

#1062 - Clinical Study

Virtual Children's Fracture Clinic – A Prospective Study Of 5536 Patients Confirming That Efficiency & Cost Saving Does Not Compromise Safety

Trauma / Paediatric Trauma / Conservative Treatment & Rehabilitation

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Background

Paediatric Orthopaedic virtual fracture clinic was started in August 2017, receiving thousands of referrals so far, It is conducted by Paediatric Orthopaedic consultants and a nurse specialist. Referrals are from the emergency department and local minor injuries unit using a digital form with pathways existing for certain injuries. Following review of imaging and documentation patients can be admitted, reviewed urgently, sent to the plaster room, referred for therapy, seen in clinic or discharged. Patients receive a phone call regarding the outcome and letter detailing diagnosis and plan.

Objectives

The purpose of this study was to determine the safety of Virtual Children's Fracture Clinics (VCFC) specifically with reference to time to review, missed/incorrect diagnoses and return rate after discharge.

Study Design & Methods

This was a prospective consecutive case series study performed at a University Teaching Hospital. The VCFC database was used to identify all patients seen between August 2017-May 2021. Records were reviewed and data recorded about the Emergency Department (ED) diagnosis, the Orthopaedic diagnosis and final outcome, including unplanned return to clinic.

Results

5536 consecutive patients were seen in the VCFC over the study period (cost saving £465,496). Mean time from ED visit to VCFC appointment was 2.25 days. Median follow-up at the time of this study was 31 months, (range: 19-63 months). The diagnosis made in VCFC differed from ED diagnosis in 1921 cases (34%), (downgraded in 1460, upgraded to more severe fracture type in 220). 2325 patients (42%) were discharged from VCFC without further face to face (F2F) follow-up. 63 patients (3%) returned for unplanned F2F clinic. None were found to have missed injuries or required further interventions. 38 patients (1%) required admission for urgent surgical intervention. Of the 3152 requiring further F2F follow-up, 220 patients (7%) required urgent F2F review within 72 hours – the most frequent indication being for change of immobilisation.

Conclusions

This is the largest reported series of patients from a VCFC, with the longest follow-up, providing a solid basis for making conclusions about safety and missed/incorrect diagnoses. Our data demonstrates that the system allows prompt identification of the small numbers of patients requiring urgent attention, and allows safe modification of the ED diagnosis without further F2F review. A 3% return rate after discharge from a VCFC, with no missed injuries at a minimum follow-up of 19 months confirms the safety of VCFCs.

