Does it matter whom you see? – a fracture clinic audit

TDA COSKER, A GHANDOUR, T NARESH, K VISVAKUMAR, SR JOHNSON

Department of Trauma and Orthopaedics, West Wales General Hospital, Carmarthen, UK

ABSTRACT

INTRODUCTION A consultant-led service for trauma in the UK has become the accepted norm. Practice in fracture clinics may vary widely between consultants and has an impact on the number of patients seen and, therefore, the time devoted to each patient.

PATIENTS AND METHODS A total of 945 patients attending our unit's fracture clinics were analysed over a 6-week period, representing one complete cycle of our trauma system.

RESULTS The overall discharge rate was 38% but this differed significantly between consultants. Patients re-presenting for the same complaint were evenly distributed between those discharging aggressively and those re-reviewing regularly.

CONCLUSIONS Re-reviewing patients has a significant impact on the number of patients seen in future clinics and, therefore, the time that can be devoted to each patient, individual consultant workload and teaching of junior staff. Since the re-presentation rate between those discharging aggressively and those re-reviewing more frequently was the same, discharge protocols are recommended for common trauma conditions to standardise the process. Specialist clinics are recommended for more complex trauma cases.

KEYWORDS

Fracture clinic – Trauma week – Consultant-led service

CORRESPONDENCE TO

Mr T Cosker, 26 Clear Water Place, Oxford OX2 7NL, UK
M: +44 (0) 7974 261939; E: tomcosker@hotmail.com

The management of trauma in the UK has changed significantly over the past decade. A consultant-led service is now accepted as the norm rather than the exception. Daily consultant-led trauma lists and consultant-led fracture clinics have significantly improved patient care, have reduced the average trauma in-patient stay and have generated significant cost savings.^{1–5}

Although consultant supervision in out-patient clinics has an impact on the discharge rate of junior doctors, this does not change the individual consultant discharge rate in comparison with others.⁵

Several hospitals in the UK operate a weekly on-call system with dedicated daily trauma lists and fracture clinics led by a designated consultant who is on call for that week. Our unit is an example of this. We run a rolling 6-week cycle which operates from 17.00 Monday each week. This system has been in operation for a period of 3 years.

We conducted a prospective study examining the source of referral, rate of discharge, follow-up of patients and the impact of different grades of surgeon in our fracture clinics.

Patients and Methods

A total of 945 patients seen in fracture clinics in our unit between 4 May 2004 and 11 June 2004 were included in the study. One consultant and one registrar or associate specialist was present in each clinic. This represented a modified 6-week cycle (since one of our consultants prefers to continue a standard once weekly on-call) in which our usual consultants rotated through one complete trauma cycle. Full patient consent to be included in the study was obtained and the proforma shown in Appendix A completed by the examining doctor at the end of each consultation. The results were collected and analysed using Microsoft Excel™.

Results

A total of 945 patients were reviewed during the study period; 25 forms were rejected by the authors because either data were missing or judged inadequate. Of patients, 367 (38%) were seen by a consultant, 262 (27%) were

Table 1 Grade of surgeon seeing patient

Consultant	367
Associate specialist	262
Registrar	293

reviewed by associate specialists and 293 (31%) by specialist registrars (Table 1).

Of the study group, 290 (30%) patients were new referrals from the accident and emergency department and 515 (54%) of consultations represented follow-up consultations.

Of patients, 3.5% were discharged at the first visit. There was a non-significant difference in the number of patients seen by each consultant. The new patient to follow-up patient ratio was also non-significant between consultants.

The individual discharge rate varied between 12.5% and 46% (Fig. 1). Overall, 11% of patients were admitted for surgical treatment, whilst 591 (62%) were treated conservatively. The total discharge rate was 38%.

Only 6% of patients were discharged from their first consultation having been referred from the accident and emergency department.

All discharged patients' notes were examined 9 months after the study period to determine whether any had required further review for the original presenting complaint. Thirty (11%) patients were found to have been re-reviewed in the fracture clinic following discharge and four sets of notes were unobtainable. Twelve of the 30 patients

attended for a new complaint and the remainder (14 cases) re-presented for the same complaint but were evenly distributed between the original treating doctor. In all such cases, these patients had not been 'lost' to follow-up since they were referred back to the clinic by allied specialties such as physiotherapy.

Having reviewed these cases in some detail, it quickly became apparent that whilst the patient had been discharged early, a 'fail-safe' system had been put in place by the treating doctor in 12 of the 14 cases, by ensuring that patients had known what symptoms should trigger them to re-present (*e.g.* increasing pain, infected pin sites/surgical scar or a failure to develop an increasing range of motion at the affected joint). In three of these cases, the injury was an acute knee injury which had been thought to be a soft-tissue injury not requiring further evaluation; however, on intensive work with the physiotherapy department, the patients had failed to progress and an arthroscopy was required.

Discussion

The on-call trauma week system, led by a designated consultant, provides good continuity of care for patients and training opportunities for junior staff. However, there is a wide range in individual practice with regard to discharge. This has a follow-through impact on the size of future clinics and, therefore, the time that can be devoted to each case.

Since there was no significant difference in the number of patients re-presenting for the same problem between clinicians

Figure 1 Variation in discharge rate between different doctors. Numbers 1, 3, 6, 7 and 10 are consultants and the remainder are middle-grade surgeons. There was no correlation between discharge rate and grade of surgeon.

with different approaches to discharge, we have been able to re-assure those doctors discharging more aggressively that they are not doing so inappropriately and encourage those adopting a more cautious attitude to be more proactive in terms of discharge.

In an age of more inexperienced doctors seeing patients with common trauma, it might be possible to develop discharge protocols for common trauma cases which may prompt a more standardised approach to discharge. It may also be appropriate for specialist cases to be seen in designated clinics, such as a specialist hand clinic.

A more decisive approach to discharge has benefits for patients waiting for appointment slots, those staffing the clinics and for junior doctors requiring training time and

does not appear to have any significant impact in terms of quality of care.

References

1. Jennings AG, Saeed K, Dolan S, Wise DI. Impact of the introduction of a daily trauma list on out-of-hours operating. *Ann R Coll Surg Engl* 1999; **81**: 65–8.
2. Partington PF, Ions GK. A five consultant orthopaedic rota, to allow a consultant led trauma service. *Ann R Coll Surg Engl* 1996; **78 (Suppl)**: 21–2.
3. Lo S, Fergie N, Walker C, Narula AA. What is the impact of consultant supervision on outpatient follow up rate? *Clin Otolaryngol* 2004; **29**: 119–23.
4. Lloyd J, Dillon D, Hariharan K. Outpatient clinics. Down the line. *Health Serv J* 2003; **113**: 22–3.
5. Gammage M, Taylor M. Hospitals. Trauma without crisis. *Health Serv J* 1998; **108**: 24–5.