GRI FRACTURE CLINIC EXPERIENCE

Electronic Consultant Triage
and
Patient Focused Care

Lech Rymaszewski
(Glasgow Royal Infirmary)
MODERNISATION
- FRACTURE CLINIC

AIM – efficiency

TIME – essential, esp. complex clinical problems
- optimal use of skills / expertise surgeon
TRADITIONAL FRACTURE (#) CLINIC

All non-operated # patients

• routinely seen within a few days after A/E visit

• many discharged 1st visit - no change Rx
CONSEQUENCES

- Clinics too busy
- Little time with patients
- Little time for teaching
- No data for audit or research

- Attendance often
  - Wrong time
  - Wrong clinic
  - Unnecessary
# clinic leaflets
- FAQ

eg Frenchay Hospital (Bristol)

• I was seen in A/E yesterday
  - *why* do I need to come back to clinic?

• Will my appointment be on time?
BOA PATIENT CHARTER - 2007

A/E > Fracture Clinic (non-admitted injuries)
- referral within 48 hours to an ortho clinic

- To be given information
- To be advised if surgery required
GRI - 2010

> 6,200

NEW # CLINIC PTS

A / E

> 1,700

ORIF
REQUIREMENTS
- MODERNISATION # CLINIC

INVESTMENT

PERMISSION

PROTOCOLS = CONSENSUS
- all local A/E and Ortho Consultants
AIM
- REDUCE UNWARRANTED VARIATION

- Rx depends - who sees the pt in the clinic
- Weak evidence - much of what we say / do
- Simplest, safest, most effective / cost-effective Rx
HOW TO READ THE LITERATURE TO CHANGE YOUR PRACTICE

- An Evidence-Based Medicine Approach

SHEPARD R. HURWITZ, MD, PAUL TORNETTA III, MD, AND JAMES G. WRIGHT, MD

JBJS (Am) 2006
“Orthopaedic Surgeons want to do what is best for their patients”

- Culture of divergence in opinion
- Not everyone can be right
- Unwarranted variation impacts negatively on overall clinical care (*potential overtreatment*)
- Costs of poor clinical decisions, both diagnostic and treatment, borne by the patient and society
WHAT DO WE WANT?
EVIDENCE-BASED CHANGE
WHEN DO WE WANT IT?
AFTER PEER REVIEW
PATIENT INFORMATION LEAFLETS

CONSENSUS – all A/E and Ortho Cons

(4 hr target – Negotiating tool)

- Torus #’s
- Radial head/neck #’s (fat pad signs)
- Neck of 5th metacarpal #’s
- Mallet fingers
- 5th metatarsal #’s
- Child’s clavicle #’s

Seen A/E - standardised info provided
- no routine ortho follow-up
Your child has suffered a 'Torus' or 'Buckle' fracture (Break) of their wrist. This is the most common type of fracture in young children. Young bone is still soft and very flexible. For this reason, instead of breaking all the way through, the bone has a small crack or kink on one side only. This type of injury heals very well in a simple and easy to apply splint rather than a cumbersome plaster. Most of these injuries heal perfectly well if the splint is worn for 3 weeks.

It is important to give your child appropriate doses of paracetamol or ibuprofen to help with the pain as it will still be sore for a short period even after the application of the splint. The splint can be removed for bathing/showering without risk to the fracture. If after 3 weeks the wrist is a little sore and stiff after being used, the splint can be reapplied for comfort. Do this for short periods only as it is best to try to start gently using the arm as normally as possible from now on. Use a simple painkiller such as paracetamol or ibuprofen if required. However - if after 3 weeks the wrist still seems very sore, swollen, or the child is not willing to use it contact the Fracture clinic to arrange follow-up.

If the child removes the splint before the 3 weeks and appears to be comfortable and can use the arm freely then there is no reason to force them to wear the splint for the full 3 weeks.

It is best to avoid sports and rough and tumble play when wearing the splint and for the week or two after its removal.

Should you have any worries or concerns following discharge from hospital, please contact either the

1) Fracture Clinic: 0141 211 5034 (8.30am until 4.30pm, Monday to Friday)
   or
2) Emergency Department: 0141 211 4344 (outwith these times)

min 2 more visits after A/E
Discharge Advice 5th Metatarsal Fracture

- You have fractured a bone on the outer part of your foot.
- The fracture has occurred in a part of the bone which normally heals well without problems.
- The pain, tenderness and swelling you are experiencing in the foot should gradually settle over a period of several weeks.
- During this time, you may find walking on the foot painful – it may help to walk on the heel initially.
- You will be provided with a support for the foot in the form of bandaging or a removable boot. If required, you will also be provided with crutches.
- You may walk on the foot as much as pain allows, and if you have been given a boot should gradually discard it over 3-5 weeks as the pain settles.

- Most injuries heal without any problems - however it may take several months for your symptoms to settle completely.
- Occasionally the fracture may fail to heal and continue to be painful, even after several months. A surgical procedure may be needed at this stage to help heal the fracture.
- If you are still experiencing significant symptoms after several months, please phone the fracture clinic helpline as listed below for further advice.

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NATURAL HISTORY

- INJURIES IN MAMMALS
The basic message is simple - don't take back pain lying down!

Keep going

- Try to remain at work or get back as soon as possible
TRIAGE CLINIC - prior to pts being seen

- Consultant review - all new pts notes / Xrays
- Diagnosis / plan / “to be seen by” recorded
- Overview – audit
- Improves teaching / training
FRACTURE CLINIC REDESIGN
- Improving standards in patient care and interprofessional education

O Murray, K Christen, A Marsh & J Bayer
Stirling Royal Infirmary, Scotland

“... demonstrated increased service efficiency and significant improvements in staff support, morale and education.”

Swiss Medical Weekly (IF 1.83)
OCT 2011
- Leicester model added to GRI redesign

- No routine ortho appointments from A/E

- All referred patients screened at a “virtual” clinic

- Only attend # clinic for “something to be done”

  ie  - assessment (+/- after investigation)
  - action eg POP off / splint
VIRTUAL CLINIC

- Consultant review - Mon / Wed / Fri
  - A/E notes + PACS (pre-loaded)
    c 2-3 mins / pt

- Diagnosis / plan recorded

- Snr Nurse - Every pt phoned same day
  - Virtual discharge or OP appt
  - Letter / copy to GP
  - Agreed plan > database
Oct 2011 – March 2012  GRI # CLINIC

Patients Attending Fracture Clinic Appointments

Traditional Fracture Clinic

<table>
<thead>
<tr>
<th>Consultant Led Fracture Clinic</th>
<th>Consultant Led Sub-specialty Fracture Clinic</th>
<th>Nurse Led Fracture Clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=3600</td>
<td>n=1090</td>
<td>n=355</td>
</tr>
</tbody>
</table>

Percentage of Patients

0  20  40  60  80  100
GRI - FRACTURE CLINIC
Oct 2011 – March 2012

A/E

c 150 #’s /week (100%)

PROTOCOLS LEAFLETS

62%

Virtual Clinic
Consultant review
Nurses phone pts

PHONE LETTER

38%
no follow-up

21.5%
no follow-up

Sub-specialty # (30%)
& nurse-led clinics (10.5%)
SAFE? - (Pts *need* to be seen)

- Standardised, evidence-based protocols

  *Example of safe organisation?*

  *Aircraft industry*
  - *Zero tolerance for individual variation*

- Accountability
  - real-time database allows audit /tracking
QUALITY CONTROL
x 4 INDEPENDENT ASSESSMENTS

A/E x 2
- “Red dot”
- A/E staff

Radiologist report

Ortho Consultant report
Virtual Clinic
Pts *want* to be seen?
Satisfaction surveys (n=303)

- Discharge from A/E - 90 % positive (135 pts)
- Discharge from V Clinic - 94 % positive (168 pts)

<table>
<thead>
<tr>
<th>Q1.</th>
<th>Were you happy with the information /treatment plan you were given?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3.</td>
<td>Did you use the helpline contact numbers on the leaflet?</td>
</tr>
<tr>
<td>Q4.</td>
<td>Did you visit your GP with this problem? only for sick line?</td>
</tr>
<tr>
<td>Q4a.</td>
<td>How many times?</td>
</tr>
<tr>
<td>Q5.</td>
<td>Did you access any other services for help/advice?</td>
</tr>
<tr>
<td>Q5b.</td>
<td>How many times?</td>
</tr>
<tr>
<td>Q6.</td>
<td>Do you have pain in your leg/knee/ankle/foot?</td>
</tr>
<tr>
<td>Q6a.</td>
<td>Severity? (0-10)</td>
</tr>
<tr>
<td>Q7.</td>
<td>When do you experience pain? a. Rest?</td>
</tr>
<tr>
<td>Q7b.</td>
<td>Night?</td>
</tr>
<tr>
<td>Q7c.</td>
<td>Standing?</td>
</tr>
<tr>
<td>Q7d.</td>
<td>Walking?</td>
</tr>
<tr>
<td>Q7e.</td>
<td>Prolonged walking/running?</td>
</tr>
<tr>
<td>Q8.</td>
<td>Do you experience any significant stiffness in your foot? - Mild/mod/severe</td>
</tr>
<tr>
<td>Q9.</td>
<td>Anything u can’t do?</td>
</tr>
<tr>
<td>Q10.</td>
<td>How quickly did you return to normal walking? a. Immediately?</td>
</tr>
<tr>
<td>Q10b.</td>
<td>1-2 weeks?</td>
</tr>
<tr>
<td>Q10c.</td>
<td>2-4 weeks?</td>
</tr>
<tr>
<td>Q10d.</td>
<td>4-6 weeks?</td>
</tr>
<tr>
<td>Q10e.</td>
<td>&gt;6 weeks?</td>
</tr>
<tr>
<td>Q11.</td>
<td>Have you got back to work/housework - when?</td>
</tr>
<tr>
<td>Q14.</td>
<td>How quickly did you return to wearing your own normal shoes? a.0-2 weeks?</td>
</tr>
<tr>
<td>Q14b.</td>
<td>2-4 weeks?</td>
</tr>
<tr>
<td>Q14c.</td>
<td>4-6 weeks?</td>
</tr>
<tr>
<td>Q14d.</td>
<td>&gt;6 weeks?</td>
</tr>
<tr>
<td>Q15.</td>
<td>Have you been satisfied with your progress to date after this injury?</td>
</tr>
</tbody>
</table>

Comments
Transport -
Ambulance/taxis
Admin/clerical
Porters/Domestics
Management
Finance/IT
Estates

Docs/Nurses/Physios/Radiographers
MODERN TOOLS

- Electronic information systems (PACS, PAS...)
- Telephone, esp mobiles
REAL-TIME DATABASE
- clinically sourced / clinically credible

PRINCIPLES

• Nobody requires more information than clinician

• IT

  - input info only once
A/E DATA - # site (Fracture Clinic) – essential for managing processes / audit
SUMMARY
- SHARED AIMS / METHODOLOGY

• **P** - Patient care - *coordinated, seamless, scientifically-based*

• **A** - A/E consensus with Ortho

• **L** - Leaflets – protocols (velcro splints)

• **S** - Strategy - Triage clinic + IT > Virtual cl > Phone
Here is Edward Bear, coming downstairs now, bump, bump, bump on the back of his head, behind Christopher Robin.

It is, as far as he knows, the only way of coming downstairs,

but sometimes he feels that there really is another way, if only he could stop that bumping for a moment and think of it.