A solution for better health outcomes for osteoporosis in NSW

27 May 2011
Overview

▲ Overwhelming evidence:
- Increased morbidity and mortality for people with osteoporotic fractures
- Ineffective identification at all stages patient journey
- Effective prevention not being implemented

▲ NSW ‘same hospital’ data:
- 35% re-fracture rate
- Average LOS re-fracture 22 days = 16,225 days/year

▲ ACI survey of services 2009:
- 3 sites AHS funding
- 5 nurses, 5 doctors and 1 allied health
NSW DoH Official Figures*

▲ Total HNEAHS fractures (DoH):
- July 2002 – June 2008 (6 years)
  “Osteoporosis with pathological fracture”
  1506 patients! (251 patients per year!)

▲ ACTUAL (HNEAHS):
- 2007 – 2010 MTF (3 years)
  4272 patients! (949 per year!)
  60% clinic patients currently require treatment
  2848 must have osteoporosis with fracture

?Coding issue

* Slide courtesy of Royal Newcastle Centre
Evidence

- Occurs in both men and women
  - Men account > 29% fractures and 25% costs
  - Men account > 29% fractures and 25% costs

- Increased morbidity and mortality for people who have osteoporotic fractures

- Reduced quality of life – chronic pain, disability

Evidence

- Poor identification at all stages of patient journey
- Ineffective clinical management when identified
- Fracture liaison services are cost-effective

Cumulative Incidence of Re-fracture

All patients

Log rank p< 0.0001

Cumulative Incidence of Re-fracture

> 70 years

Log rank p=0.029

< 70 years

Log rank p<0.001

Controls
~ 35%

MTF
~ 5%

Controls
~ 9%

MTF
~ 4%

Cumulative Incidence of Re-fracture

Kaplan-Meier survival curves according to osteoporosis medication for women with osteoporotic fractures aged 60–74 yr and those aged over 75 yr

The P value refers to differences between treatment groups.

Results from the evaluation of the implemented Model of Care*

<table>
<thead>
<tr>
<th></th>
<th>New fractures</th>
<th>Re-fracture rate</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention group</td>
<td>11 patients</td>
<td>5.1%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>new fractures (14 #)</td>
<td></td>
<td></td>
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<tr>
<td>Usual care</td>
<td>36 patients</td>
<td>16.4%</td>
<td>69%↓</td>
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<tr>
<td></td>
<td>new fractures (41#)</td>
<td></td>
<td>RR 0.31</td>
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</tbody>
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Intervention group: 214 pts
Usual care: 220 pts

* Slide courtesy of Royal Newcastle Centre
 Lets talk bed days*

- Clinic group - 43 days
- Non-clinic group - 313 days
- Saved 270 bed days by treating 214 patients
- Treat all 1100 - potentially save 1388 bed days
- Equals a 30 bed ward for 46 days or nearly 4 beds for a whole year
- That is potentially 200 total knee replacements
- Consider 356 TKR’s were done at RNC in 2009

* Slide courtesy of Royal Newcastle Centre
NSW Model of Care

Care coordinators

- ‘must have’ – high level of evidence
- ‘find’ the patients and accept referrals
- provide health education and self-management support, support medication adherence

- link to service needs:
  - investigations
  - medical appointments
  - complimentary services

- ‘clinical support’ officers:
  - data management
  - patient booking
  - communication to health providers and others
Model of Care

- Fracture Prevention Care Coordination
  - Patient identified at entry to health system and other intervention points
  - Serum Vit D levels, TFT, parathyroid, Bone Density Scan
  - Supported access to investigations and medical treatment
  - Early GP consult +/- specialist consult
  - Follow-up medical checks - is treatment regimen still appropriate?
  - Quality improvement and data collection analysis and reporting to inform service needs
  - Access to community services
    - Chronic care intervention
      - Disease management education, behaviour change, self-management support, intermittent check assessments
      - e.g. Falls Prevention, Heartmoves, allied health, Compaks, Aged Care services, Osteoporosis NSW, others as appropriate

ACI NSW Agency for Clinical Innovation
Implementation

Step-wise approach over two years:

▲ development position descriptions, policies and procedures and data system
▲ seek submissions from LHDs
▲ initially support 4 LHDs implementation year 1
▲ rural and urban
▲ review progress 6-9 months into implementation
▲ data, survey, stakeholder, consumer satisfaction
Implementation

Year 2 – 2012:

- progress to implementation in all LHDs
  - Imperative to have a system approach to implementation
- support across all sites
- ensure quarterly data analysis is distributed to Department of Health, LHD executives, sites, and ACI website and newsletter
- continuous model of care development
Current work …

In collaboration with ACI/CEC Policy & Technical Support Unit (PTSU):

- Formative evaluation
  - Review of 2 existing sites
  - Set up of a new site in a rural setting
- Economic evaluation
  - = a Treasury bid

Support of a few sites that are implementing the model

Working Group providing road shows in 2011
Edith Siris …

“Let me say it loudly …

A FRACTURE IS A SENTINAL EVENT, and coordination between those who repair fractures and those who manage the patient to prevent the next fracture is a critical need …

if you fail to do the right thing for your patient you are a BAD DOCTOR”
Robyn Speerin
Manager, ACI Musculoskeletal Network
Email: robyn.speerin@aci.health.nsw.au