Improving Referrals to Fracture Clinic from the Paediatric Emergency Department
An Intervention

Abstract:

Sir,

An audit of fracture clinic referrals from the Paediatric Emergency Department demonstrated a large proportion of patients referred had not suffered a fracture or significant injury. A strategy for managing distal forearm (radius and/or ulna) buckle fractures was developed with the goals of reducing overall fracture clinic referrals and reducing the number of non-significant injuries referred to fracture clinic. Distal forearm buckle fractures were targeted as they are a common presentation, need minimal intervention and there is strong evidence the majority of patients require no follow-up.

The intervention was implemented for a 1 month period and compared with data from a preceding 1 month period. All forearm buckle fractures were placed in below-elbow backslab or soft cast, with advice for parental removal after either 3 weeks (< 10 years) or 4 weeks (> 10 years). All injury presentations were reviewed within 5 days to identify missed significant injuries or over-management of non-fractures. Statistical significance was determined using Fishers exact test. Forearm injury referrals to fracture clinic during the intervention were significantly decreased (-23%, p <0.01), but the proportion of patients referred with no fracture increased (27%, p <0.01). The proportion of patients admitted for inpatient management was similar (14% vs 16%).

The challenge facing the Irish health service in the current economic climate is to improve resource efficiency in the medical work place. Reducing redundant medical review without impacting patient care or outcome will help achieve this. A 2009 Cochrane review concluded that referral behaviour despite considerable evidence the process of referral is generally sub-optimal. Jenkins et al reduced errors in upper limb injury management by providing clear emergency management guidelines but did not attempt to streamline service or reduce referrals. Referral of non-fractures is postulated to be due to a lack of confidence or experience of ED staff in diagnosis and management.

It was hoped this intervention would improve confidence, with a secondary reduction in the non-significant injuries referred. However the reverse applied. Why this occurred needs further study but if linked to clinical confidence and experience then further targeted teaching would improve this. A strategy clearly outlining the expected management for 'non-fractures' may also improve this.

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References