



Haemorrhage Control using Combat Application Tourniquet (CAT)

1. Purpose

This CWI provides instruction on the use of the Combat Application Tourniquet (CAT) for the purpose of managing an uncontrolled limb haemorrhage

SCOPE OF PRACTICE			
MICA <input checked="" type="checkbox"/>	ALS <input checked="" type="checkbox"/>	BLS <input checked="" type="checkbox"/>	CERT/ACO <input checked="" type="checkbox"/>

Indications

- Uncontrolled haemorrhage from a limb despite direct pressure
- Multiple casualty scenes where patient numbers dictate that simple haemorrhage control measures cannot be individually applied

Contraindications

- Bleeding that can be controlled using basic first aid measures

Clinical precautions

- Do not apply the tourniquet over a wound or a joint
- Once applied the tourniquet must be visible – it cannot be covered by any clothing or other bandages
- This piece of equipment will be deployed in critical situations and requires regular practice to maintain familiarity and skill at quickly applying it whilst under stress
- The primary reason for failure of the CAT is excess slack in the strap when first applied*. Other reasons for sub-optimal results are too few turns of the windlass and failure to correctly work the strap-buckle mechanism.

Equipment required




- Combat Application Tourniquet

Health, Safety and Welfare

- Apply standard precautions.
- Modify as informed by the dynamic risk assessment.
- It is recommended that paramedics wear gloves and safety glasses at a minimum.



2. Instructions

KEY POINTS	EXPLANATORY NOTE	Y/N
<p>Prepare patient</p> <ol style="list-style-type: none"> 1. Limb haemorrhage which cannot be controlled identified. 	<p>An uncontrolled limb haemorrhage is a life-threatening injury and requires urgent management.</p>	
<p>Application of CAT</p> <ol style="list-style-type: none"> 2. Pass the band around the limb approximately 5-7cm proximal to the bleeding site (or as high as possible on the limb) directly against the skin and feed it through the slit of the buckle. Ensure band is not twisted. 3. Grasping the buckle, pull the band tight around the limb and secure with the Velcro on itself but do not yet pass it through the rod clips. The band should be tight enough that three fingertips cannot be slipped inside it. 4. Twist the rod until bleeding has stopped or loss of distal pulse (should not take more than 3 or 4 turns). 5. Secure the rod inside the rod clips to lock it. 6. If bleeding persists consider tightening further or applying a second tourniquet proximally, immediately adjacent to the first. 7. Feed the remaining band through the rod clips and secure the Velcro "TIME" strap. Note the time of application on the strap. 	 <p>The CAT can be passed over the limb already assembled. If this approach is used care must be taken to ensure the band does not twist.</p>  	
<p>Ongoing considerations</p> <ol style="list-style-type: none"> 8. Ongoing assessment for haemorrhage control is required to ensure effectiveness of the tourniquet is maintained 9. In most instances, once applied, the tourniquet should remain in situ until medical clearance. 	<p>.</p>	

<p>10. If the tourniquet was originally placed due to the inability to apply simple haemorrhage control measures (e.g. mass-casualty incident) and the bleeding is now expected to be able to be controlled with basic measures, consider replacing it with a standard pressure dressing. If serious bleeding re-occurs, reapply tourniquet and leave in situ until medical clearance.</p> <p>11. Check the tourniquet after each patient move.</p> <p>12. Conscious patients may require analgesia to tolerate the tourniquet.</p> <p>13. Consult for ongoing care if tourniquet application time will exceed 2 hours prior to arrival at hospital. If the tourniquet has been in situ for a prolonged period of time it should only be removed in-hospital by trained personnel due to potential for crush injury.</p>		
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3. Assessment

Candidate's name and date	Comments

Instructor's name	Satisfactory
	<input type="checkbox"/> Yes <input type="checkbox"/> No

Document name	HAEMORRHAGE CONTROL USING THE COMBAT APPLICATION TOURNIQUET (CAT) CLINICAL WORK INSTRUCTION											
Applies to	MICA <input checked="" type="checkbox"/>	ALS <input checked="" type="checkbox"/>										
	BLS <input checked="" type="checkbox"/>	CERT/ACO <input checked="" type="checkbox"/>										
Document no.	CWI/OPS/171		Stored: CM: CWI/OPS/171									
Version:	2.0		Review:	<input type="checkbox"/> Annual <input checked="" type="checkbox"/> 3-Yearly								
Division	Medical Directorate											
Responsible Executive and approval party	Medical Director											
Responsible Manager	Manager, Clinical Practice Guidelines — 9840 3980											
Related documents	<ul style="list-style-type: none"> N/A 											
Relevant National Safety and Quality Health Service Standards	To be completed by the National Standards Accreditation Lead: <table> <tr> <td><input type="checkbox"/> 1. Clinical governance</td> <td><input type="checkbox"/> 5. Comprehensive care</td> </tr> <tr> <td><input checked="" type="checkbox"/> 2. Partnering with consumers</td> <td><input type="checkbox"/> 6. Communicating for safety</td> </tr> <tr> <td><input checked="" type="checkbox"/> 3. Healthcare-associated infection</td> <td><input type="checkbox"/> 7. Blood management</td> </tr> <tr> <td><input type="checkbox"/> 4. Medication safety</td> <td><input checked="" type="checkbox"/> 8. Recognising and responding to acute deterioration</td> </tr> </table> <ul style="list-style-type: none"> <input type="checkbox"/> NSQHS standards are NOT applicable 				<input type="checkbox"/> 1. Clinical governance	<input type="checkbox"/> 5. Comprehensive care	<input checked="" type="checkbox"/> 2. Partnering with consumers	<input type="checkbox"/> 6. Communicating for safety	<input checked="" type="checkbox"/> 3. Healthcare-associated infection	<input type="checkbox"/> 7. Blood management	<input type="checkbox"/> 4. Medication safety	<input checked="" type="checkbox"/> 8. Recognising and responding to acute deterioration
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Review date	By 4 December 2022 , or as required for accuracy.											

Version control and change history

Version	Date approved	Date superseded	Amendment
1.0	26 August 2016	12.12.2019	
2.0	12.12.2019		<ul style="list-style-type: none"> Reformatting consistent with AV branding. Addition of pictures to aid instruction Addition of ongoing monitoring to ensure maintenance of haemorrhage control Change of Authorisation