

#1874 - Teamwork And Innovation For Achilles Tendon Rupture - A Multidisciplinary Quality Improvement Project

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Background

Rupture of the Achilles tendon is common and has a long recovery period. Contemporary literature supports non-operative treatment for most cases. Many Foot and Ankle Surgeons advise an ultrasound scan to check the gap between the torn ends. A large gap (with the ankle in equinus) is a relative indication for surgery. The patient journey involves many steps and varies between hospitals. It may take 2-3 weeks from Emergency Department visit before a final specialist treatment plan. We re-designed our protocol to reduce delays.

Objectives

Reduce delay from presentation to definitive diagnosis and treatment plan for patients presenting with suspected rupture of the Achilles tendon.

Study Design & Methods

We identified a retrospective series of Achilles tendon ruptures managed according to our 2019 protocol. Time taken from A&E to have both an USS and specialist Foot and Ankle Surgery review were calculated.

Fifty-two consecutive patients were treated with our new pathway and prospectively followed. The time taken for a scan and for specialist review were compared to 44 consecutive cases from the 2019 (pre-COVID) cohort.

The new pathway includes:

1. A new contoured splint (Thetis Medical) applied to the front of the injured limb, held with bandage. This can be removed and replaced (unlike a plaster cast) in the ultrasound department, removing the need for plaster room visits.
2. Urgent triage to Foot and Ankle specialist.
3. Ultrasound scan for assessment of rupture gap and DVT check.
4. Early decision regarding surgery. Transfer to weight-bearing in a prosthetic boot in equinus *without waiting for the once-a-week clinic*.
5. Extended oral VTE prophylaxis.

Results

There were no significant differences in patient demographics, rates of surgical vs non-operative treatment or re-rupture. Time taken for both ultrasound scan and specialist review fell > 60%. All New Pathway patients reached their definitive treatment decision within one week (Mean 3.7 days).

	Old Protocol	New Pathway
Mean days A&E to Specialist and scan	8.8	2.9
Maximum days A&E to Specialist and scan	23	6
Mean days A&E to Specialist	8.8	3.7
Maximum days A&E to Specialist and scan	23	7

Conclusions

Teamwork, training and innovation improved the patient journey after Achilles tendon rupture. All patients now reach a definitive plan within a week, rather than waiting for up to 3 weeks.