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Approved by	Therapies Clinical Governance Group
Approval Date	11th August 2023
Review Date	11th August 2026 This is the most current document and should be used until a revised version is in place

Key Amendments

Date	Amendments	Approved by:
25th January 2023	Document extended to 30th June 2023 whilst under review.	Dr J Trevelyan/ Benjamin Thomas
23rd June 2023	Document extended for another 3 months whilst under review.	Benjamin Thomas
11th August 2023	Document reviewed and approved for 3 years	Therapies Governance Group
July 2024	Amendment made to management box phase 1	Rob Edgecox

Management

PHASE	GOALS	MANAGEMENT	PRECAUTIONS	PROGRESSION CRITERIA
1 0-2 Weeks	Protect tendon Control pain	Cast in equinus Operative management - depending on the complexity of the TA repair, the operating consultant will recommend a period of immobilisation casted in equinus (normally between 2-4 weeks). Beyond this the non-operative guideline can be followed from stage 2. During the first 10 weeks post repair, it is important that the therapist/patient are aware of the risk of wound gaping, particularly when completing ROM exercises or progressing available range in the Vacoped. If any wound gaping is present, revert back into plantarflexion and urgently refer back to the consultant. Late stage management (phase 6/7) If the patient is failing to reach objective markers 6 -9months' post rupture I.e. to progress to running, achieve a single leg heel raise, antalgic gait, continues to complain of pain then discuss with your mentor or team lead and consider referring to the foot ankle consultants for a second opinion.	Non-Weight Bearing (NWB)	Active Plantarflexion (PF) / Achilles Tendon (TA) intact
2 2-5 weeks	Protect Tendon Manage swelling	Vacoped boot fitted in trauma clinic set to 30° PF. <u>Advice</u>	Partial weight bearing with Elbow Crutches (E/C) as tolerated from 2/52	Active PF / TA intact

		• Boot in situ at all times apart from for hygiene needs & physiotherapy exercises • No passive stretching of the calf • Swelling management • Patient aware of protocol and precautions • Patient aware of risk of re-rupture • Reassurance • Patient able to progressively increase weight bearing (WB) from 2/52 <u>Exercises</u> • Active range of movement (AROM) Dorsiflexion (DF) & PF within comfortable range and below plantar grade. • AROM inversion/eversion below plantar grade • Knee AROM • Consider kinetic chain (Glutes, Core, Quads, Hamstrings) • Consider sensitisation elements • Cardio / fitness as able (in boot) • Plantarflexion with yellow theraband • Inversion in plantarflexion with yellow theraband <u>Other modalities</u> • Swelling management (massage, compression) • Manual techniques (muscle tightness, scar mobilisation, DTF, mid/forefoot) • Consider electrotherapy	Do not move past plantar grade No passive stretching Boot in situ at all times apart from for hygiene needs & physiotherapy exercises Do not push exercises into discomfort or pain Do not push past comfortable AROM	
3 5-7 weeks	Protect Tendon Manage swelling	Seen in outpatient department (OPD) to adjust Vacoped boot to 15-30°. <u>Advice</u> • As above • Gait re-education with new range of movement (ROM) within boot <u>Exercises</u> • As above • Progress kinetic chain exercises • Allow AROM within limits of boot <u>Other Modalities</u> • As above	Do not move past plantargrade No passive stretching Boot in situ at all times apart from for hygiene needs & physiotherapy Do not push exercises into discomfort or pain Do not push past comfortable AROM Continue to use E/C to facilitate	Active PF / TA intact

			non-antalgic gait.	
4 7-10 weeks	Protect tendon Progress ROM TA & calf strength and length	Adjust Vacoped boot to 0-30° in accordance with comfortable AROM Change to flat sole on Vacoped boot Patient can now progress into active DF and increase WB as tolerated At week nine the Vacoped boot can be fully unlocked (no restriction) to further encourage active DF <u>Advice</u> • Do not over-strain or over-stretch tendon • Caution should be taken due to risk of re-rupture • Most re-ruptures occur between 8-12 weeks following injury <u>Exercises</u> • Strengthen Gastrocnemius & Soleus (progressive increase in resistance / load) - Isometric → Through range - Seated resisted heel raises - Resistance band PF (progress) - Standing supported heel raises in boot • Consider NWB foot control and Inversion / Eversion strength in sitting • Proprioceptive training within AROM limits (Partial → Full WB) • Progress WB kinetic chain exercises in boot - E.g. mini squat / step within ROM limits of boot • Continue cardio / fitness (Do not force into DF) <u>Other modalities</u> • As above	No mobilising without boot No passive stretches into DF Boot in situ at all times apart from for hygiene needs & physiotherapy exercises No standing / Full WB heel raises Continue to use E/C to facilitate non-antalgic gait.	Active plantargrade achieved
5 >10 weeks	Protect tendon Progress ROM TA & calf strength and length Wean out of boot Normalise gait	Wean off boot and progress into supportive shoe with heel raise as ROM permits • Use of E/C's to reduce WB during transition if required Gait re-education with emphasis on non-antalgic gait pattern Continue to wear boot for vulnerable or at risk situations <u>Advice</u> • Do not over-strain or over-stretch tendon • Caution should be taken during the weaning process due to risk of re-rupture <u>Exercises</u> • Strengthen Gastrocnemius & Soleus (progressive increase in resistance / load) - E.g. Supported bilateral heel raises → gradual increase in WB	No mobilising without boot or E/C unless instructed by the physiotherapist Do not excessively force into DF	Single leg (SL) stand with good ankle strategy >10 seconds Normal gait pattern Squat to 30° knee flexion without weight shift

		• Gentle knee-to-wall stretch
		  - Knee must not go past front of foot
		• Proprioceptive training within AROM limits
		• Progress WB kinetic chain exercises (Do not force into excessive DF)
		  - Squat, Reverse lunges, Step ups, hamstring bridges
		• Continue cardio / fitness (Do not force into excessive DF)		

6	Progress ROM
	Increase TA load capacity and power
		Continue to progress gait unaided
		
		<u>Advice</u>
		• Avoid forceful impact
		• Avoid painful activities or activities that create movement compensations
		• Wean heel raises as appropriate
		
		<u>Exercises</u>
		• Strengthen Gastrocnemius & Soleus
		  - Progress from bilateral to unilateral load
		  - Progress from plantargrade into dorsiflexion (i.e. off step)
		• Functional movements to progress into dorsiflexion
		  - e.g. squats, forwards lunges, Y-Excursion
		• Multi-plane proprioceptive exercises
		• Progress kinetic chain muscle strength
		• Continue Cardio / fitness
		  - Caution with rowing machine due to passive DF
			Avoid forceful impact
			
			No running / jogging
			
			No driving if right sided TA rupture until PT happy that suitable control & strength to be able to safely emergency stop.
			
			No single leg eccentric lowering past plantargrade until 5/12 for full TA ruptures
			
			Avoid activities of extreme DF combined with active PF
				Normal gait pattern (unaided) on all surfaces
				
				Squat & Lunge with no movement compensations (ensure adequate DF)
				
				Consider – isometric SL Heel raise and SL Heel raise on a weighing scale
				
				Aim single leg heel raise

7	Progress neuromuscular control and graded return to full function	Return to full function & sport as required in accordance with patient set goals
		
		<u>Advice</u>
		• Avoid post-activity swelling
		• Avoid activities with prolonged post-activity pain (<24hours)
		• No movement compensations
		
		<u>Exercises</u>
		• Continue to progress TA / Soleus / Gastrocnemius strengthening with increased resistance into end of range DF after 5/12
		• Progressive plyometric training
		  - 2 → 1 foot
		  - Initially low velocity, single-plane movements progressing to high velocity, multi-plane activities
			No running if antalgic gait pattern or unable to control plyometric load
			
			No running on the flat until 5/12
			
			No hill running until >6/12
				Consider return to sport criteria:
				- Calf raises (Left = Right)
				- Single Leg Hop
				- Triple Hop Test
				- Triple Cross Over Hop Test
				- Lateral Hop Test
				- Star Excursion Balance Test
				
				Aim >75% of unaffected leg

		- E.g. Jumps, landing control, footwork drills, hops, perturbations. • Sport specific balance and proprioception • Replicate sports specific cardiovascular requirements		