

Basic Trauma Management

A Cadus e.V. Course



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I. PURPOSE STATEMENT AND DESIGN

The war launched by the Russian state against the Ukrainian state in February 2022 immediately highlighted the need to practically prepare every member of society for the eventuality of managing situations and injuries similar to those suffered by soldiers on the battlefield. This is due to both

1. the increasing need to mobilise citizens for military or civil defence duties and thus deliver advanced tuition in battlefield first aid response; and
2. the frequent and deliberate targeting of civilian infrastructure across the entirety of Ukraine by Russian armed forces, leading to civilians often being the first on the scene of battlefield-like situations.

Battlefield first aid response has several crucial differences to ordinary first aid response which can make the difference between a successful intervention and an unsuccessful one or even a disastrous one in which rescuers themselves become casualties of enemy fire.

The BTM curriculum acknowledges that the target audience will not be military personnel but will benefit significantly from training based on the training delivered to serving soldiers across the world in managing casualties arising from strikes against civilian targets.

Module No.	Module Title
1	Introduction to BTM
2	First Aid Kit Familiarization
3	Rapid Casualty Assessment
4	Massive Bleeding (including circulation and hypothermia)
5	Airway & Breathing

LEARNING OBJECTIVES

This course is built on a set of 10 Terminal Learning Objectives (Endgoal), which are supported by 70 sets of enabling learning objectives:

MODULE PLAN 1: INTRODUCTION TO BTM	
TLO	ELO (4)
1. Describe the practice of Basic Trauma Management (BTM) in accordance with International Guidelines (CoTCCC and C-TECC guidelines).	1. Identify the leading causes of preventable death due to traumatic injuries, and the corresponding interventions to help increase chances of survival. 2. Define the core principles of BTM and the appropriate application of BTM in combat-like and trauma settings. 3. Identify the Phases of Care, and how intervention priorities differ in each phase, in accordance with International Guidelines. 4. Describe the role and responsibilities of a first responder in rendering care in accordance with the level defined in All Service Member (TCCC) or First Responders with a Duty to Act (TECC).
MODULE PLAN 2: FIRST AID KIT FAMILIARIZATION	
TLO	ELO (2)
2. Describe the use of a first aid kit in accordance with standard practice within international organisations.	5. Identify the contents of an Individual First Aid Kit (IFAK), or other first aid kits as used by first responders. 6. Describe the general maintenance and resupply procedures for trauma materials in a first aid kit.
MODULE PLAN 3: CASUALTY ASSESSMENT	
TLO	ELO (4)
3. Given a trauma casualty in a combat-like or trauma scenario, perform the steps required to assess a casualty in accordance with International Guidelines.	7. Define the actions required before engaging with a casualty, to prevent harm or additional casualties. 8. Describe the techniques used to assess a casualty for responsiveness. 9. Describe the techniques used to move the casualty to prevent further injury or death. 10. Perform a rapid casualty assessment in the proper order using the MARCH sequence.

MODULE PLAN 4: MASSIVE BLEEDING (INCLUDING CIRCULATION AND HYPOTHERMIA)

TLO	ELO (9)
4. Given a combat-like or trauma scenario, demonstrate basic care for a casualty with massive bleeding in accordance with International Guidelines.	11. Identify the importance of early application of limb tourniquets to control life-threatening bleeding in Care Under Fire. 12. Define types of bleeding, to include life-threatening bleeding. 13. Given a trauma casualty with life-threatening bleeding and a tourniquet, apply a tourniquet to the casualty or to oneself to stop the bleeding within 1 minute and secured within 3 minutes. 14. Given a trauma casualty with severe bleeding, and no tourniquet available, identify the risks associated with the use of an improvised tourniquet. 15. Identify the principles of wound packing and applying pressure bandages 16. Given a trauma casualty with a wound in a place where a tourniquet cannot be effectively applied, apply a dressing directly on the site of active bleeding and demonstrate wound packing techniques followed by direct pressure for 3 minutes (hemostatic, or in the absence of a hemostatic dressing 10 minutes). 17. Demonstrate the application of a pressure bandage, including to secure wound packing of junctional haemorrhage. 18. Identify the signs, symptoms and management of shock in a trauma casualty with life-threatening bleeding. 19. Identify methods to prevent hypothermia in a trauma casualty.

MODULE PLAN 5: AIRWAY & BREATHING

TLO	ELO (7)
5. Given a combat-like or trauma scenario, demonstrate basic care for a casualty with a compromised airway or respiratory distress in accordance with International Guidelines.	20. Identify signs/symptoms of an airway obstruction. 21. Given a trauma casualty with an airway obstruction, place the casualty in a recovery position. 22. Given a trauma casualty who is unresponsive or has an airway obstruction, perform a head-tilt/chin-lift to open the airway. 23. Identify the signs and symptoms of respiratory distress. 24. Identify the signs and symptoms of a life-threatening chest injury. 25. Identify the signs and symptoms of open pneumothorax (sucking chest wound) in Tactical Field Care. 26. Identify the importance and implications of vented and nonvented chest seals.

MODULE PLAN 6: NON-TECHNICAL SKILLS

TLO	ELO (7)
6. Given a combat-like or trauma scenario, demonstrate the non-technical skills in the domains of: <ul style="list-style-type: none"> • communication • leadership • team-working • decision-making • situation-awareness. 	27. An appropriate assessment of the CUF (red) and TFC (amber) zones and associated management of the scene. 28. Demonstration of situational awareness of safety and patient condition, including an evaluation of safety before entering the CUF zone. 29. Identified options for casualty movement, if necessary, and effect an optimally safe evacuation of the casualty 30. Demonstration of assignment of a team leader and appropriate team structure. 31. Clear communication between team leader and team members. 32. Effective use of IFAKs, including their state of readiness 33. An awareness of patient dynamics, including sufficient attention to airway (positioning), risk of hypothermia and reassurance of the casualty. 34. Appropriate / ongoing attempts to evaluate patient consciousness, respiration and circulation, including signs suggesting respiratory distress and shock.

II. STANDARDS ALIGNMENT

Cadus's Basic Trauma Management course is based on the following internationally recognised and validated curricula:

- the **Tactical Combat Casualty Care (TCCC)** curriculum developed by the Committee on Tactical Combat Casualty Care (CoTCCC), the Prehospital arm of the Joint Trauma System of the U.S. Department of Defense, Defense Health Agency (DHA); and
- the **Tactical Emergency Casualty Care (TECC)** curriculum developed by The Committee for Tactical Emergency Casualty Care (C-TECC), a civilian committee modeled on the CoTCCC, which seeks to *'speed the transition of military medical lessons learned from the battlefield to evidenced- and best-practiced based operational medical guidance for medical response and treatment of the injured during high risk and atypical civilian operational scenarios'*.

Cadus consider both TCCC and TECC to be based on the most advanced and relevant international guidelines in managing acute, combat-like trauma situations as developed by the CoTCCC and C-TECC, hence referred to as International Guidelines.

Cadus therefore has adopted the approach and substance of both the TCCC and TECC curricula, recognizing the methodical and expert driven approach used by both CoTCCC and C-TECC in creating the guidelines on which the curricula are based.

TCCC / TECC SUB-LEVELS

The TCCC and TECC curriculum is sub-divided into different levels of response according to the existing knowledge of the participant. The BTM curriculum currently focuses on a basic level of response which is achievable by **any civilian regardless of existing medical or first aid knowledge**, and corresponds to

- 'All Service Member' level (ASM) in TCCC and
- Both 'Active Bystander' and 'First Responders with a Duty to Act' levels in TECC.

The BTM curriculum is therefore in alignment with these curricula with minimal and only strictly necessary adaptation to maximize their relevance to the particular context in Ukraine.

Finally, of note, the BTM curriculum is envisaged to run as stand-alone training and not needing to be incorporated into existing training schemes.

However, it is also offered as the first day of an extended, 2-day, trauma management course, Intermediate Trauma Management (**ITM**), which

- draws from additional levels in TCCC (Combat lifesaver, **CLS**) and TECC ('BLS/ALS Medical Providers')
- introduces the concept and specific scenario of Blast Injuries.

The BTM curriculum is directed towards civilians, whether healthcare professionals or not, who are exposed during their lives or work to risk of military strike or fire and who may be expected to offer a basic first aid response to such situations and resulting casualties.

The BTM curriculum aims to instill reflexes in first responders which will maximize the chance of saving lives due to a trauma arising from an attack before arrival of specialist medical teams.

In particular, the BTM module aims to ensure students

- Understand and value the importance of lifesaving skills and their role if applied correctly in the immediate aftermath in helping eliminate preventable deaths due to trauma resulting from military action
- Understand and value the importance of how lifesaving skills can also be used in everyday life in managing trauma
- Can perform such lifesaving skills at a basic proficiency level to eliminate preventable deaths resulting from
 - massive hemorrhage
 - airway obstruction
 - respiratory trauma
 - circulatory compromise
 - hypothermia
- Such skills specifically being
 - Rapid Casualty Assessment
 - Tourniquet application
 - Wound packing
 - Pressure bandage use
 - Airway manoeuvres
- Are aware of the importance of the following non-technical skills:
 - communication skills
 - leadership skills
 - team-working skills
 - decision-making skills
 - situation-awareness skills.

NB The extent to which the course explicitly teaches non-technical skills depends on individual centre preference and on sufficient time.

The BTM seeks to instill reflexes and a systematic approach in response to serious trauma, with particular emphasis on fast, automated responses and drilled skills.

IV. STRATEGY FRAMEWORK

The BTM classroom is based on a traditional lecture configuration, with audience and 'teacher', but then weaves in practical instruction with the aim of creating fast, efficient, automated responses to traumatic situations.

The acute nature of such trauma situations necessitates in favor of learned rather than reasoned responses. The approach is based therefore on a strict enacting of the TCCC/TECC guidelines rather than a nuanced interpretation.

Therefore, it is essential to the method that instructors follow an algorithmic approach to training, based around a strict following of the curriculum without unnecessary adjustments based on the personal experience of the trainer.

V. PREREQUISITES OF PARTICIPANTS

A. PREPARATION

The course is primarily focused on skills training, so a majority of the training time is allotted to interactive, practical learning rather than traditional, didactic teaching. Participants are expected to be familiar with the theory in advance through preparatory reading.

We ask all participants to read the following documents in advance of attending the course:

- the TECC Guidelines for First Responders with a Duty to Act (March 2019)
- Introduction to TCCC ASM Didactic Presentation (June 2023).

Both documents are freely available on the internet.

Participants who speak Ukrainian as a first language can consult the following TECC document in Ukrainian, specifically the sections noted below:

- Тактична екстрена медична допомога (ТЕМД) Рекомендації:
 - Рекомендації з надання допомоги в умовах прямої загрози /в «гарячій» зоні
 - Рекомендації з надання допомоги в умовах непрямой загрози /в «теплій» зоні:
 - 1-4, 8, 9, 13, 16, 18

NB The TECC guidelines in Ukrainian referred to above contain the entire guidelines for all levels of response. The BTM curriculum only covers those guidelines relevant to TECC's First Responders with a Duty to Act module, and these guidelines are those listed above in bold.

These documents contain all the theoretical knowledge necessary for the participant to pass the practical and theoretical assessments and obtain certification.

We recommend that the theoretical elements be assessed before and after the course through multiple choice questionnaire.

B. PRIOR KNOWLEDGE

The BTM curriculum has no formal requirements in terms to previous education beyond basic literacy. A participant may encounter difficulties however if they have no biological knowledge such as simple anatomy. If a course facilitator is aware of any participants with limited educational experience of confidence, this should be discussed with the BTM faculty to explore what additional pre-reading might assist.

Participants do not need prior healthcare training.

C. FITNESS AND PHYSICAL CONDITION

Participants are required to take part in physical exercises and the final assessment. Such exercises will include

- lifting of other participants to practice safe handling of casualties

- placement of limb tourniquets on themselves and other participants
- lying on the ground as a casualty
- kneeling down to assess casualties.

The exercises require a basic level of fitness and strength. We would advise that such information be communicated to all participants in advance with an appropriate safety warning such as:

“You are expected to participate in physical exercises and assessments. Please declare any existing injuries or serious past injuries, including those involving major joints such as knees and shoulders, which may impact your ability to participate safely. Further, any cardiac or respiratory condition should be made known to course organizer in advance. You remain responsible for your own safety and well-being and we ask you to abstain from participating if at any stage you are concerned about your ability to do so safely.”

D. PSYCHOLOGICAL PREPAREDNESS

The course raises issues of trauma resulting from conflict situations and features images and videos of trauma and ensuing management. While the images, videos and discussions should be framed sensitively, avoiding a sense of voyeurism or deliberate shock techniques, participants should be warned prior to the course about the nature of the material and given the choice to approach the organizers on the day if they are concerned about their own psychological response.

VI. ESSENTIAL RESSOURCES

A. PHYSICAL SPACE AND FURNITURE

The BTM curriculum requires a large physical space to carry out the practical demonstrations and participant exercises.

In general, the space needs the following core elements:

- Space for classroom/didactic learning, with chairs/desks, a whiteboard for projection or SmartTV screen
- Space for skills instruction. This requires a safe, neutral, clean space where participants can lie down at times for practice on each other
- Space for larger form exercises, potentially outside, with scope for multiple casualties and evacuation practice.

The classroom and skills instruction spaces can be combined and should be large enough to allow for creation of multiple sub-groups of participants. **This could be approximately defined as 3-4m² per participant, or 6-8m x 10m for a group of 15-20 participants.**

Whilst there will be short sections of didactic presentation and seating facing a whiteboard, the expectation is that there will be sufficient space and flexibility in furnishing that the traditional classroom can be dismantled to create large, open spaces for skills practice, **with chairs and desks moved aside easily or reconfigured into new positions**. Fixed furniture would be problematic.

In addition to the classroom space, it is advantageous to have an outdoor setting which can be used for real-life simulated exercises. The more similar such a space is to a real-life setting, the richer and more impactful the training will be.

Due to the active nature of the practical exercises, consideration needs to be given to making the learning spaces safe, without trip hazards (cables), slippery surfaces or sharp-edged objects. The

outdoor space needs to be methodically assessed in terms of trip hazards, external objects and other environmental elements.

An assessment should be carried out in advance on learning spaces to eliminate risks to participant safety.

B. TECHNOLOGY

The didactic component of the training requires a whiteboard to project from a laptop or a Smart TV for direct connection. The faculty will need a modern, efficient laptop, with up to date software (powerpoint) and adaptors to connect to projector or screen.

C. PARTICIPANT EQUIPMENT

Each participant should be given at the outset, for the duration of the training, the following items as a minimum:

- A CAT training tourniquet
- An emergency battlefield pressure dressing ('Israeli bandage')
- 2 rolls of ordinary gauze (for wound packing)
- A simple pouch to carry the above items.

This is referred to as the Individual First Aid Kit (**IFAK**).

Subject to the level of the participant, the following equipment can be added to the core items:

- A nasopharyngeal airway
- A chest seal for thoracic injuries

D. INSTRUCTOR EQUIPMENT

The instructors will ideally have access to the following items to demonstrate practical skills:

- Floor mats for safe placement of volunteers during skills demonstration or practice
- A wound tamponade mannequin (minimum 2, 1 per instructor)
- Artificial blood substitute for wound tamponade mannequin
- Sufficient gauze for wound packing
- An airway cross-section model to demonstrate simple airway obstruction management
- An airway (head) mannequin to demonstrate further airway obstruction management, including NPA placement (*optional*)
- Red tape or water-based red paint to simulate wounds on victims

E. TIMINGS

The BTM curriculum is envisaged to take around 6 hours with a class size of 15-20. This can occur over a single day (see Appendix [A] for suggested course schedule) or 2 days, depending in part on number of participants. If the course is run for more than 20 in a single session, it is recommended to space the material and practical exercises over 2 days.

VII. INSTRUCTOR COMPETENCE / QUALIFICATION

INSTRUCTOR COMPETENCE/QUALIFICATION

The training needs to be conducted by experienced instructors who have good theoretical and practical knowledge of the curriculum and the core skills. We recommend healthcare workers, doctors, nurses or paramedics (or equivalent) but first aid responders or experience first aid trainers would be able to teach the BTM curriculum if they:

- Have sufficient previous experience in real-life trauma management
- Have attended similar trauma courses
- Demonstrate a comprehensive knowledge of the curriculum.

Training competence can be demonstrated by any of the following certificates:

- Official certificated NAEMT TCCC course (All Service Member or Combat Lifesaver)
- Unofficial TCCC course from reputable provider
- Certificated PHTLS course
- Certificated ITLS course
- Other reputable pre-hospital course qualifications.

There can also be additional qualifications that evidence an Instructor's specific training / teaching ability and experience.

Overall, it is important to verify Instructor competence through direct observation and review of curriculum vitae.

LEAD INSTRUCTOR

Each course should have a lead instructor who is responsible for:

- Completing the pre-agreed prerequisites to teach the BTM course (whether attendance as a learner at a similar TCCC orientated course or thorough self-guided study) and ensuring fellow instructors do similarly
- Consistently oversee and monitor correct application of subject matter knowledge, and be confident and competent in performing and assessing core skills
- Ensuring you and your fellow trainers are familiar with the course plan, training materials, medical supplies and equipment in advance of the course
- Overseeing teaching that uses the standardized BTM curriculum
- Overseeing objective and structured assessment of the student's abilities to achieve basic competency in the core skills.

INSTRUCTOR TO PARTICIPANT RATIO

The didactic elements are anticipated to be deliverable by a single instructor to up to 20 participants, to allow for questions and appropriate interactive elements.

The practical elements rely on a lower ratio, around 6-8 participants per instructor.

On this basis, an BTM session of 15-20 participants would require 2 instructors.

GROUPWORK

We recommend that to facilitate learning and team-working skills, the participants be assigned into groups of 4-5 participants at the beginning of the day. These groups can be utilized for all tasks, from warm-up exercises, practical sessions and the final assessment.

VIII.TEACHING METHODOLOGY

BASIC APPROACH (CRAWL, WALK, RUN)

The course relies on the following methods and steps:

- 1) Theoretical instruction (the 'why' of the skill)
- 2) Demonstration of the skill by Instructor
- 3) Performance of the individual skill by the Participants with focus on specific micro-elements
- 4) Incorporation of individual skill into broader context and scenario
- 5) Utilization of individual skill in scenario alongside other skills and the complete assessment

The idea (referred to as Crawl, Walk, Run in TCCC military culture) is to build muscle memory by increasing the speed and stress of the skill practice, with additional distracting / confounding elements added through the session.

Thus, the basic skill can be tested with increasing additional elements such as:

- Noise and light stress
- Multiple casualties
- Environmental conditions

Distracting injuries (additional to injury subject to skill practice)

SKILLS TEACHING

There are different methodologies and variations for teaching practical skills. The most traditional is the 4-stage approach:

- **Stage 1: Demonstration of the skill by instructor at real speed.** This stage provides visual imagery and a realistic look at how the skill should be completed. No commentary or explanation is given, but any talking that ordinarily accompanies the skill should be included (e.g., shouting for help).
- **Stage 2: Repetition of the demonstration by the Instructor with dialogue,** providing the rationale for actions. This provides reinforcement — the performance is slowed and broken into parts to allow for questions on clarity and checking for understanding.
- **Stage 3: The demonstration is repeated, but the Instructor is verbally guided by one of the participants.** This phase begins the transition of the skill session to the participant. The participant talks the Instructor through the skill while the Instructor performs it. The Instructor does not lead the participant.
- **Stage 4: The participant repeats the demonstration with observation from the other participants.**

After the 4 stages, the participants practice independently. It is important that instructors circulate through the room and confirm understanding and practical skills.
If an instructor feels inclined, the 3rd and 4th stages could be combined.

IX. VERIFICATION METHOD

CERTIFICATION

There are numerous options for certification for trauma management courses, which confer benefits on the individual participant, a participant employer or academic institution to which the participant belongs, including:

- Quality control of both curriculum (knowledge component) and practical elements
- The potential for such certification to fit into national and international schema of continuous professional development.

However, in general there are issues surrounding external certification of courses, which mean that it is not an issue to rush or approach without consideration as to long term goals of the training course.

- External certification by bodies such as AHA and NAEMT can incur fixed costs.
- External certification can often mean fixing a curriculum to one which is not 100% relevant to a context, and removes flexible and adaptive learning objectives.
- Ordinarily, to award externally validated certificates, a training centre needs to be accredited (with significant administrative requirements) and needs to utilize separately accredited instructors.
- Accreditation ordinarily involves regular, fixed term review, with requirements for trainee numbers over a period.

In general, Cadus prefers to adopt a more flexible model, maintaining high quality training through experienced trainers and up to date equipment, utilizing respected open-source curricula (such as TCCC), without the limitation of having to deliver training only in accredited training centers and fix a curriculum to a context outside of its countries of operations.

Each course provider will need to decide if they wish to offer:

- certificate of attendance only
- **certificate of competence / attainment of standards, and which set of standards they are using.**

If the latter, the methodology and certifying body (internal or external) will need to be established in advance and made clear to participants, including how it fits with existing official systems of assessment and ongoing professional development.

TCCC CURRICULA / COURSES

Both TCCC and TECC courses can be conducted and certified by the National Association Of Emergency Medical Technicians (NAEMT), who 'license' independent training centers to deliver such courses through trained instructors. Thus, to be recognized as having attained a sufficient standard to be awarded a NAEMT certificate for either course, it would be necessary for a participant to

- pass a practical assessment

- at a recognised training centre
- be instructed by trainers recognised by NAEMT as being sufficiently experienced.

In the absence of a recognised training centre for the BTM in Ukraine, Cadus is not able to deliver NAEMT certification regardless of the experience of our instructors or the standard attained by the participant.

The TCCC / TECC certification can only occur in an official NAEMT training centre by instructors deemed by NAEMT to be sufficiently trained and experienced in delivering the curriculum.

We will support any effort to apply for and obtain training centre status and assist Ukrainian trainers to become recognised officially by internationally recognised awarding bodies such as NAEMT or ITLS, but we recommend this step only be taken with in-depth consideration of the value added by such certification to the training centre.

KNOWLEDGE ASSESSMENT

There is no written exam ordinarily used for assessment in either TCCC or TECC courses, due to the highly practical orientation of the curriculum.

However, Cadus is able to administer a simple written exam to assess knowledge of the curriculum and learning objectives if this assists an educational facility to provide certification pursuant to a plan of continuing medical education.

BASIC APPROACH TO PRACTICAL ASSESSMENT

Practical assessment is based around candidate(s) being assessed against pre-agreed checklists of actions. The situations and injuries that a participant encounters should be those which have been covered by the formal teaching.

The scenarios should not be unnecessarily complicated or involve application of skills or techniques outside of the curriculum. The casualties should be physically accessible, not obstructive of the assessment and without excessive distracting elements to prevent the participant from recognizing the skill being assessed. For instance, the following approaches should be avoided:

- Complicated scene management, with distracting elements such as passers-by or active / dynamic threats (explosions, moving objects etc...)
- Casualties who do not allow assessment of their own wounds or potentially manifest a threat, physical or verbal, to the participant
- Situations where the casualty cannot be accessed safely, such as placed in a position which is unsafe to the casualty or rescuer or without adequate lighting
- Additional events such as seizures or chest pain which require treatment of conditions outside of the curriculum.
- Management of multiple casualties simultaneously (triage).

Thus the participant must be faced with a managed simulation / controlled reality facilitating success and not setting-up failure.

CORE SKILLS TO BE ASSESSED

There are 5 core skills which should be assessed throughout the day on an ongoing basis:

- rapid casualty assessment (ELO 10)
- tourniquet application (ELO 13)

- hemostatic dressing (wound packing) (ELO 16)
- the application of a pressure dressing and (ELO 17)
- airway manoeuvres (ELOs 21 and 22).

The specific assessment criteria can be found in the separate skills assessment checklist documentation.

The participant should have access to the checklist after the assessment with his / her own performance marked.

NON-TECHNICAL SKILLS

Non-Technical Skills are interpersonal skills which include:

- communication skills
- leadership skills
- team-working skills
- decision-making skills
- situation-awareness skills.

They do not include the technical skills required to get the job done e.g. the technical skill or know-how to perform a procedure or use equipment. However, they complement these technical skills making them more efficient and effective.

There are many different versions of non-technical skills checklists, such as Anesthetists' Non-Technical Skills (ANTS), used in medical settings

Category	Elements
Situation awareness	Gathering information
	Recognising and understanding
	Anticipating
Teamwork and communication	Co-ordinating with the team
	Supporting colleagues
	Asserting authority
	Exchanging information
	Assessing capabilities
Task management	Planning and preparing
	Prioritising and problem solving
	Providing and maintaining standards
	Identifying and utilizing resources
Decision-making	Identifying options
	Balancing risks and selecting options
	Re-evaluating

Whilst teaching the non-technical skills can be difficult and is not part of the existing TCCC curriculum (reliant as much on experience as didactic learning), certain of the BTM learning objectives (ELOs 3, 6, 8, 9, 18, 19, 23) are heavily reliant on non-technical skills, and performance of the technical skills in a real-life or simulated context depends on non-technical skills performed alongside technical skills.

The decision to explicitly teach the Non-Technical Skills is at the discretion of the training provider. The following are included as ELOs (27-34) which rely exclusively or heavily on non-technical skills.

- An appropriate assessment of the CUF (red) and TFC (amber) zones and associated management of the scene.
- Demonstration of situational awareness of safety and patient condition, including an evaluation of safety before entering the CUF zone.
- Identified options for casualty movement, if necessary, and effect an optimally safe evacuation of the casualty
- Demonstration of assignment of a team leader and appropriate team structure.
- Clear communication between team leader and team members.
- Effective use of IFAKs, including their state of readiness
- An awareness of patient dynamics, including sufficient attention to airway (positioning), risk of hypothermia and reassurance of the casualty.
- Appropriate / ongoing attempts to evaluate patient consciousness, respiration and circulation, including signs suggesting respiratory distress and shock.

INDIVIDUAL VS GROUP ASSESSMENT

The extent to which each individual can be assessed methodically in each domain is dependent on timing and training session structure.

If BTM is delivered as a 2-day course (Intermediate Trauma Management ITM), then there is greater flexibility to ensure individuals are assessed methodically (whether formatively or summatively) in the core skills above.

If BTM is run as a 1-day stand-alone course, particularly if heavily populated, there may be insufficient time for such assessment. In this case, we recommend that participants be assessed in their assigned groups, but still preserving an element of individual assessment.

FORMATIVE (CONTINUAL) ASSESSMENT

Throughout the course, the instructors will informally assess participants, with regular correction and feedback. Although this should not form a part of a formal assessment linked to certification, it will assist with learning and also helped to identify participants who may not be ready to achieve the minimum standard required to be certified.

SUMMATIVE (FINAL) ASSESSMENT

If the course provider wishes to certify a participant according to an official standard (whether internal or external), they should give each participant their own skills assessment checklist at the start of the day, both to guide the participant and for completion by an instructor who can note the individual skills demonstration as far as possible given the number of participants.

If the number of participants does not allow for summative assessment for each key skill, it would be advisable that each of the key skills be assigned to a single team member of a group, such

that by the end of the assessment, as a minimum each participant has been assessed thoroughly with at least 1 skill.

FEEDBACK / DEBRIEFING

All feedback, whether as part of the practice of key skills, skills assessment (formative or summative) or at the end of course, should adhere to core principles such as but not limited to:

- **Focus feedback on the task, not the learner.** Avoid comments that are directed at participants and refer to individual attributes.
- **After highlighting any issue, offer constructive advice on how to improve.**
- Keep feedback brief and focused.
- Refer back to learning objectives. Limit references to elements that are not part of the learning objectives of the course.
- Give learners the opportunity to reflect on their performance.
- Remain positive, unbiased and objective.
- Avoid if possible final conclusions / judgements on performances (pass or fail, unless in the situation below), but it is acceptable to offer comments of a generalized positive nature.
- If there is an objective, summative nature to the assessment, feedback relating to passing / failing should be directed to the individual in private.

All instructors should have basic training / significant professional experience in the practice of feedback and debriefing.

Feedback is always assisted by design of tasks and assessment that clearly and simply test the learning objectives of the course and avoid overcomplicating or aggregating too many tasks together. Such tasks and assessments should be described in advance in terms of specific learning objectives:

“This task will test your ability to rapidly assess a casualty and use an appropriate technique to move the casualty to a safe location.”