
ED Reference Guideline for Common Adult Orthopaedic Limb Injuries

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Service Improvement

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Deliver

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Summary

The Emergency Department (ED) Reference Guideline for Common Adult Orthopaedic Limb Injuries is a pathway that helps with the treatment of most common peripheral musculoskeletal injuries in the

ED. The guideline contributes to optimising routine care for common orthopaedic limb injuries in ED. Orthopaedic clinical prioritisation criteria still apply. These new guidelines are not definitive, but provide a reference guideline for usual management of common soft tissue injuries and limb fractures that present to primary care.

Key dates

Apr 2024

Implementation sites

Across SCHHS EDs (Sunshine Coast University Hospital, Nambour General Hospital, Gympie Hospital)

Key Contacts

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Aim

The aim is to improve efficiency and quality of care for common orthopaedic limb injuries presenting

to ED, and to minimise variation in practice. This will be done by implementing a reference guideline.

Benefits

Clinical:

- Improve quality of care for common orthopaedic limb presentations, with reduced variation in practice

Operational and workflow:

- Improved efficiency of decision making to support timely early management and care planning
- Improved early access to appropriate care and supports patient flow through ED front of house/fast track
- Reduced reliance and workload placed on busy orthopaedic team for opinion of common presentations

Aligns with national standards:

- Clinical Governance,
- Comprehensive Care
- Communicating for Safety

Background

Orthopaedic limb injuries make up a significant proportion of presentations to the Emergency Department. The complexity of orthopaedic care includes the spectrum from weight-bearing and mobility through to full immobilisation. Many tertiary centres have reference guidelines for the management of common orthopaedic limb injuries in ED, especially those that can be managed as an outpatient. ED reference guidelines help to standardise early management of common injuries to assist efficiency and quality of care, and timely discussion with the orthopaedic team for relevant cases. Such guidelines had not yet been developed in emergency care in SCHHS. This contributes to variation in practice. Furthermore, a lack of reference guidelines increases consultation requests with orthopaedics teams regarding management of common presentations. This contributes to increased wait times and management times in ED and negatively impacts access and flow. Having access to a facility guideline helps to ensure efficient and high-quality Emergency Department assessment and management of acute orthopaedic limb injuries – focusing on those presentations that can be managed as outpatients. It is aimed to minimise variation in practice and facilitate ED access and flow.

Solutions Implemented

The ED Adult Orthopaedic Limb Injury Reference Guideline was developed and refined through consultation with key stakeholders from December 2022 to September 2023 and published on the [Queensland Health Intranet site](#) (For Queensland Health staff only) . The Guideline includes locally developed content: reference procedural videos for application of braces/boots/slings/backslabs/splints, relevant patient handouts and routine follow up recommendations. Locally developed orthopaedic management pathways are integrated with this guideline. A degree of error was accounted for by standardising management to be more conservative and reduce over-aggressive treatment, with the ability for clinicians to adapt management where expertise or situations allowed e.g. weight bearing status and management for a stable Weber B fracture (Weber Ankle Fracture Classification). Guidelines were circulated for clinical use in October 2023, as well as uploaded to local DEM tools resource. Pre-implementation staff survey collected data via Office 365 form and a post implementation survey is scheduled to be completed after one year. Guidelines were subsequently presented through QEDSAP Clinical Improvement and Innovation working group and circulated through Queensland Directors of Orthopaedics Group. Whilst they could not endorse at a system level due to differing service capabilities across sites, they encouraged local EDs to engage with orthopaedic directors to implement in each service.

Evaluation and Results

Outcomes will be assessed by:

- Long term follow-up of clinical data ED front of house (FOH) ~ one year, with comparison to historical data in one year prior to implementation
- Pre and post implementation ED staff surveys (RMO, Registrar, SMO, Nurse Practitioner)
- Emergency Department FOH annual review and audit of common presentations, including NEAT targets, recalls/representations (12 month post implementation)
- Review of RiskMan data from orthopaedic follow up clinics (12 mth post implementation ~ Nov 2024)

Future plans will include a record of how many times the guideline is accessed electronically.

Lessons Learnt

Several challenges presented during development and implementation that taught lessons for future approaches:

- Stakeholder feedback takes time and relies upon common goals and directives. Identifying and emphasising reciprocal benefits for work unit management and patient care in ED and in flow up care is important for stakeholder input and buy in
- Access to guidelines and procedures for clinical care is of utmost importance. If a guideline is

not readily accessible for clinical staff with minimal effort, it is unlikely to be utilised. Similarly, resources across multiple platforms are unlikely to be effectively used due to inconsistent access in clinical care by clinicians

- Centralising resources to a single document made our guideline centralised, and by placing upon the two most commonly access platforms in our setting (QHEPS and DEM tools) coupled to regular staff education and circulation in comms, ensured staff were aware of and using this resource. The nature of constantly rotating junior staff in ED is challenging to ensure all aware of guideline, how and when to access. Our strategy was to include our guideline within routine education and training programs, and once embedded senior medical staff would direct staff to its use.
- Guidelines are useful but need not be rigid due to variation in patient presentation and concurrent or comorbid factors. Hence our guideline served as a decision-making tool rather than a rigid procedural document
- Guidelines need constant monitoring and updating as clinical care evolves or unique situations are identified that reveal limitations. Therefore, a centralised document that can be easily updates in lien with clinical needs is important. Many platforms for guideline publications can make this difficult or cumbersome, with delays to re-publication that may impact immediate change in care/practice.
- Unfortunately, we could not record how often our guideline was accessed in its electronic locations. Moving forward we will plan to have this recorded as part of future data collection.
- Future plans will include QR code-based resources for patient specifics to different presentations, and additional clinician resources for assessment procedures.

References

[Orthobullets.com](#) [Wolturs Kluwer UpToDate](#)

Further Reading

Pondicherry, N., Schwartz, H., Stark, N., Dhanoa, J., Emanuels, D., Singh, M., & Peabody, C. R. (2023). Designing clinical guidelines that improve access and satisfaction in the emergency department. *Journal of the American College of Emergency Physicians Open*, 4(2), e12919.?