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Secondary Prevention of Falls and
Fractures: a challenge to specialist and
community integration

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What is the title getting at?

- **Secondary prevention**
 - From single faller +/- additional risks to fractures
- **Specialist – Community**
 - Acute services to community services
 - Specialist or generic
 - Interventions for the person could be generic
 - Interventions could be delivered via generic providers

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Some history

- Falls have always been core business
- Tinetti 1994 - targeted interventions
 - Selection on risk factors
- A&E fallers – Close et al 1999, etc
 - Selected for secondary prevention
- NSF 2001
- AGS/BGS guidelines 2001, (and 2008)
- NICE CG 21 2004
- SDO Report 2007
- Cochrane Review update 2008
 - direct interventions better than referrals

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So where do we focus efforts

- Case finding high risk populations
- Treating high risk populations

- Case finding lower risk populations
- Treating lower risk populations

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How are we doing?

- With high risk?

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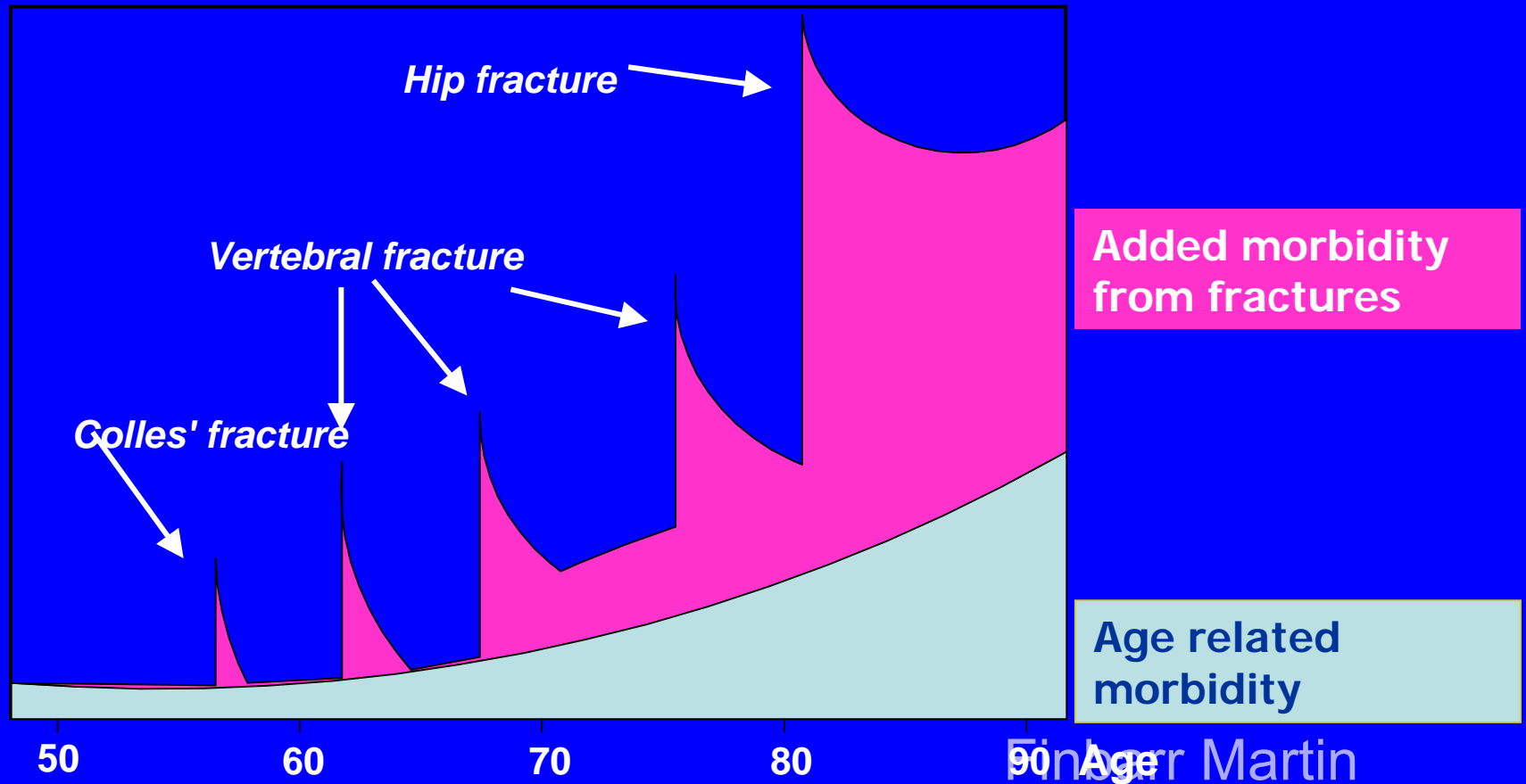
Is there a successful model?

- YES, **fracture liaison**
- Prototype from Glasgow (McLennan et al)
- Now about 25-30% services
- Must be falls as well as fractures (Langridge et al, 2008)

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Why target fragility fractures ?

Morbidity



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Fall prevention is essential to reduce fracture incidence in elderly women - independently of osteoporosis treatment

1197 German women age 60-90 followed up for 2 years in an osteoporotic risk factor survey

• Falls / Fractures ratio

–Osteoporotic - every third faller (33.7%) sustained a fracture

–Osteopenic - every fourth faller (24.8%) sustained a fracture

–Normal - every fifth faller (20.3) sustained a fracture (p<0.01)

[Boerst, Felsenberg et al; ECCEO 2006. Osteoporosis Int 2006; 17 (suppl 1: S94)]

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How are we doing nationally?

RCP Clinical Audit 2006-7

(Healthcare Commission)

- Individual 65+ patient level data
- Patients attending A&E or MIU with
 - Non-hip fractures (40) – Group 1
 - Fractures of radius and ulna, humerus, pelvis or vertebra
 - Hip fractures (20) – Group 2
 - Single hip fracture

Chosen because simple to define, good evidence base,
benefit from treatments

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Multi-disciplinary falls risk assessment & treatment

	Non-Hip (%)	Hip (%)
Syncope considered	17 (19% yes)	22 (14% yes)
Medication review	31	44
Gait & balance assessed	28	68
Evidence based exercise programme	8	22
Home hazard assessed	14	51

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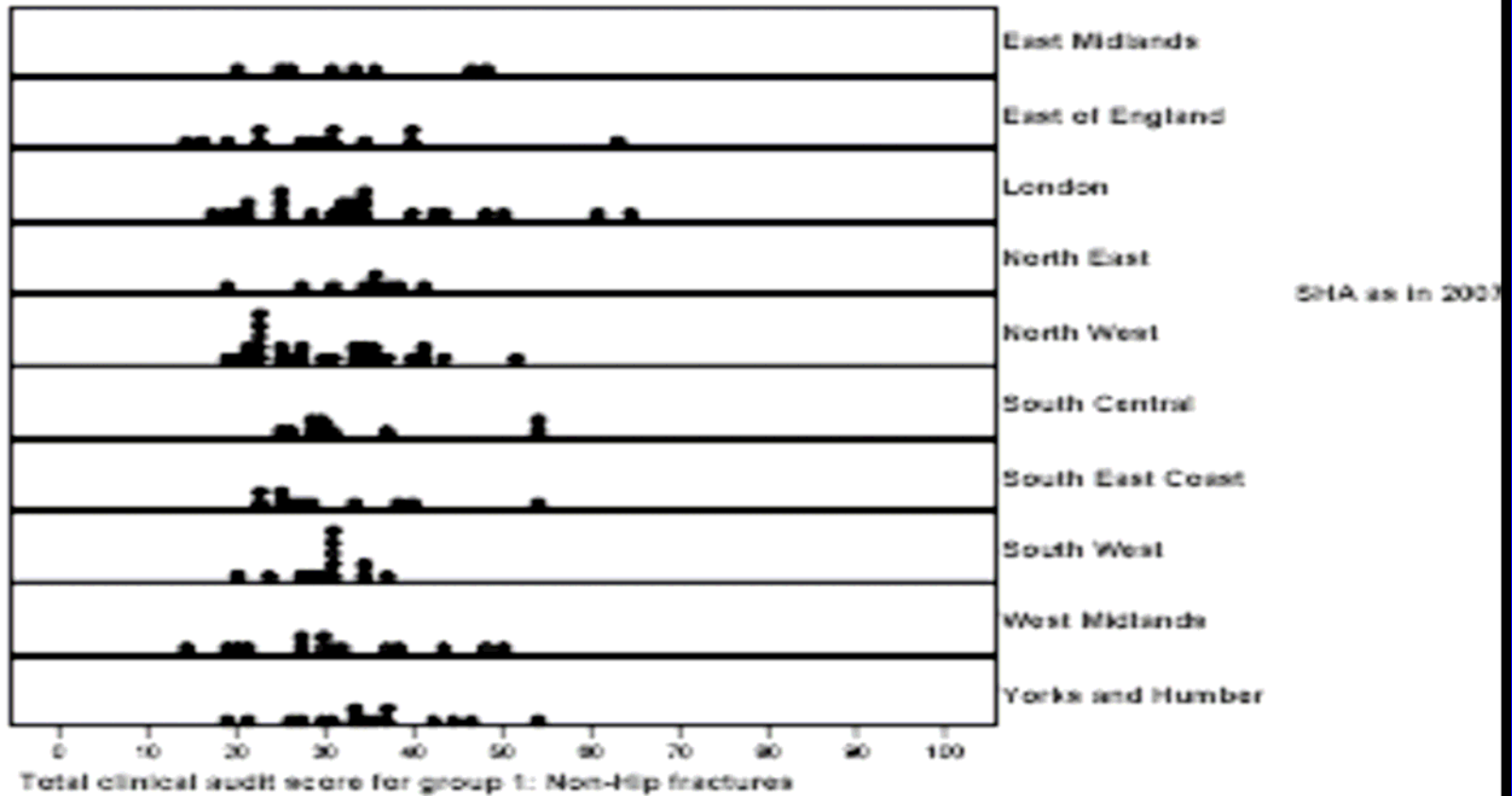
Secondary bone assessment and treatment

	Non-Hip (%)	Hip (%)
OP risk assessed	19	35
DEXA 65-74 y (TAG87) <i>50% showed OP</i>	19	18
Calcium/ Vit D at 16 w	23	52
Bisphosphonate (or other)	20	43

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National comparisons - non hips

MEAN clinical audit score for each audit site by SHA



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Issues in deciding a strategy

Secondary prevention

- How important is medical diagnosis - since most interventions are not disease specific
- How to focus the effort/time/money to identify those for whom it is specific
- Is multifactorial treatment always needed
 - Strength and balance training alone is nearly as good for
 - women over 80
 - non-confused older people with sight

(Campbell and Robertson, *Age Ageing* 2007; **36**: 656–662)

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Secondary prevention for the frail population – moderate risk

The presence and development of incontinence, falls and ADL dependency in community old people has

shared risk factors:

- cognitive impairment
- gait and balance decline
- visual impairment

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Theobalds
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So falls need addressing along with the other geriatric giants

- One of the main risk factors is low physical activity
- Can the right things be embedded in routine non specialist care in the community?

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What influences mobility limitation in later life?

Chronic diseases

Responses to pre-clinical disability (modification etc)

Habitual physical activity

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Connecticut non-randomised study

Tinetti et al *NEJM* 2008; 359:252-261

- Modifying routine primary + community based services
- Intervention area = 522 primary care clinicians -multi-disciplinary + rehabilitation services + acute hospitals
- Control area = similar with 460 clinicians
- Intervention: Multiple methods of training to change practice with patients 70+ medication reviews, management of OH, visual and foot problems, hazard reduction and gait and balance training (60-80% did so)

Result

- **11% (CI 8-14%) reduction** in injurious falls plus reduction in health care use related to falls

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Who needs an individual level approach ?

- Recurrent unexplained fallers in the community
 - Assessment triggers, including for syncope
- Presenter at the ED or equivalent
 - Care pathways
- Institutional residents
 - Care planning and respond to clinical change
- Fragility fractures
 - Fracture liaison services

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How to achieve change?

- Clarity about what needs doing
- A clear strategy to do it
- Motivation to do it
- Help to achieve it
- Knowing if it is happening

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Strategies to promote change

- Top down pressure
- Create inter-specialty collaboration
- Clinical performance data in routine services
- Guidance for commissioners
- Better metrics
- Financial incentives

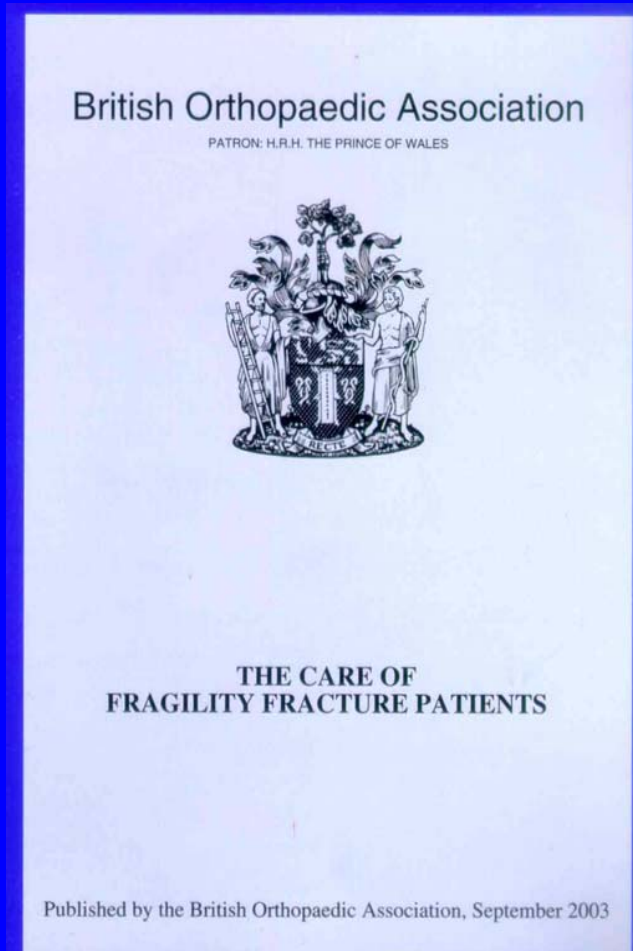
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Top down pressure

- National audits
 - Government obliged to respond to national results
 - Used for trusts assessment by the national quality inspections

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Create inter-specialty collaboration



Memorandum of Understanding

- British Geriatrics Society
- British Orthopaedic Association

The Blue Book

Authoring group

Orthopaedics

Primary care

Anaesthesia

Geriatrics

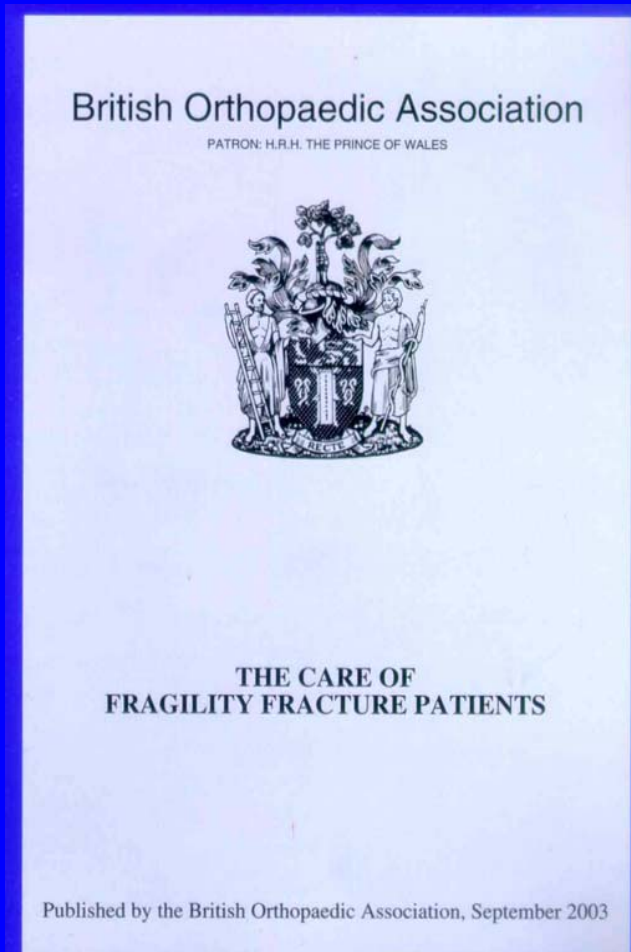
NOS

Nurses

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Use clinical performance data in routine services



Six standards in the Blue Book

- Admission within 4 hours
 - Surgery within 48 hours
 - Management of pressure
 - Orthogeriatric medicine
 - Treatment to prevent osteoporotic fractures
 - Falls prevention
- measured via the

National Hip Fracture
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Database
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Dept of Health Guidance for PCT Commissioners (etc)

AIM – to reduce the burden of disease
(morbidity, mortality, QoL) from falls and
fragility fractures

Objectives:

- better commissioning
- Better services
- Better integration of services
- Raise public expectations

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Falls & Fragility Fractures Commissioning Toolkit

- Web based care pathway
 - Broad remit but focus on secondary prevention
- Evidence based with economic case
- Service models proposed
- Links to sources eg job descriptions
- Suggestions for clinical governance - promote NHFD
- Suggestions for performance metrics

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Better metrics and Financial incentives

Information Centre for Health & Social Care

- Dashboard of service and outcome data to benchmark local performance

Commissioning costs linked to service quality

- for Hip Fractures – proposed for April 2010

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Summary

- **Focus** within a broad approach
- Professional and political levers
- Top down and Bottom up
- Spread successful service models
- Use quality incentives – measurement
- Use cost incentives

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