

AB102. SOH21AS051. Virtual fracture clinics in orthopaedic surgery: a systematic review of current evidence

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Background: Approximately 75% of fractures are simple, stable injuries which are often unnecessarily immobilized with subsequent repeated radiographs at numerous fracture clinic visits. In 2014, the Glasgow Fracture Pathway offered an alternative virtual fracture clinic (VFC) pathway with the potential to reduce traditional fracture clinic visits, waiting times and overall costs. Many units have implemented this style of pathway in the non-operative management of simple, undisplaced fractures. This study aims to systematically review the clinical outcomes, patient reported outcomes and cost analyses for VFCs.

Methods: Two independent reviewers performed the literature search based on PRISMA guidelines, utilizing the MEDLINE, EMBASE and COCHRANE Library databases. Studies reporting outcomes following the use of VFC were included. Outcomes analyzed were: (I) clinical outcomes, (II) patient reported outcomes, and (III) cost analysis.

Results: Overall, 15 studies involving 11,921 patients with a mean age of 41.1 years and mean follow-up of 12.6 months were included. In total, 65.7% of patients were directly virtually discharged with protocol derived conservative management, with 9.1% using the Helpline and 15.6% contacting their general practitioner for advice or reassurance. A total of 1.2% of patients experienced fracture non-unions and 0.4% required surgical intervention. The overall patient satisfaction rate was 81.0%, with only 1.3% experiencing residual pain at the fracture site. Additionally, the mean cost per patient for VFC was £71, with a mean

saving of £53 when compared to traditional clinic models. Subgroup analysis found that for undisplaced fifth metatarsal or radial head/neck fractures, the rates of discharge from VFC to physiotherapy or general practitioners were 81.2% and 93.7% respectively.

Conclusions: This study established that there is excellent evidence to support VFC for non-operative management of fifth metatarsal fractures, with moderate evidence for radial head and neck fractures. However, the routine use of VFCs is presently not validated for all stable, undisplaced fracture patterns.

Keywords: Coronavirus disease 2019 (COVID-19); trauma assessment clinic; trauma; virtual fracture clinic (VFC)

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Footnote

Conflicts of Interest: This study has recently been peer reviewed and published in Injury (2nd November 2020) under the DOI: <https://doi.org/10.1016/j.injury.2020.11.00>. The authors have no other conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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