grade hours up by 63% (mean)
- OG ward rounds up by 35% (mean)
EXAMPLE: Hospital “X”

- Until August 2010 the 2 part time OG's declined to allow their GMC number to be used – on issues of “token OG service only”

- In August 2010 they were allocated junior staff and were happy that they were doing a 'proper' OG job and allowed their GMC numbers to be used on appropriate patients.

- In November a 3rd part time OG returned from maternity leave and now they have all systems in place.

- Orthogeriatrician GMC 0 to 92% entry (Q1 to Q3)
- Patients qualifying for BPT 0 to 54% (Q1 to Q3)
So how was it at the end of 2010?

- **Re-evaluation** of the best practice tariff:
  - Patient level performance reported by **national clinical audit** NHFD
  - Option to retain or increase incentives
  - Develop 2011/12 tariff informed by evaluation and the published **NICE clinical guideline**
Time to surgery 36 hours

- Perform surgery on the day of, or the day after, admission.
- Identify and treat correctable co-morbidities immediately so that surgery is not delayed

Involvement of an (ortho)-geriatrician

- Orthogeriatric assessment, rapid optimisation of fitness for surgery, co-ordinated orthogeriatric and multidisciplinary review
- Early identification of individual goals for multidisciplinary rehabilitation to recover mobility and independence, and to facilitate return to prefracture residence and long-term well-being.
- Communication with the primary care team.
- Offer early supported discharge.
So from April 2011 ……

- NHFD capturing compliance with clinical practice
- PCTs monitor and make additional payments quarterly
- Base payment re-adjusted to recognise compliance

£890

£89k per 100
What does it mean once I’ve had a hip fracture? (average age 84 years)

10% chance of death in 30 days
30% chance of death this year
45% chance I’d had one or more herald fractures (ignored!) 7% chance I’ve had 3 previous #’s
If I survive the next 2 years I have a 1 in 6 chance of one or more further fragility fractures and a 1 in 10 chance that’s the other hip.
The importance of prevention strategies . . .

Morbidity

Hip fracture

Vertebral fractures

Wrist fracture

Hip fracture patients

Additional morbidity attributable to fragility fractures

Morbidity associated with ageing alone

Age
The evidence for change

For each 1000 fragility fracture patients (1m pop) per year:
740 require treatment (7x usual)
results in 30-60 fewer hip #'s
including 18-30 hips
40 QALYs

Best performer (Kaiser Perm) produced 25% reduction in hip fracture rate after 5 years
What does it mean for a 50 yr old woman?

3% a yr

Individuals at high risk of 1st fragility fracture or other injurious falls

Older people

Lifetime # risk: 11% hip, 17% wrist: TOTAL 53%

27 April 2011
The National Falls and Bone Health Audit

National Clinical Audit of Falls and Bone Health in Older People

Commissioned by:
The Healthcare Commission

Conducted by:
The Clinical Effectiveness and Evaluation Unit, Royal College of Physicians, London

Advised and approved by:
The Falls and Bone Health Steering Group

Scope:
A sample audit of the organisation of services provided to older people for falls prevention and bone health

Timescale: First audit in 2005. Last in 2010

Details of what is measured:
• Falls service provision for assessment &/or treatment in care homes. Care home policy and procedures
• Standards from NSF, NICE and NPSA
• Commissioning strategy and lead individuals. PCT Board reporting.
• Uptake by GPs of clinical directed enhanced services
• PCT monitoring of management of osteoporosis
• Ambulance assessments
• Acute trust policies and procedures

Executive Summary – November 2007
Secondary prevention - Bone health
Hip fracture v Non-hip fragility fracture

Interventions following low trauma fracture Oct-Dec 2006
England, Wales and NI (n=8826)

- Osteoporosis assessment
- DXA referral (65-74 years)
- Supplementation with calcium + D3
- Treatment with osteoporosis medication

50% osteoporosis

Percentage

Hip fracture
Non-hip
I. We will give patients more information and choice about their care – in future ‘there will be no decisions about me without me’


I. We will improve health outcomes to among the best in the world

remove unjustified targets: NICE Quality Standards and outcomes

I. We will hand back power to patients and the NHS professionals who treat them: We will empower doctors to deliver results – putting them in charge of what services best meet the needs of local people

NHS Commissioning Board: GP commissioning 2013: F Trusts

I. We will also remove unnecessary bureaucracy, cut waste and make the NHS more efficient

Monitor as financial regulator, CQC for quality and safety

£20 billion savings over 4 years
The Operating Framework
for the NHS in England 2011/12
Fragility fractures in the elderly, especially in women

- 4.67 The introduction of the best practice tariff for hip fracture in 2010 has proved successful in transforming the care on admission of those who suffer fragility fractures. PCTs are also asked to take steps to reduce incidence. The best way to prevent this transformative injury is to recognise precursor or “herald” fractures and give patients a bone health assessment and treatment when they first show clear signs of being at risk.
Outcomes Framework

QIPP

- Preventing people from dying prematurely
- Enhancing quality of life for people with long-term physical and mental health needs
- Helping people to recover from episodes of illness or following injury
- Ensuring people have a positive experience of care
- Treating and caring for people in a safe environment and protecting them from avoidable harm
1. Preventing people from dying prematurely
   - Overarching indicators
     - Premature mortality from causes considered amenable to healthcare
       (The Commissioning Board would be expected to focus on improving mortality in all the components of amenable mortality as well as the overall rate)
     - Life expectancy at 75
   - Improvement areas
     - Improving survival rates for people with cancer
       For the three major amenable cancers (colorectal, breast and lung)
       - One-year survival rates
       - Five-year survival rates
     - Reducing premature death in people with serious mental illness
       - Premature mortality rates in people with serious mental illness
     - Reducing deaths in young children
       - Infant mortality
       - Perinatal mortality (including stillbirths)

2. Enhancing quality of life for people with long-term conditions
   - Overarching indicator
     - Health-related quality of life for people with long-term conditions
   - Improvement areas
     - Ensuring people feel supported to manage their condition
       - Proportion of people feeling supported to manage their condition
     - Improving functional ability in people with long-term conditions
       - Employment of people with long-term conditions
     - Reducing time spent in hospital by people with long-term conditions
       - Unplanned hospitalisation for chronic ambulatory care sensitive conditions (adults)
       - Unplanned hospitalisation for asthma, diabetes and epilepsy in under 19s
     - Enhancing quality of life for carers
       - Health-related quality of life for carers
     - Enhancing quality of life for people with mental illness
       - Employment of people with mental illness

3. Helping people to recover from episodes of ill health or following injury
   - Overarching indicators
     - Emergency admissions for acute conditions that should not usually require hospital admission
     - Emergency readmissions within 28 days of discharge from hospital
   - Improvement areas
     - Improving outcomes from planned procedures
       - PROMs for elective procedures
     - Preventing lower respiratory tract infections in children from becoming serious
       - Emergency admissions for children with LRTI
     - Improving recovery from injuries and trauma
       An indicator needs to be developed.
     - Improving recovery from stroke
       An indicator needs to be developed.
     - Improving recovery from fragility fractures
       - The proportion of patients recovering to their previous levels of mobility / walking ability at 30 and 120 days
     - Helping older people to recover their independence after illness or injury
       - Proportion of older people (65 and over) who were still at home after 91 days following discharge from hospital into rehabilitation services

4. Ensuring that people have a positive experience of care
   - Overarching indicators
     - Patient experience of primary care
     - Patient experience of hospital care
   - Improvement areas
     - Improving people’s experience of outpatient care
       - Patient experience of outpatient services
     - Improving hospitals’ responsiveness to personal needs
       - Responsiveness to in-patients’ personal needs
     - Improving access to NHS services
       - A&E access
       - Primary Care access
     - Improving women and their families’ experience of maternity services
       - Patient experience of maternity services
     - Improving the experience of care for people at the end of their lives
       - Survey of carers
     - Improving experience of healthcare for people with mental illness
       - Patient experience of community mental health services
     - Improving children’s experience of healthcare
       An indicator needs to be developed, although this may be difficult to measure.

5. Treating and caring for people in a safe environment and protect them from avoidable harm
   - Overarching indicators
     - Three part measure patient safety measure consisting of:
       - patient safety incident reporting;
       - severity of harm; and
       - number of similar incidents.
   - Improvement areas
     - Reducing the incidence of avoidable harm
       - Incidence of hospital-related VTE
       - Incidence of healthcare associated infection (looking at MRSA and C Difficile)
       - Incidence of newly-acquired category 3 and 4 pressure ulcers
       - Incidence of medication errors causing harm
     - Improving the safety of maternity services
       - Unexpected or unplanned admission of term baby to neonatal care
     - Delivering safe care to children in acute settings
       - Incidence of harm to children due to ‘failure to monitor’
3a. Emergency readmissions within 28 days

3.3 Improving recovery from injuries and trauma

3.5 Improving recovery from fragility fractures

The proportion of patients recovering their previous mobility at 30, 120 days
From June 2010: INDICATOR DEVELOPMENT:
The recommendations from the committee were worked up by the National Primary Care Research and Development Centre and the York Health Economics Consortium (NPCRDC/YHEC)

From October 2010 INDICATOR PILOTING:
Sample of GP practices. Assessed against the experiences of GPs and patients, and capacity and workload issues and assess technical feasibility.

March-May 2011 PUBLIC CONSULTATION:
The consultation is meaningful and examples already exist where the consultation process has had an influence on outcomes. It will be important to feed in information about the availability of DXA at this point.

June 2011 PRIMARY CARE QOF ADVISORY COMMITTEE MEETING:
Will reach a decision whether to include the indicator. August 2011 GPC - NHS Employer Negotiations

GP Commissioning and Primary Care become VERY important!
Objective 1: Improve outcomes and improve efficiency of care after hip fractures – by following the 6 “Blue Book” standards

Objective 2: Respond to the first fracture, prevent the second – through Fracture Liaison Services in acute and primary care

Objective 3: Early intervention to restore independence – through falls care pathway linking acute and urgent care services to secondary falls prevention

Objective 4: Prevent frailty, preserve bone health, reduce accidents – through preserving physical activity, healthy lifestyles and reducing environmental hazards
still to come . . . .

Consultations on White Papers:
• Public Health Service
• Social Care

RCP Bone Health and Falls Audit Summer 2011

Patient Experience studies:
• Dept of Health, Age UK

Support national programmes of:
• National Osteoporosis Society
• Age UK

Tariff restructuring of Recovery, Rehabilitation and Reablement
1. Rehab resources locked-in acute unit, 2. Wrong match nursing: rehab intensity
3. Step down to community, 4. Primary care and social care recipients but no influence
“change the tariff at the point when the patients’ needs change and not when they change institution”

Assessment – prescription for recovery primary care and social care and patient

Recovery, rehabilitation and re-ablement

Need for clinical input/support

Pre admission community phase

Acute phase

RRR HRG group

1 crosses secondary – community, 2. unlocks rehab resource for different models
3. Puts primary care and social care at earliest point in rehab, 4. an option to fit LTC?
So for England it all comes together mid 2011

- NHFD and RCP audits (BPT)
- NICE Hip Fracture Guidance
- Primary Care contract QOF decision
- Outcomes Framework indicators
- NICE Quality Standards
- Social Care outcomes

. . . . . So what about Australia?
Preoperative medical assessment (Blue Book Standard 4)

Chart 14

NHFD data 2010
But it’s held my weight for years
Relevant draft outcomes

- People with **long term conditions supported** to be independent and in control *(SC/NHS)*
- **Functional ability** in people with LTC *(SC/NHS)*
- Improving **recovery from fragility fractures** (proportion recovering to their previous levels of mobility at 30 and 120 days) *(NHS/SC)*
- Older People **discharged from hospital to rehab settings who are living at home** 91 days after discharge *(SC)*
- Proportion of people suffering **fragility fractures** who recover to previous level of mobility at 120 days *(SC)*
- Acute admissions / bed days as a result of **falls** *(SC/PH)*
- Incidence of **fragility fractures** *(PH)*
NICE bone health

NICE Technology Appraisal 161 (pending Court of Appeal)

“Indicator(s) to be developed that addresses secondary prevention of fragility fractures in people with a history of fragility fracture using appropriate bone-sparing agents and calcium and vitamin D supplementation as appropriate”

DH requested NICE to develop Short Guidance on assessment of patients with osteoporosis (2010)
How the outcomes fit together. Many Outcomes common to all 3

ASC and NHS: Supported discharge from NHS to social care. Impact of reablement services on reducing repeat emergency admissions. Supporting carers and involving in care planning.

ASC and Public Health: Preventing avoidable ill health or injury, including through reablement services and early intervention.

NHS and Public Health: Preventing ill health and lifestyle diseases and tackling their determinants.

The new system

Department of Health

NHS

NHS Commissioning Board

GP commissioning consortia

Monitor (economic regulator)

CQC (quality regulator)

Providers

Local authorities (via health & wellbeing boards)

Social care (in local authorities)

Public Health England (part of DH)
How will the NHS Commissioning Board breathe life into the NHS Outcomes Framework?

1. **Domain 1**
   - Preventing people from dying prematurely

2. **Domain 2**
   - Enhancing the quality of life for people with LTCs

3. **Domain 3**
   - Recovery from episodes of ill health / injury

4. **Domain 4**
   - Ensuring a positive patient experience

5. **Domain 5**
   - Safe environment free from avoidable harm

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**NHS OUTCOMES FRAMEWORK**

- **Domain 1**
- **Domain 2**
- **Domain 3**
- **Domain 4**
- **Domain 5**

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**NICE Quality Standards**

Building a library of approx. 150 over 5 years

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**Commissioning Outcomes Framework**

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**Commissioning Guidance**

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**Provider payment mechanisms**

- Tariff
- Standard contract
- SQUIN
- OOP
NHFD data 2010

Surgery in 36 hrs, with falls and bone health assessments

Chart 21
Reason for no operation in 48 hours

Chart 10
BMJ Careers

- 59 Consultant advertisements in England
- 44 jobs
- In the past 6 months 41% of jobs on offer are readvertisements!
BMJ Careers

• “as part of DoH guidelines”

• “the post has been possible due to new investment being made available”

• “subspecialty interest in orthogeriatrics particularly welcome”

• “in line with current guidelines”

• “you will have a subspecialty interest in falls, syncope and orthogeriatrics”