Orthogeriatrics How The UK Care For Fragility Fractures

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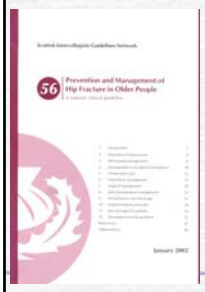
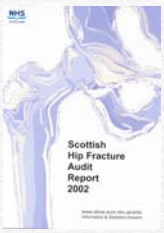
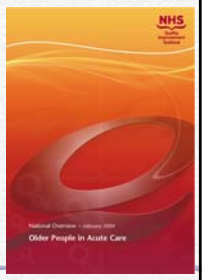
Guidelines to standards







The NHFD Project

- jointly led by BOA and BGS with the involvement of the RCN (SOTN)

- Take the established continuous hip fracture audits in Scotland, Northern Ireland, Cardiff, Nottingham, Oxford etc
- Combine them into a national database
- Invite new fracture units to contribute via the web, aiming eventually to include every UK fracture unit
- Establish a professional steering group to manage analysis of, and access to the data
- Feed back to units their performance compared to national

NHFD – What's the point?

- To change the behaviour of clinicians who look after patients with fragility fractures
- To change the attitude of healthcare commissioners to musculoskeletal medicine

Blue Book (2007) - main points

We need to develop a multidisciplinary, integrated model for management of a multi-faceted chronic disease which will affect many years of a patient's life

- Integration of treatment and prevention (of fractures)
- Integration of falls prevention and bone health
- Integration of primary and secondary care roles
- Full use of the skills and insights from all professions working in the fields of
  - Orthopaedics
  - Geriatric medicine
  - Rheumatology, metabolic medicine etc
  - Primary care

Aims of Blue Book

•To provide excellent surgery, despite the challenges of osteoporotic bone
•To introduce reliable secondary prevention, i.e. treatment of underlying osteoporosis or tendency to fall
•To promote excellent all-round medical care and rehabilitation, despite the many co-morbidities of patients presenting with a hip fracture.

SIX STANDARDS

- Admission to an orthopaedic ward within 4 hours.
- Surgery for those who are fit within 48 hours and during normal working hours.
- All patients assessed and cared for with a view to minimising risk of pressure ulcer development.

SIX STANDARDS

- All patients with fragility fracture should be managed on a ward with routine access to acute ortho-geriatric medical support from admission.
- All patients admitted with fragility fracture should be assessed to determine their need for anti-resorptive therapy to prevent future osteoporotic falls.
- All patients admitted with a fragility fracture, following a fall, should be offered a multidisciplinary assessment and interventions to prevent future falls.

Fracture epidemiology Edinburgh Trauma Unit

- Analysis of year 2000
- Adults (12 years and over)
  - 534,715 people
  - 5953 fractures
- All reviewed at fracture clinics or admitted
- Diagnosis made from x-ray review
- Analysis of incidence by age

Osteoporotic fractures

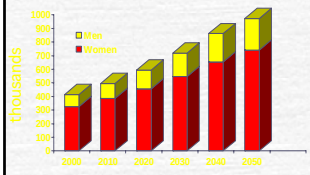
- Proximal humerus
- Distal humerus
- Olecranon
- Proximal radius and ulna
- Distal radius
- Proximal femur
- Subtrochanteric femur
- Distal femur
- Bimalleolar ankle
- Trimalleolar ankle
- Thoracolumbar vertebrae
- Pelvis
- Multiple injuries

Osteoporotic fractures

- 52.1% of all fractures
- 30.1% of fractures in males
- 66.3% of fractures in females
- 34.7% of outpatient fractures
- 70.4% of inpatient fractures

Why focus on hip fracture?

Hip Fracture Incidence
Forecast in European Community



European Commission, 1998

~20% excess mortality at 1 yr

25% never get back to own home

80% elderly women would rather die than have a hip fracture

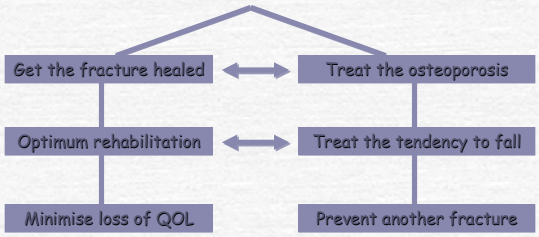
Tests the whole system:

Orthopaedics

Geriatrics

Social services

Our goals



Analogy between MI and hip fracture

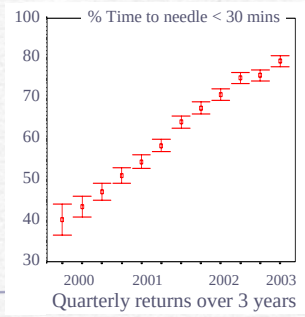
- Both life-threatening, sentinel events carrying a secondary prevention implication
- Acute issues: time to thrombolysis needle, time to op
- Follow-on issues: rehabilitation and secondary prevention
- MI and hip fracture incidence easy to measure
  - 'cardiovascular health' or 'falls' hard to measure

MINAP

Myocardial Infarction National Audit Project

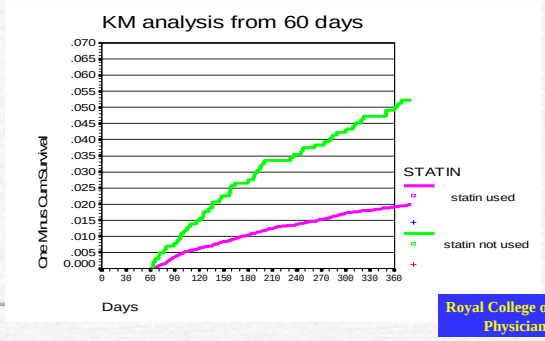
- Royal College of Physicians
  - Clinical Effectiveness Unit
- Web-based entry of simple data from all CCUs
  - Record linkage to national datasets eg ONS (mortality)
- Database centrally funded, voluntary local data entry
- Powerful data to argue for investment in the service, policy change etc

Feedback drives improvement in time-to-needle



Royal College of Physicians

Deaths following MI



Royal College of Physicians

NHFD – main tasks

- Establish the national database
  - Standard dataset
  - Populate by uploads from local audits
  - Professional steering group to oversee analysis and dissemination
- Roll-out to fracture units currently without hip audit. Need local packages of:
  - Web-based input mechanism or compatible local audit software
  - Specialist nurses or other staff combining local roles:
    - Smoother management of hip and other elderly fractures
    - Secondary prevention
    - Collection of NHFD data

NATIONAL HIP FRACTURE DATABASE

Minimum data set

Minimum data set

Day 0 - admission data

1 Age and sex
2 Fracture type
3 ASA grade
4 Mobility score
5 Residence score

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Process data

6 Time to acute orthopaedic ward
7 Time to theatre
8 Operation type
9 Specialist review in respect of 2^0 prevention

Day 30 - status data

10 Residence score plus mortality
11 Date of death or discharge

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Central data analysis

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Central data analysis

Output

Casemix adjusted 30 day mortality
Casemix adjusted 30 day return home
Delay in transfer to trauma ward
Delay in operation
Rates of different operations
Rates of 2^0 prevention provision

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Optional additional fields

Extended datasets for:
casemix
care pathway
surgical care
2^0 prevention

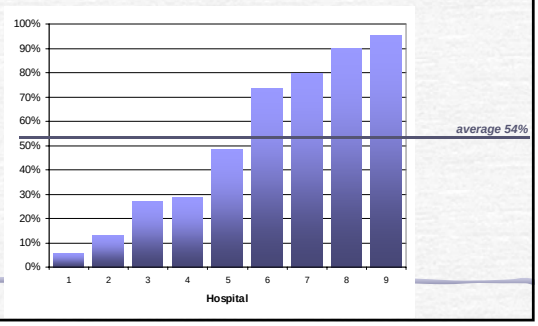
Outcome data at:
120 days
365 days

Facilities audit

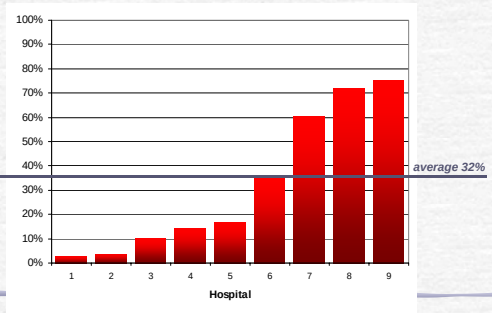
WHERE WERE WE IN THE UK BEFORE NHFD

Remember this is taken from units doing audit!

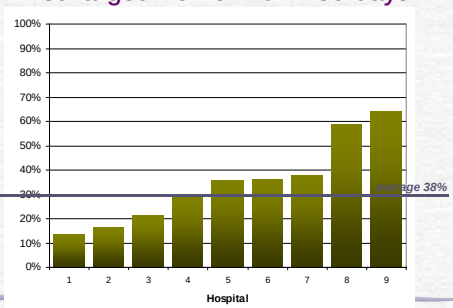
Surgery within 48 hours of admission



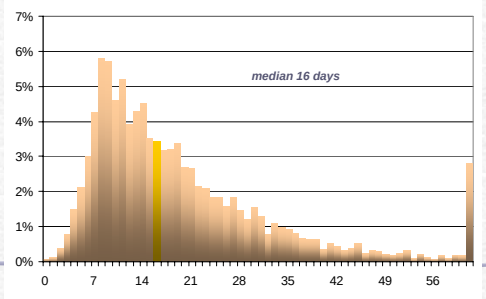
Surgery within 24 hours of admission



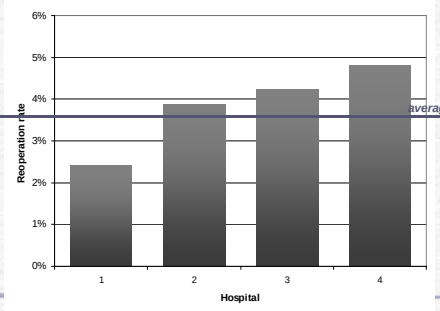
Discharged home within 30 days



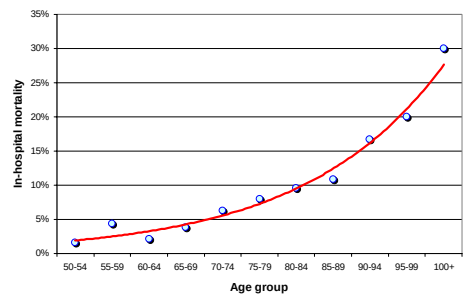
Length of stay



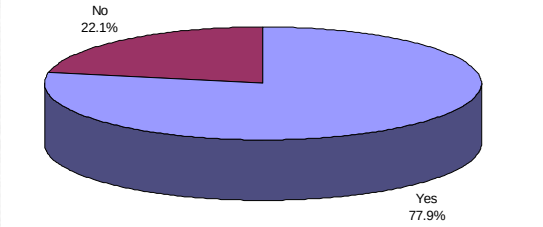
Reoperation rate



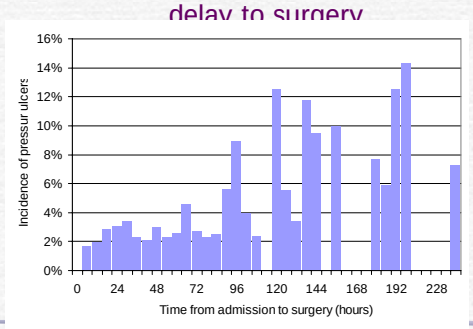
Mortality in Hospital



Anti-Resorptive Therapy



Incidence of pressure ulcers is related to delay to surgery



How my hospital is getting there

- No audit previously undertaken
- We had established a robust team which had effected positively many aspects of care.
- We needed funding
- We want to improve care
- We are inputting data but we could and will improve.

What's happening now

- Anonymous First National Report Produced.
- Series of Regional Meetings – to encourage/Facilitate Participation.
- 3years of National Funding Agreed.
- Audit/Evaluation of Data accuracy.
- Hip Fracture Specifically taking a higher priority, NHS Institute, Nice Guideline Development due in 2011. Best Practice Tariff

What the first report identifies

- Only 35% of patient operated on within 24 hours, 69% within 48 hours.
- Only 58% seen pre-op by a physician and 12% of hospitals have no ortho-geriatrician.
- 40% of patients discharged from hospital with no assessment of bone health, 56% no falls risk assessment.

Improving Hip Fracture Care

Summary

- Patients need an interdisciplinary, chronic disease-model approach
  - involving primary and secondary care, surgeons and physicians, nurses and the wider interdisciplinary team
  - integrating prevention and treatment of fractures
  - monitoring quality
- In UK, an orthogeriatric-based service incorporating NHFD is felt to be the best way to
  - Raise consciousness and change behaviour
  - Monitor quality and raise standards