A01: Clinical Approach

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Introduction

The clinical approach represents the minimum standard of assessment that paramedics and EMRs/FRs should provide for a patient. Patients in BCEHS care require ongoing assessments of their vital signs every 15 minutes to monitor trends. If this standard cannot be met, or is considered clinically unnecessary, the rationale should be documented. Patients who are unwell or predicted to deteriorate should have their vital signs monitored more frequently.

For the majority of patients, it will be appropriate to establish a personal rapport and to collect a verbal history prior to beginning any physical assessments. This process should not lead to excessive delays in obtaining vital signs. Critically ill or otherwise unwell patients require a more formalized primary survey and systematic approach to information gathering.

Essentials

BCEHS provides patient-centred care. This means that paramedics and EMRs/FRs will provide safe, effective, and compassionate patient-centred care in all interactions by:

- Treating patients, carers, and families with dignity and respect.
- Encouraging and supporting shared decision making by patients, their families, and carers.
- Communicating and sharing information with patients, their families and carers, and other members of their healthcare team.
- Obtaining consent and considering patient wishes and values in all decisions.

Paramedics must ensure that resuscitation equipment for cardiac arrest management is readily available at **every** patient encounter to promote patient safety for events where the patient's clinical condition is not fully known at the time of dispatch, or may differ from the dispatch information. This includes, at a minimum:

- AED or LifePak 15 monitor/defibrillator
- Jump kit with airway management equipment
- Suction device
- Oxygen

Additional Treatment Information

- **First, do no harm.** Paramedics and EMRs/FRs must act, at all times, with due consideration for the safety of patients:
  - Always assess the risk versus benefit of any treatment or procedure.
  - Advocate for the health and safety of all patients.
  - Demonstrate person-centred care by acting in a manner that ensures the patient’s dignity, safety, privacy, confidentiality, and decision-making are maintained.
- **Professionalism, accountability, and responsibility.** Each paramedic’s and EMR's/FR's professional and legal responsibilities are prescribed by:
  - The Emergency Medical Assistants Regulation and the Code of Ethics.
  - BCEHS Clinical Practice Guidelines, Pharmacology, Skills and Procedures.
  - Compliance with BCEHS Policies and Procedures, Practice Updates, and Safety Alerts.
- **Scope of Practice.** Paramedics and EMRs/FRs must treat within their own scope of practice as defined by BCEHS and the EMALB. Paramedics and EMRs/FRs cannot exceed the legal scope of practice for which they hold an EMA license (including Schedules 1 and 2), though their operational scope of practice can be limited or restricted by BCEHS (→ A04: Duty of Care).
- **Scene assessment.** Safety of the paramedic and EMR/FR, patient, and bystanders is of the utmost priority:

- Scene assessment commences as soon as visual contact is made with the scene (CPG A02: Patient Assessment).
- The dynamic risk assessment must be part of every clinical event. BCEHS does not expect paramedics and EMRs/FRs to place themselves at risk of injury during any patient encounter.

- **Infection Prevention and Control (IP&C).** The main goal of infection prevention and control is to prevent the transmission of health-care-associated infections to patients and paramedic practitioners and EMRs/FRs:
  - The modern application of infection control is described as 'routine practices and additional precautions' which must be applied to every patient for every event.
  - Routine practice does not include the use of personal protective equipment (PPE). Paramedics and EMRs/FRs should apply a point of care risk assessment (PCRA) and, if a hazard exists, apply appropriate precautions (e.g., one of the three isolation procedures).
  - The single most effective IPAC procedure to control infections in the workplace and reduce the spread of infections is hand hygiene.
  - Gloves are task specific and meant for single use for change between procedures and patients. Their use does not replace the need for hand hygiene after their removal.
- **Communication.** Early activation of additional resources is essential:
  - Clear, confident, verbal and nonverbal communication is central to a patient's perception of professional care.
  - Communication must take into account the psychosocial needs of patients, family, and carers.
- **Treatment and Referral Decisions.** It is the responsibility of paramedics and EMRs/FRs to:
  - Perform a comprehensive patient assessment (→ A02: Patient Assessment).
  - Discuss and explain the patient's presenting clinical condition, including any related comorbidities, with the patient or their carer and determine the appropriate treatment and referral decisions.
  - Manage the patient as required through the application of the BCEHS Clinical Practice Guidelines.
  - If in doubt about the diagnosis and the specific treatment required, give basic supportive measures, minimize time on scene, and consult with CliniCall (1-833-829-4099) if possible.
- **Conveyance Decisions.** Time on scene must be kept to a minimum with only time critical and/or meaningful interventions performed on scene with additional treatment provided en route:
  - If the arrival time of clinical back-up is expected to exceed the time required to load and convey the patient to a hospital, paramedics and EMRs should convey the patient.
  - In the event that higher levels of care or additional resources are required for safe patient care, en route intercepts can be considered.
- **Choice of Clinical Pathway.** The clinical pathway is influenced by the patient's presenting condition and the relative proximity to a designated specialized care facility. Follow BCEHS clinical pathways when determining hospital destinations:
  - Stroke patients may bypass the local facility and proceed directly to a primary or comprehensive stroke centre as directed by the FAST-VAN Stroke Tool and regional stroke clinical pathways.
  - STEMI patients may bypass the local hospital and proceed directly to a facility with specialty expertise in reperfusion strategies, in accordance with regional patient pathways.
  - Trauma patients may bypass local facilities and be transported directly to a trauma centre. Follow guidelines in the local clinical pathways.
  - Certain patients may meet criteria to be conveyed to alternate destinations where local clinical pathways are available.
- **Alternative referral decisions.** When patients are not conveyed by ambulance, paramedics or EMRs must:
  - Provide the patient with information on how to manage their condition, what to do if their condition does not improve, and when to see their general practitioner.
  - Confirm the patient is able to mobilize, access transport, and attend alternative care facilities.
- **Ambulance off-load.** Prepare patient and equipment for off-loading:
  - Remove PPE prior to leaving the vehicle and perform hand hygiene.
  - If the patient's condition does not allow for the removal of PPE, remove and replace gloves prior to departing the ambulance.
  - On-going patient assessment and treatment continues at the receiving facility until the formal clinical handover takes place including serial vital sign assessments, continuation of various monitoring devices, and rechecking the effectiveness of interventions.
- **Clinical handover.** It is the responsibility of paramedics and EMRs/FRs to ensure they provide and/or receive a comprehensive clinical handover using the mnemonic ATMIST or SBAR (→ A03: Clinical Handover) whenever patient

care responsibility changes from one clinician to another and to ensure they understand all care requirements for the patient:
  - Whenever possible, and when it is in the best interest of the patient, practitioners should provide the handover report with the patient in view of the accepting healthcare provider to facilitate patient recognition and encourage assessment as required.
  - It is recognized that extenuating circumstances may make it unacceptable to complete clinical handover in the presence of the patient.
- **Documentation.** Documentation is important and a clinical record is required for all patient contact (→ A06: Documentation Standards); patient care documentation must:
  - Be accurate, as factual as possible, and provide a clear, concise, and complete account of the event.
  - Be completed at the time of, or as close as practicable to, the event.
  - Incorporate all treatments/interventions provided, including patient vital signs and assessment findings prior to and post treatment, and recording of ECGs where appropriate.
    - Note: In cases where a minimum of two sets of vital signs are not taken or recorded, paramedics and EMRs must document the reasons within the free text in the clinical record.
  - Record the paramedic or EMR recommendations and reasons, including a summary of any communication between the paramedic or EMR and patients and/or carers.
  - Record a copy of any first responder documentation.
  - Record any advice provided by a Paramedic Specialist or the emergency medical services physician online support doctor.
  - Record at least the minimum dataset required per CPG A06: Documentation Standards.
  - Practitioners shall leave copies of the patient care record and any associated documentation with the receiving facility prior to leaving the facility. This may include uploading a digital version of the ePCR without printing a hard copy.
  - When available, ECG's must include the patient name and copies of the pre/post treatment (e.g., SVT treatment with adenosine).
  - Document and co-sign all controlled substance usage and wastage in the patient care record as per BCEHS MP 210.
  - Ensure verbal orders from a physician, direction from a Paramedic Specialist, or communication with CliniCall are documented in the ePCR.
  - Transcribed orders must fall within the scope of practice of the paramedic or EMR.

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Practice Updates

- 2023-05-23: added minimum equipment requirement to Essentials

A02: Patient Assessment

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Essentials

- The goal of patient assessment is to construct a mental model of the clinical condition under consideration and to develop an effective and appropriate care plan in a safe and appropriate environment.
- Regardless of the specific model used, all patient assessments must include, at a minimum:
  - A dynamic and ongoing risk assessment, both prior to and following contact with the patient.
  - A preliminary examination, made from first visual contact, intended to gather information on potential life-threatening hemorrhage, mechanism of injury, and establish a general impression of overall clinical condition.
  - A primary survey aimed at identifying life-threatening conditions to allow for prioritization of interventions.
  - The identification of a chief complaint and its associated history.
  - A clinical history of the patient, including current medications, any allergies, and current levels of intervention (as applicable).
  - Focused physical and functional exams to include or exclude relevant differential diagnoses.

Scene Control and Hazard Assessment

The assessment process begins prior to making contact with the patient. The scene survey forms the basis of the ongoing risk assessment that continues throughout the entire call; paramedics and EMRs/FRs must be aware of hazards in the patient's environment, including along the ingress and egress routes, and take appropriate steps to mitigate those hazards.

Guidance on managing specific hazards is outlined in the High Risk Hazard guide. In cases where hazards cannot be suitably controlled, or mitigation strategies are unclear, paramedics and EMRs/FRs should withdraw to a safe distance and seek additional resources. Withdrawing may be as simple as waiting in a hallway or involve leaving the scene completely and moving to a location that is known to be safe. Paramedics and EMRs/FRs must exercise judgment when deciding whether a scene is safe or not, and in all cases, err on the side of physical distance.

Control of the scene can be multifaceted. Wherever possible, lights on the ambulance should be used to illuminate paths to and from residences. Paramedics and EMRs/FRs must ensure a clear and direct route is continually available between the ambulance and the patient; doors should be left open, or at a minimum unlocked. When possible, uninvolved bystanders should be removed from the immediate area to protect the patient's privacy, to ensure paramedic and EMR/FR safety, and to minimize distractions while managing the patient.

In all cases, paramedics and EMRs/FRs must ensure that roles and responsibilities are clearly defined. Paramedics and EMRs/FRs should be particularly diligent about discussing these when confronted with cases predicted to be complex for any reason and the precise nature of that complexity will vary from paramedic and EMR/FR to paramedic and EMR/FR. Collaborative assessments making effective use of the skills of all providers at a scene will improve patient care.

Initial and Primary Survey

A significant amount of information can be obtained 'from the doorway', prior to making physical contact with the patient. The goal of the initial survey is to identify life-threatening hemorrhage requiring immediate control, identify a potential mechanism of injury, delegate responsibilities for spinal motion restriction, and formulate a general impression of the patient's overall condition. The overall impression can help paramedics and EMRs/FRs to establish priorities for care and to set the pace of the call; patients who appear unwell require more immediate assessment and intervention, while patients who appear well may benefit from a more relaxed tempo. Paramedics and EMRs/FRs should observe the patient's work of breathing, the appearance of their skin, and their mentation to form a general impression of the patient's condition and acuity.

Prior to beginning a formal primary survey, life-threatening hemorrhage must be controlled. This can be accomplished through the use of delegated direct pressure or placement of a tourniquet as needed. See D02: Bleeding for additional details on hemorrhage control.

The primary survey is intended to guide paramedics and EMRs/FRs in the identification of other life-threatening problems. The assessment should begin with an evaluation of the patient's level of consciousness using a coarse scale; patients will either be spontaneously alert, responsive to voice, responsive to pain, or unresponsive. If a pain stimulus is required, it should be appropriate for the diagnostic purpose: sternal rubs are generally unhelpful and should be avoided, while trap squeezes, supraorbital pressure, and fingernail pressure are more useful for establishing levels of consciousness and identifying focal neurological deficits.

In patients who are conscious, paramedics and EMRs/FRs should assess the airway, breathing, and circulation. Patients who are unconscious should have their circulation and breathing assessed simultaneously and chest compressions initiated if pulses are absent; formal assessment of the airway can be deferred until resuscitation is underway. In all cases, issues or problems identified in the primary survey must be managed immediately upon discovery, either directly by the attending paramedic or EMR/FR, or delegated as a task to other providers.

The primary survey should conclude with an evaluation of the patient's skin colour and temperature followed by a rapid but comprehensive physical exam tailored to the overall clinical scenario.

Following the completion of a primary survey and its associated interventions, a chief complaint must be identified, and a history of the chief complaint obtained.

Secondary Survey

At this point, vital signs should be taken (ideally by delegation). Paramedics and EMRs/FRs may have gathered enough information at this point to formulate an appropriate treatment plan, or they may need to interview the patient and conduct a physical examination to gain further details. Interventions or investigations that are time-sensitive should be performed at this point, while preparations are being made for conveyance of the patient if that is the most appropriate disposition.

Clinical Scores and Assessment Tools

BC Emergency Health Services advocates the use of the National Early Warning Score 2 (NEWS2) to identify patients at risk of rapid deterioration. NEWS2 scores should be obtained on all patients and used to guide clinical decision-making, particularly in the areas of conveyance, destination or clinical pathway selection, pre-arrival notification, ongoing monitoring, and emergency department advocacy. Note: SpO_2 Scale 1 is for patients not diagnosed with COPD; SpO_2 Scale 2 is for patients diagnosed with COPD.

Chart 1: The NEWS scoring system

Physiological parameter	Score 3	2	1	0	1	2	3
Respiration rate (per minute)	≤8		9–11	12–20		21–24	≥25
SpO_2 Scale 1 (%)	≤91	92–93	94–95	≥96			
SpO_2 Scale 2 (%)	≤83	84–85	86–87	88–92 ≥93 on air	93–94 on oxygen	95–96 on oxygen	≥97 on oxygen
Air or oxygen?		Oxygen		Air			
Systolic blood pressure (mmHg)	≤90	91–100	101–110	111–219			≥220
Pulse (per minute)	≤40		41–50	51–90	91–110	111–130	≥131
Consciousness				Alert			CVPU
Temperature (°C)	≤35.0		35.1–36.0	36.1–38.0	38.1–39.0	≥39.1	

Score	Clinical Risk	Practitioner Response
Aggregate score 0 - 4	Low	• Routine monitoring • Routine transport or referral pathway as required
Score of 3 in any individual parameter	Low - Medium	• Monitor carefully • Routine transport as required
Aggregate score 5 - 6	Medium	• Monitor carefully • Attempt to optimize oxygenation, ventilation, and perfusion • Consider advanced care intercept where available • Consider emergency transport to hospital • Consider pre-arrival notification • Consider CliniCall consultation
Aggregate score ≥7	High	• Monitor continuously • Maximize oxygenation, ventilation, and perfusion • Seek advanced care intercept, but do not delay transport in doing so • Emergent transport to hospital • Pre-arrival notification

NEWS2 is not intended to replace sound clinical judgment. Its purpose is to alert practitioners to the risk of sudden deterioration and to help identify those patients who require more aggressive monitoring, treatment, and advocacy. This is particularly valuable in the context of infectious diseases and suspected sepsis.

For pediatric patients, an equivalent scoring system -- the BC Pediatric Warning Score (PEWS) -- can be used for the same purposes as NEWS2.

BC PEWS Vital Signs Reference Card

Age	Heart Rate Beats per minute	Respiratory Rate Breaths per minute	Systolic / Diastolic BP	MAP mmHg
0 – 28 days*	104 – 162	31 – 60	60 – 80 / 30 – 53	40 or higher
1 – 3 months*	104 – 162	31 – 60	73 – 105 / 36 – 68	48 or higher
4 – 11 months*	109 – 159	29 – 53	82 – 105 / 46 – 68	58 – 80
1 – 3 years†	89 – 139	25 – 39	85 – 109 / 37 – 67	53 – 81
4 – 6 years†	71 – 128	17 – 31	91 – 114 / 50 – 74	63 – 87
7 – 11 years†	60 – 114	15 – 28	96 – 121 / 57 – 80	70 – 94
12 plus years†	50 – 104	12 – 25	105 – 136 / 62 – 87	76 – 103
Temperature °C	**Oral:** 35.5 – 37.5, **Axilla:** 36.5 – 37.5, **Rectal:** 36.6 – 38.0, **Temporal:** 36.3 – 37.8			

HR and RR ranges: CTAS 2013
Temperature ranges: CPS 2015
BP ranges: *Modified from American Heart Association (2012). *Pediatric emergency assessment, recognition, and stabilization (PEARS) provider manual.*† National Heart, Lung and Blood Pressure Institute (2004). The fourth report on the diagnosis, evaluation, and treatment of high blood pressure in children and adolescents. *Pediatrics, 114(2)*, 555-556.

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Treatment and Disposition

Paramedics and EMRs/FRs must exercise judgment and manage their time on-scene effectively. Tasks that have minimal effects on clinical outcomes should be deferred until the patient is en route to the destination facility. On-scene tasks should be limited to those procedures and interventions that will yield meaningful information that affects the overall management plan or that addresses an immediate and urgent patient need. Attending paramedics and EMRs/FRs should not feel pressured to perform all tasks: the effective use of one's partner and other responders is a hallmark of effective clinical practice and the delegation of tasks – obtaining vital signs, completing documentation, initiating vascular access – is critical to good time management while on-scene.

Scene Control Does not require patient contact	• Personal protective equipment selection and donning • Conduct initial risk and hazard assessment (risk assessment is ongoing throughout the call: if hazards become uncontrollable, leave the scene immediately) • Determine number of patients and any other resources required • Control scene (lighting, ingress/egress routes, access to doors and elevators)
Initial Assessment Conduct from a distance	• Assess for and control major hemorrhage • Establish mechanism of injury • Delegate spinal motion restriction as required • Determine general nature of illness or injury • Conduct "doorway survey": observe work of breathing, general mentation, circulation to skin

Primary Survey	• Level of consciousness
	  ○ If conscious: airway and breathing, circulation
	  ○ If unresponsive: circulation, airway, and breathing concurrently
	• Correct life-threatening abnormalities
	• Perform focused rapid physical exam
	• Identify chief complaint
	• Determine probable "pace" for call

Secondary Survey	• Obtain relevant clinical history • Conduct appropriate diagnostic testing (vital signs, ECG, etc.) • Expose and examine as required based on chief complaint • Delegate patient care activities as required
Treatment and Disposition	• Formulate diagnosis • Develop and implement treatment plan • Determine appropriate patient disposition

A03: Clinical Handover and Communication

Original by Shauna Speers and Leon Baranowski; updated by Rhonda Chartrand and Mike Sugimoto

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Introduction

Effective communication during transitions of patient care from one health care provider to another, or handovers, is a critical component of a patient safety-centred culture. Ineffective handovers cause confusion and are the most common underlying cause of adverse patient events across health care, regardless of setting or the specific providers involved.

All health care professionals, including paramedics, emergency medical responders, first responders, nurses, and physicians have an obligation to ensure that patient information is appropriately and comprehensibly shared with other providers. A structured tool that promotes the use of a standardized handover format can significantly improve patient safety during critical phases of care, and encourages the development of a shared mental model that allows for more information sharing.

The ATMIST AMBO mnemonic tool is BCEHS's approach to structured and standardized handovers during most clinical scenarios. A separate tool, SBAR, is intended for use during clinical consultations (i.e., with CliniCall or EPOS). All providers, regardless of licensure or role, are expected to use the ATMIST AMBO tool for all transitions of care, both in- and out-of-hospital. The use of a structured handover tool is a required organizational practice for accreditation, highlighting its importance to strengthening patient safety.

Essentials:

To effectively perform a clinical handover, paramedics, emergency medical responders, and first responders should:

- Ensure an appropriate environment for handover with consideration for patient confidentiality and to limit non-critical interruptions during the handover.
- Provide relevant, timely, accurate information in common language without the use of abbreviations or jargon.
- Use a structured, standardized tool to provide this information.

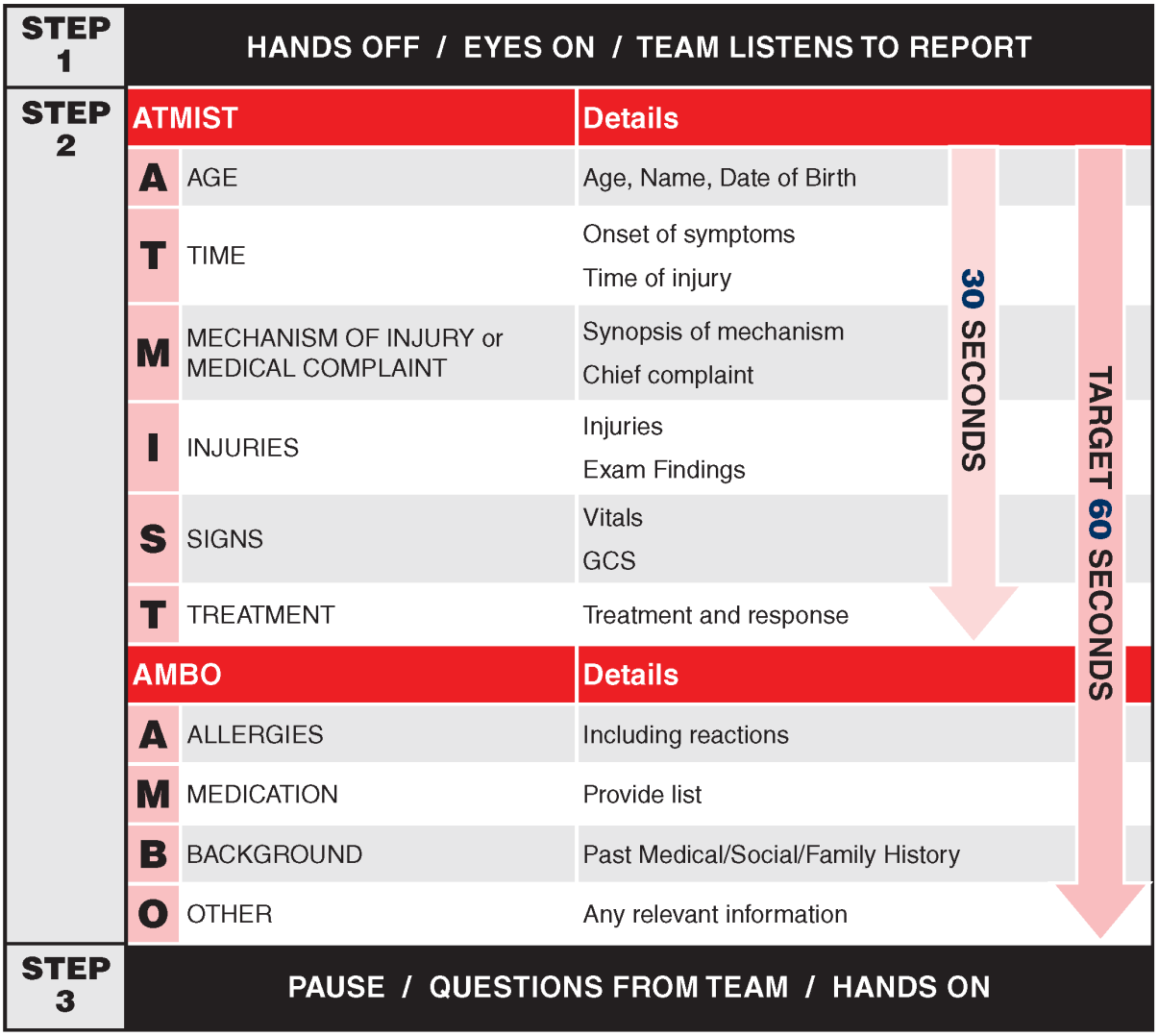
Clinical handovers of critical patients should, ideally, include a 20-30 second period where the patient remains on the ambulance stretcher, with the receiving providers in a "hands off, eyes on" period while the structured handover is completed. The goal of this period is to minimize distractions during the handover, allowing providers to exchange information without having to compete with external tasks, conversation, or instructions, and to increase overall team situational awareness. Patient condition may not always permit this 20-30 second pause, however all providers must, while giving or receiving a handover report, focus directly on the handover itself rather than attending to additional patient care tasks.

General

A structured clinical handover tool is designed to provide a mechanism to consistently provide patient information during a transition of care. Structured tools work because they provide a standardized framework for the presentation and communication of relevant clinical data, formatting and organizing information in such a way as both the sending and the receiving providers know what to expect at each step of the handover. This standardized format speeds the creation of a shared mental model and reduces the chances that important information is accidentally missed or excluded in handover conversations.

British Columbia paramedics, emergency medical responders, and first responders use two handover tools: ATMIST AMBO and SBAR. Both reduce adverse events and improve the accuracy of information exchange, although they serve different roles. Providers working in the out-of-hospital care system in British Columbia must become familiar with these tools, and use them consistently while engaged in patient care activities.

ATMIST AMBO



The primary tool used during transitions of care between two providers is ATMIST AMBO. As with all structured tools, ATMIST AMBO is intended to present information in a logical, sequential fashion, with the most critical information presented earlier in the handover report. This tool is used when a paramedic, emergency medical responder, or first responder is transitioning care to another health care provider, including delegations of care in the out-of-hospital environment as well as bedside handovers in hospitals.

ATMIST is the recommended tool for pre-arrival notification to hospitals. Pre-arrival notification is **required** for the following patient types:

- ST elevation myocardial infarction
- Suspected stroke (FAST+ or FAST-VAN+)
- Cardiac arrest (post-arrest or with ongoing CPR)
- Patients meeting major trauma criteria
- Patients who are unstable, as defined by:
  - Systolic blood pressure below 90 mmHg
  - Heart rate above 130 beats/minute, or below 40 beats/minute
  - Respiratory rate above 30 breaths/minute, or below 8 breaths/minute
  - Requirement for high-flow supplemental oxygen therapy to maintain oxygen saturation
  - GCS less than 13
  - Impending airway compromise
- Restraints required
- Active labour and other maternity-related patients
- Patients with spinal motion restrictions in place

- Pediatric patients with a PEWS score of 5 or higher (or meeting major trauma criteria)
  - NB: Pre-arrival notification for pediatric patients is facility-specific. Consult local hospital guidelines.
- Significant drug or other toxic overdose with anticipated rapid decline (e.g., insulin, bupropion, beta blockers, tricyclic antidepressants, etc.)
- Suspected Covid or other infectious disease (e.g., tuberculosis, ebolavirus disease)
- Mass or multiple casualty incidents
- Interfacility transfers arriving from an airport
- Any predicted need for immediate pharmaceutical or therapeutic intervention upon hospital arrival

Paramedics should **consider** notifying hospitals prior to arrival in cases where:

- Paramedic discretion results in a heightened concern for patient condition
- High profile patients that may require extra security or crowd control
- Ischemic emergencies (e.g., leg or testicle)
- Ocular emergencies with vision loss
- Active atraumatic bleeding (e.g., epistaxis, vaginal or gastrointestinal bleeding)

Triage reporting *may* follow the ATMIST structure, but workflows vary between health authorities, and providers will need to remain flexible to the requirements of individual facilities and staff.

For the most critically ill patients – particularly during a handover to a team of providers – it is recommended that all providers observe a 20 to 30 second "hands off, eyes on" period where the attending paramedic delivers the ATMIST information without the distraction of on-going care activities and patient and equipment transitions. Depending on patient condition, this may not always be possible, although regardless of circumstances, the lead providers should try to ensure they can speak without interruption or distraction during the handover.

Under ideal circumstances, the complete ATMIST AMBO handover should take no more than 45 to 60 seconds, exclusive of the need for clarifying questions from receiving providers. This time is representative of experienced providers working collaboratively; early use of the tool, by providers unfamiliar with its novelty, may result in longer handovers – this is not considered problematic, and as providers will become more comfortable with the tool, times for handovers will shorten.

Health authority use of ATMIST AMBO varies. Regardless of whether a receiving provider is familiar with ATMIST AMBO, the use of a structured tool helps to organize and simplify a handover report; the onus of ensuring the tool is used rests with the provider delivering the report, not the recipient. Under some circumstances, such as low-acuity patient handovers, there is an opportunity for experienced providers to provide in-the-moment introductions to the tool; BCEHS encourages its paramedics, emergency medical responders, unit chiefs, and clinical operations managers to have those conversations with their colleagues to promote the use of ATMIST AMBO.

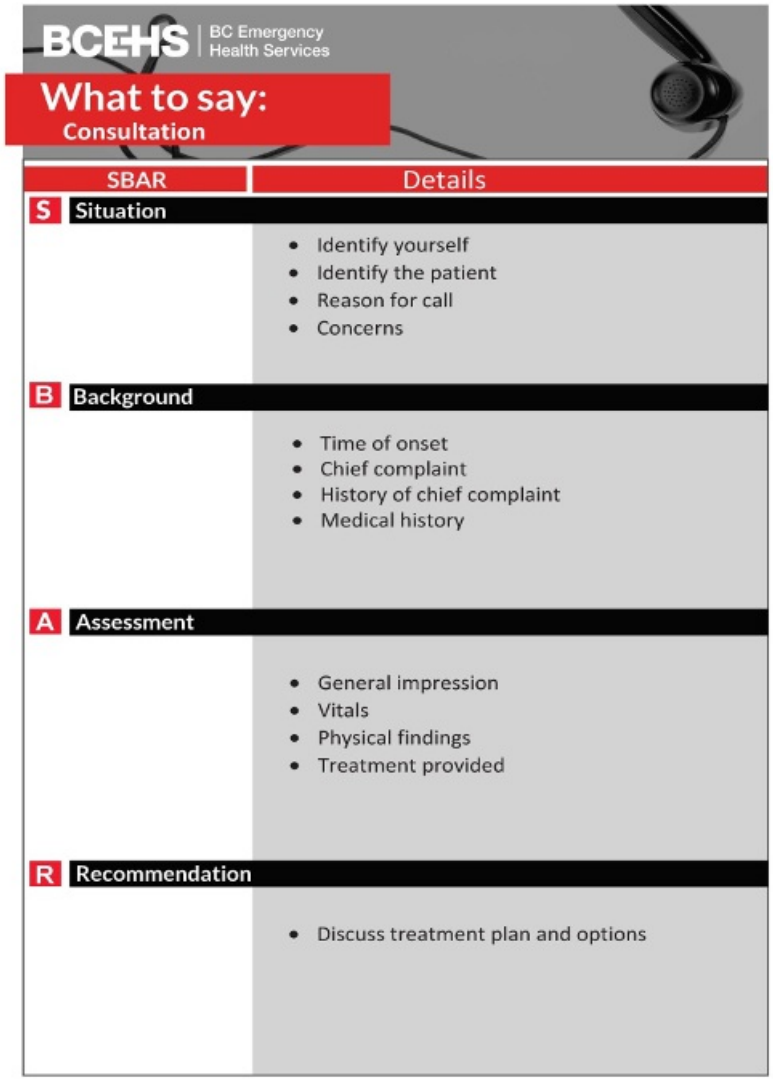
ATMIST AMBO should also be used during transitions of care outside of the hospital in alignment with → A13: Patient Care Planning for Handover, and regardless of whether the receiving paramedic or emergency medical responder was intimately involved in the on-scene care of the patient; recall that the purpose of the tool is to ensure critical information is not missed, and that an effective, shared mental model has been created between two providers.

The content of an ATMIST AMBO report can easily be seen on the attached visual aids. When delivering an ATMIST AMBO report, it may help to announce the title of each section before its accompanying information. Templating this material by writing it down prior to handover may help to organize and summarize patient information.

Keep material in each section short, clear, and concise; do not use excessive jargon or technical terminology – different providers use language differently, and concepts and terms may be different in the out-of-hospital and in-hospital realms. Plain language is always better than technical verbiage.

Speak loudly and clearly. Pause where appropriate, allowing time for listeners to hear and understand messages. Conduct handovers such that patient and privacy confidentiality may be preserved whenever possible.

SBAR



ATMIST AMBO is best suited for the transition of care between providers physically present with the patient. During consultations – such as those with CliniCall – an alternative format is preferred: SBAR. Like other structured communication tools, SBAR presents patient information in a consistent format to enhance shared clinical understanding and is functionally similar to ATMIST AMBO with one key difference –SBAR provides a brief, functional summary of the patient's status with the goal of making and obtaining recommendations for ongoing care. BCEHS Paramedic Specialists and Emergency Physicians are trained in the use of SBAR and will be familiar with it during all consultations.

As with ATMIST AMBO, clarity is preferred over conciseness. Because these are telephone conversations, ensuring that information has been accurately conveyed and understood is important – be sure the connection is clear and that both sender and receiver understand each other, and allow time for recipients to make notes before moving on to another element of the report. It may be helpful to template an SBAR by writing it out prior to making the phone call if time permits.

The use of SBAR for the delivery of patient information in other circumstances is deprecated, and should be replaced by ATMIST AMBO as soon as possible.

Resources

- LearningHub: ATMIST AMBO Clinical Handover -- Health Authority Emergency Departments

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Brighton Pediatric Early Warning Score

Brighton Pediatric Early Warning Score					
	0	**1**	**2**	**3**	**SCORE**
Behaviour	Playing Appropriate	Sleeping	Irritable	Lethargic **&/OR** Confused **&/OR** Reduced response to pain	
Respiratory	Within normal parameters No recession or tracheal tug	10 above normal parameters, Using accessory muscles, **&/OR** 30+% FiO2 or 4+ liters/min	>20 above normal parameters recessing/retractions, tracheal tug **&/OR** 40+% FiO2 or 6+liters/min	5 below normal parameters with sternal recession/retractions, tracheal tug or grunting **&/OR** 50% FiO2 or 8+liters/min	
Cardiovascular	Pink **&/OR**capillary refill 1-2 seconds	Pale **&/OR** capillary refill 3 seconds	Grey **&/OR** capillary refill 4 seconds Tachycardia of 20 above normal rate.	Grey and mottled or capillary refill 5 seconds or above **OR** Tachycardia of 30 above normal rate or bradycardia	
Q15 minutes bronchodilators &/OR persistent vomiting following surgery (2 points each)					
TOTAL PEWS SCORE					

A04: Duty of Care

Joe Acker
Reviewed: December 2, 2020

Introduction

It is the responsibility of all BCEHS paramedics and EMRs to be knowledgeable of, and to work within, their approved scopes of practice as outlined in the BCEHS Clinical Practice Guidelines (CPGs) and to use the clinical approach and patient assessment CPGs for the initial assessment, reassessment, and treatment of all patients.

Patients may present with multiple clinical conditions, and in these cases, practitioners must apply clinically indicated practice guidelines concurrently while continually reassessing the patient's status and care needs.

Paramedics and EMRs must report deviations from clinical practice, patient safety events, near misses, and clinical errors via the Patient Safety Learning System (PSLS), and provide relevant information to support clinical case reviews and root-cause analyses.

Paramedics and EMRs shall accurately complete all required documentation including a patient care report for each patient encountered.

The paramedic or EMR on-scene with the most qualified designated role, as determined by BC Emergency Health Services, shall be the most responsible paramedic (MRP), or EMR. The MRP or EMR is responsible for determining the level and type of care required by the patient, both on-scene and during conveyance. This is best accomplished by ensuring all providers collaborate within their current scopes of practice (including any limitations or conditions that may exist), and by continually reassessing the level of care required.

This Clinical Practice Guideline provides guidance for the following considerations:

Section 1: Consent for care of minors

Section 2: Transfer of patient care between levels of care

Section 3: Consolidation of patient care at hospital

Section 4: Assessment and care of patients in custody

Section 5: Refusal of care

Section 1: Consent for Care of Minors

A minor is a person who is not an adult and is under the age of majority. The *Age of Majority Act* defines the age of majority as 19 years of age.

Paramedics and EMRs/FRs must obtain informed consent from parents or legal representatives prior to providing care for minors (exception 2.1).

Paramedics and EMRs/FRs may provide care to minors in situations where the parents or legal guardians are not present in circumstances where the delay of emergency medical care could cause significant harm to the patient. In these situations, paramedics or EMRs/FRs should attempt to contact a parent or legal guardian as soon as appropriate and document the circumstances regarding the care provided to minors without consent from parents or legal guardians.

Under the terms of the *Infants Act,* a mature minor may make decisions regarding their own health care. There is no single accepted definition of a mature minor. However, paramedics and EMRs/FRs must exercise judgement when deciding whether a minor could be considered a mature minor. Traits of a mature minor could include:

- A demonstrated ability to make independent decisions (e.g., calling 911)
- Actions taken in their own best interests
- The ability to make clear, independent judgements
- The capacity and intellectual ability to understand the risks and benefits of a proposed care plan
- Age between 14-19 years
- Living apart from parents (e.g., married/common-law)

- Economic independence and success at managing personal affairs

Paramedics and EMRs/FRs must document their reasons for granting mature minor status.

A mature minor's decision to give or withhold consent for health care cannot be overridden by parents or guardians.

Mature minors may be given care without consent in situations where the delay of emergency care could cause significant harm to the patient. In these scenarios, paramedics or EMRs/FRs should seek to obtain consent as soon as possible, and must document the circumstances around the care provided.

Paramedics and EMRs should contact CliniCall if there are concerns with respect to care plans for minors.

Paramedics and EMRs must arrange for mature minors to sign a Refusal of Care record on the PCR in situations where they refuse care or conveyance.

Section 2: Transfer of Patient Care

All BCEHS patients should be afforded care consistent with their immediate or expected clinical needs. If there is a perceived need for higher levels of care, or consultation, such care or guidance should be sought, either by intercept with another resource or through CliniCall.

Transfer of Care during Inter-Facility Transports (IFTs) Post Patient Medication Administration

When a patient has received medications outside the scope of practice of an EMR or PCP and requires conveyance to another facility, the EMR/PCP unit may convey if all of the following criteria are met:

- The patient does not require any further non-scope medications en route
- The patient's vital signs are within normal limits
- It has been a minimum of 15 minutes since the medication administration
- The patient meets local IFT guidelines for conveyance
- Consult CliniCall for direction in other extenuating circumstances where transfer of care is required

Transfer of Care during Newton's Cradle

(A 'Newton's Cradle' is a meet and transfer of patient care between 2 or more paramedic or EMR teams while conveying a patient over a long distance.)

A patient in ACP care can be transferred to PCP care if that patient is not anticipated to require any ACP interventions or assessments for the remainder of the trip. If an ACP-level intervention has been performed, PCPs are able to accept the patient provided the following criteria have been satisfied:

- The required level of care falls within the PCP scope of practice
- The patient's vital signs are within normal limits
- It has been a minimum of 15 minutes since an ACP intervention has been performed

Similarly, patients in PCP care may be transferred to EMR care, provided the patient's required care falls within the EMR scope of practice.

Transfer of Care

A patient in ACP care may be transferred to a PCP crew provided:

- The patient's vital signs are within normal limits
- The patient is not anticipated to require any further ACP interventions en route
- It has been a minimum of 15 minutes since an ACP intervention has been performed
- The transfer takes place in accordance with CPG AXXX: Transfer of Care

Transfer of care should not delay conveyance. In most situations, ACPs should convey patients to hospital when PCP crews are not readily available. CliniCall should be consulted in other extenuating circumstances when transfer of care is required.

Section 3: Consolidation of Patient Care at Hospital

When directed to do so by their unit chief, supervisor, manager, or local service standards, paramedic crews will consolidate patient care in a hospital or other health facility immediately following triage. Paramedics will manage care for up to 3 patients, or as directed. Of the 3 patients being cared for, no more than 1 patient may:

- Require cardiac monitoring
- Be hemodynamically unstable
- Require cervical spine precautions or spinal motion restriction
- Exhibit a Glasgow Coma Score < 13
- Be uncooperative, non-compliant, or aggressive

Multiple pediatric patients will not have their care consolidated.

Paramedics may determine that consolidation of care is inappropriate if the patient requires one or more of the following:

- The patient has been designated as requiring infection control or isolation precautions
- The patient is violent or requires the use of restraints

Except where the needs of the patient dictate otherwise, paramedics will consolidate care from ACP providers to PCP. Paramedics providing consolidated patient care will notify their dispatcher or supervisor if they are unlikely to be clear of the facility within 30 minutes following transfer of care. Where possible, patients will be transferred to a hospital stretcher, with side rails raised. If circumstances dictate that patients must remain on ambulance stretchers, paramedics should lower the stretcher to a medium height and secure the patient using shoulder, chest, and leg straps.

Patients will be monitored in accordance with the standards in Table 1. Paramedics providing consolidated care in health care facilities will do so in collaboration with the facility staff and will provide hourly updates on the condition of patients in their care. Significant changes in the status of a patient – such as alterations in vital signs, the progression of symptoms, or the patient attempting to leave the hospital prior to being assigned a bed – will be reported to facility staff immediately.

It is expected that paramedics will assist the patient and provide personal care as required.

Table 1. Monitoring standards for patients in consolidated care

Vital Signs q15 Minutes		Vital Signs q30 Minutes
Altered Vital Signs	*Complaints or Symptoms*	
• Heart rate <50 or >110/minute • Blood pressure < 90 mmHg • SpO_2 < 90% despite supplemental oxygen • Respiratory rate < 10 or > 24/minute • GCS < 13 • Temperature < 35°C or > 38°C	• Chest pain (resolved or ongoing) • ECG with ischemic or unstable changes • Shortness of breath • Altered mental status • Uncooperative / non-compliant or aggressive • Abdominal pain despite analgesia • Spinal motion restriction in place • Major trauma	• All other patients • NB: patients whose blood glucose level <4 mmol/L or >12 mmol/L will have their glucose levels reassessed hourly

In the event that paramedics are required to return to their communities for operational reasons, they will inform the triage nurse or BCEHS supervisor so that arrangements for the transfer of care can be made.

Upon transfer of patient care to another health care provider, BCEHS paramedics will provide a comprehensive verbal report using a clinical handover tool, such as SBAR or IMIST AMBO, as described in A03: Clinical Handover.

Section 4: Assessment and Care of Patients in Custody

The assessment and management of patients in custody requires a comprehensive approach. In conjunction with both A01: Clinical Approach and A02: Patient Assessment CPGs, paramedics and EMRs should use the following criteria when providing care for patients in custody:

- When visual limitations (such as a spit hood, restraints, or clothing) present a barrier to a comprehensive physical assessment, paramedics and EMRs should remove these items as necessary to complete an assessment, provided it is safe to do so.
- A person in custody who exhibits extreme intoxication, and who presents sufficient concern to warrant regular reassessment by paramedics or EMRs, should be conveyed at the time of first assessment.
- Individuals who are unable to safely walk or stand without assistance should not be left in custody.
- Law enforcement officers in British Columbia may use pepper spray (oleoresin capsicum, or OC), a less-than-lethal force option. OC is an aerosol lachrymatory agent that irritates the eyes and upper respiratory tract causing pain, lacrimation, temporary blindness, coughing, and difficulty breathing. The effects of OC cannot be completely neutralized, though they can be minimized.
  - Paramedics or EMRs must decontaminate patients in a well-ventilated area while wearing adequate personal protective equipment to avoid becoming affected
  - To decontaminate the patient, remove any contaminated clothing and flush with large quantities of water (or normal saline) for at least 20 minutes
  - Wash using soap and water; baby shampoo is ideal for this
  - Provide supportive care, and treat any conditions concurrently
- Conducted energy weapons (CEW), or Tasers, are a less-than-lethal force option used by British Columbia law enforcement. These devices fire two darts that embed in the body and deliver an electrical stimulus that interferes with the body's nervous system, inducing a forced contraction in the skeletal muscle, and causing the target to temporarily lose control of their muscles.
  - Patients who have been exposed to CEWs must be monitored for a minimum of 15 minutes after employment
  - A 12-lead ECG should be obtained if possible
  - Darts should be removed from the patient, unless they are embedded in the genitalia, neck, face, eyes, ears, oropharynx, scalp, or areas with significant superficial vasculature (e.g., antecubital fossa, or the femoral or popliteal areas)
  - To remove, confirm that the CEW has been turned off and cut the wire at the base of each dart; pull perpendicularly in a quick fashion on each dart and dispose of the darts in a sharps container
  - Clean dart wounds with alcohol swabs and apply a dressing as required
  - If the patient's tetanus status is unknown, or their date of last vaccination is over 10 years in the past, inform the law enforcement officers that a tetanus booster will be required within 72 hours

Paramedics and EMRs should approach all patients in custody with an intention to convey with a law enforcement escort. Patients in custody have the legal right to refuse medical treatment, however they do not have the ability to refuse conveyance to hospital.

- Occasionally, there may be controversy over whether a patient in custody requires conveyance to hospital. Police may solicit opinions from paramedics and EMRs as to the necessity of conveyance. In these cases, paramedics and EMRs should be inclined to convey, with special attention if:
  - The patient is pregnant
  - The patient has any of the following:
    - Chest pain or palpitations
    - Headache
    - Vomiting
    - Presyncope
    - Incontinence

- Shortness of breath
- Persistent confusion or combativeness
- An injury, psychiatric disorder, or medical condition requiring immediate attention
- A significant mechanism of injury meeting the definition of major trauma by mechanism alone
- An inability to walk or stand safely without assistance
- Heart rate < 60 or > 110 beats per minute
- A systolic blood pressure < 100 mmHg or > 180 mmHg
- A respiratory rate < 12 or > 24 breaths per minute
- Oxygen saturations < 94% on room air
- Blood glucose < 4.0 mmol/L or > 10.0 mmol/L
- Temperature > 38°C

Paramedics or EMRs may otherwise leave patients in the custody of police after at least 15 minutes of observation. In these cases, paramedics or EMRs must consult with CliniCall prior to leaving the scene.

Patients in the custody of law enforcement may be restrained with handcuffs and/or additional restraints. If conveyance is required, a law enforcement officer with the ability to remove and control the restraints must be present in the ambulance. Consult with CliniCall with respect to treatment and conveyance decisions of restrained patients as necessary.

- Warning: Do not convey restrained positions in the prone position, due to the risk of positional asphyxia.

Law enforcement officers may deploy other less than lethal weapons to distract or temporarily incapacitate individuals, including stinger balls, rubber bullets, and beanbag rounds. These may result in blunt or penetrating trauma. Flashbangs, concussion grenades, and flash diversionary-incendiary devices may result in temporary loss of vision or hearing, and inhalation or flash burns. Treat injuries caused by these weapons in accordance with the appropriate guideline.

Section 5: Refusal of Care

Adults over the age of 18 years, mature minors, parents or legal representatives of minors, and legal representatives or guardians of adults, may refuse care or conveyance from BCEHS.

An adult patient is presumed to be capable of making decisions, unless there is evidence to the contrary. Paramedics and EMRs are required, in every case, to satisfy themselves that the patient has the requisite capacity to make decisions, understands the risks, benefits, and alternatives to their decisions, and is not unduly influenced by third parties.

Patients are presumed to lack capacity if their actions demonstrate they present a danger to themselves or others.

- A lack of capacity may be short-term; it may be related to:
  - A mental disorder
  - Intoxication by alcohol or drugs
  - Disability from acute illness or injury
  - The likelihood the patient will harm themselves or others
  - The inability to answer orienting questions (e.g., "what is your name?", "where are you right now?", "what day is it?")

Paramedics and EMRs must not intentionally encourage or otherwise coerce patients to refuse care or conveyance. Patients have a right to access the care provided in hospital or other recognized resources available through ambulance conveyance.

Paramedics and EMRs are responsible for providing the patient with an opportunity to ask questions, and to provide answers that are understandable. The patient must be given the opportunity to accept or refuse care or conveyance, without fear, constraint, compulsion, or duress.

- In caring for patients who refuse care or conveyance, paramedics and EMRs will:
  - Attempt to perform as comprehensive an assessment as possible, provided the patient consents
  - Explain the benefits of receiving care or agreeing to conveyance
  - Explain the risks of refusing care or conveyance

    - Discuss alternative options available, including timely follow-up with a physician or health care provider, self-conveyance to hospital, or another call to 911 if conditions recur or worsen
- Paramedics and EMRs will consult with CliniCall where patients have:
    - A history of significant submersion injury
    - Recovered from a partial or complete foreign body airway obstruction
    - Experienced an apparent life-threatening event or a brief, resolved unexplained event
    - Complained of:
        - Chest pain
        - Shortness of breath
        - Abdominal pain
        - Headache
        - Fever > 38°C, either at present or within the last 24 hours
        - Heart rate < 50 or > 115 beats per minute
        - Respiratory rate < 6 or > 30 per minute
        - Oxygen saturation < 90% on room air
    - CliniCall must also be consulted when the patient:
        - Has an abnormal 12-lead ECG
        - Has experienced a significant traumatic injury
        - Is a child or is over the age of 70
        - Is pregnant
        - Is intoxicated by drugs or alcohol
        - Has had a recent hospital visit for a similar concern
    - Paramedics and EMRs must document the clinical assessment conducted and the discussion of risks and alternatives with the patient in the patient care record; the 'Response Outcome' field of the patient care record must indicate "Patient Refused Care and/or Conveyance"
    - Paramedics and EMRs who are caring for patients refusing care or conveyance against advice may contact CliniCall for further consultation and advice; law enforcement may be involved in these cases, and care should be provided based on collaboration with other agencies or providers

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A05: Mass Casualty Incidents

Tim Makrides
Reviewed: December 2, 2020

Introduction

A mass casualty incident, or multi-casualty incident (MCI), exists when the initial response becomes overwhelmed. This occurs when the number of casualties exceeds the capacity of the initial resources, preventing effective management and conveyance. The successful management of a MCI requires the effective use of resources to create a balance between the available supply of responders, equipment, and assets to that of the MCI.

Experience has shown that in the event of a MCI, patient care is optimized if crews follow a pre-arranged plan. Scene management should include consideration of various factors including safety, site assessment, liaison, command, communications, triage, treatment, and conveyance.

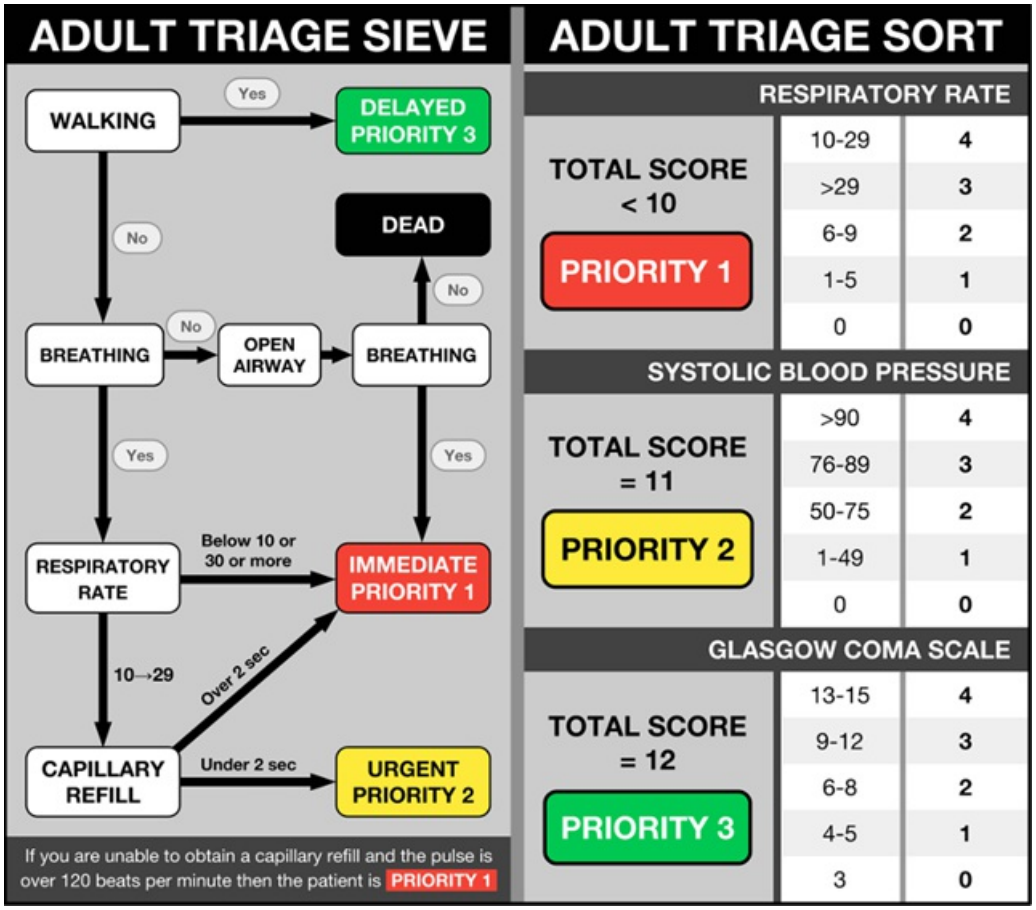
Where practical, the first unit on scene should adopt the command and triage responsibilities while also ensuring pertinent information is provided to the dispatch centre and that appropriate resources are distributed as required. The initial scene commander and triage officer are responsible for their tasks until relieved by senior clinicians or supervisors.

The responsibilities for the first arriving crew can be divided as follows:

- Driver: The scene commander in urban and metro environments provides an initial windscreen situation report and collects information necessary for the METHANE report. The scene commander is the contact between the scene and the communication centre.

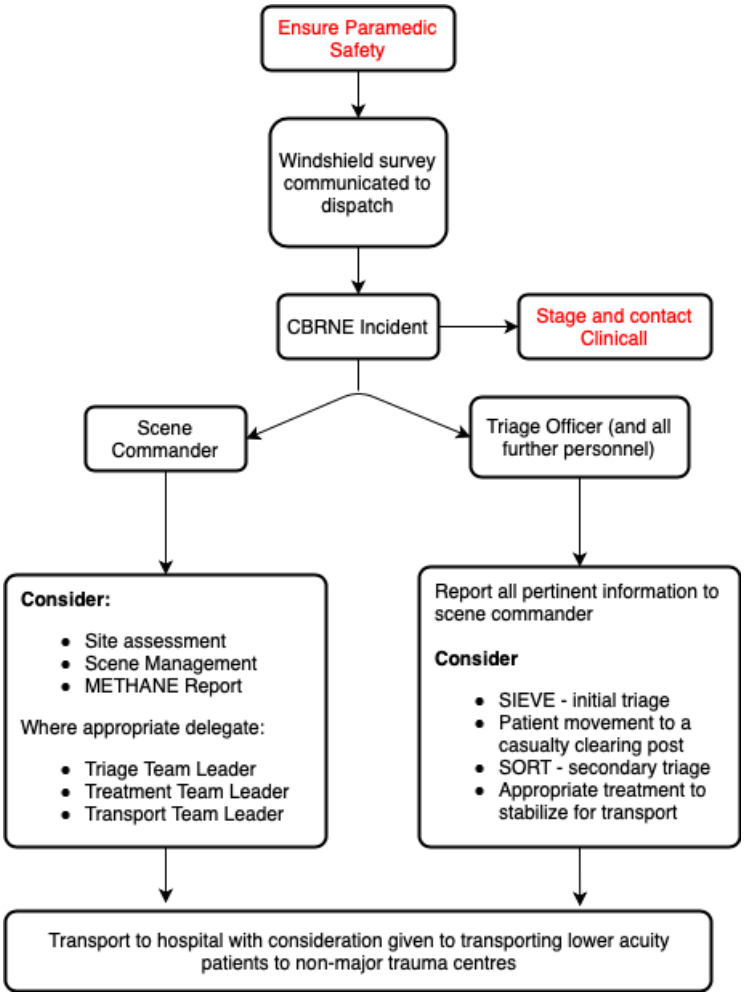
The Prometheus IMT app can help with developing a METHANE report: iOS | Android

- Attendant: The triage officer uses the 'Sieve Triage Process' to facilitate the prioritization of treatment and patient movement from the incident area to the casualty clearing post. A count of patients and their triage priorities are reported back to the scene commander.



During the Sieve Triage Process, a tag is provided to each patient with the relevant priority colour. Patients are then moved from the incident area to the casualty clearing post where patients are assigned to various areas according to their triage priority.

At the casualty clearing post, a secondary triage assessment will reassess the casualty's priority status. This is referred to as the 'Sort Triage Process' and assesses the patient's GCS, respiratory rate, and systolic blood pressure to arrive at a score corresponding to a priority level. Conveyance can begin once enough resources are on scene to manage casualties. Patients are then conveyed from the scene ensuring the right patient is conveyed using the right clinical pathway in the right time frame.


Ensure Paramedic Safety
Windshield survey communicated to dispatch
CBRNE Incident
Stage and contact Clinicall
Scene Commander
Triage Officer (and all further personnel)
Consider:
Site assessment
Scene Management
METHANE Report
Where appropriate delegate:
Triage Team Leader
Treatment Team Leader
Transport Team Leader
Report all pertinent information to scene commander
Consider
SIEVE - initial triage
Patient movement to a casualty clearing post
SORT - secondary triage
Appropriate treatment to stabilize for transport
Transport to hospital with consideration given to transporting lower acuity patients to non-major trauma centres

A06: Documentation Standards

Jennie Helmer
Reviewed: December 2, 2020

Introduction

All BCEHS employees providing out-of-hospital care in British Columbia are required to complete an electronic patient care record (ePCR) for every patient encounter. This document is an important part of the patient's journey. It is the duty of every BCEHS employee to complete patient documentation in a timely, conscientious, and thorough manner. Documentation duties also include recording relevant patient details, findings, management plans, and outcomes in a manner that is clear and understandable to other health care providers. In this context, 'documentation' may also refer to material or data produced outside of the ePCR, including monitor, defibrillator reports, and downloads.

Only one ePCR per patient is provided to the receiving facility. Generally, the most qualified paramedic, or EMR, involved in the patient's care will be responsible for completing the ePCR, and in most cases, this duty will fall to the attending paramedic or EMR. In some circumstances, additional highly trained paramedics will assist in the conveyance of a patient; in this case, the paramedic with the higher level of qualification may contribute content to the ePCR that accompanies the patient.

In cases where care is delegated to lower levels of paramedic or EMR care, the higher qualified paramedic must still complete a separate ePCR documenting their assessment and decisions.

Essentials

- An ePCR must be completed for each request for service, regardless of whether an assessment is conducted, care is provided, or the patient is conveyed by ambulance.
- The ePCR must be completed as soon as possible, no later than the end of the scheduled shift or work assignment during which the call occurred.
- The ePCR documentation must be accurate, legible, and complete.
- In situations where more than one patient is assessed, an ePCR must be completed for each patient.
- Ensure all data entered on the ePCR is correct prior to finalizing the completed form; errors or omissions identified after finalization will require paramedics or EMRs to document the correction in a clearly identified addendum through their unit chiefs or designated supervisors.

General

- The ePCR software contains a number of data collection features that should be used as designed.
- Where an option exists to capture information through a built-in function of the software (e.g., advanced airway data), paramedics and EMRs must use these tools and not rely on free text entry options to record data. This is particularly important when systems of care are involved or where procedures are being performed as the information gathered informs BCEHS practice.
- Corrections to finalized ePCRs must be done through a paramedic or EMR's unit chief or designate.
- Data acquired from cardiac monitors, including cardiac arrest records and 12-lead ECGs, must be downloaded into the ePCR software and attached to the patient care record. This material must also be sent to the Cardiac Arrest and Major Trauma registry when required.
- Automated external defibrillator (AED) case records must be downloaded to the Cardiac Arrest and Major Trauma registry as soon as practical. Instructions for downloading are available.
- When an intervention or treatment has been performed, paramedics and EMRs must ensure that an outcome is described, including complications. These complications should be comprehensively documented for research and follow-up purposes.
- Various groups use the information recorded in the ePCR for a variety of purposes, including:
  - Clinical
    - Information about the call history, patient assessment findings, patient care provided, and the response to treatment, is important to receiving facilities and referral teams to support the patient's ongoing care.
  - Administrative

        - Statistics can assist in maintaining effective paramedic and EMR services and provide valuable information for future planning.
    - Research
        - ePCR information can be used to help answer quality assurance and research oriented questions, which will contribute to future advances in out-of-hospital care and best practice.
    - Legal and Regulatory
        - The ePCR is a legal document and is part of the patient's medical record.
        - The report must be complete and of a quality suitable for use as evidence in an investigation or legal proceeding.
        - The ePCR may be requested by external organizations including law enforcement, the Coroner's Office, the Ministry of Health, and the patient.

A07: Oxygen Administration

Neal Carman and Mike Sugimoto

Updated: December 18, 2023
Reviewed: December 18, 2023

Introduction

The administration of oxygen is a fundamental component of paramedic and EMR/FR practice. Although routine, thoughtful consideration is required: paramedics and EMRs/FRs must have a comprehensive understanding of a patient's clinical indications for oxygen administration, and must adhere to current best practices while engaged in any therapeutic activity.

Essentials

- The administration of oxygen should be based on an assessment of overall patient need rather than a formulaic application. Respiratory effort, mentation, oxygen saturation, blood pressure, and clinical scenario all play a role in determining whether oxygen should be given.
- In general, paramedics and EMRs should use the lowest oxygen flow rate possible to achieve an SpO_2 of 94%, or for FRs, until symptoms resolve. This may not be possible for patients who have pre-existing conditions, such as chronic obstructive pulmonary disease; in these cases, titrate to maintain the patient's normal oxygen saturation.
- Do not routinely administer oxygen to patients with normal oxygen saturations where a clearly defined clinical need is lacking.

Additional Treatment Information

- The administration of oxygen should follow a staged approach, where simple, non-invasive options are tried before more aggressive (or invasive) options are explored. Nasal cannula are preferable to face masks, while face masks are preferable to bag-valve masks.
- Recall that adequate oxygenation depends not only on the fraction of inspired oxygen but also on the ability of the patient to ventilate, diffuse gases in the alveoli, and transport oxygen in the blood. Patients require sufficient hemoglobin and an adequate blood pressure to oxygenate effectively.
  - → B01: Airway Management
  - → D01: Shock
  - → D02: Bleeding
- Do not withhold oxygen from patients who are significantly short of breath in order to obtain a room air oxygen saturation. Treat symptomatically to start, and then titrate to bring the oxygen saturation into a normal range.
- For FRs, or in the absence of accurate pulse oximetry in a patient with shortness of breath, administer oxygen until symptoms resolve, or accurate measurements can be obtained.

General Information

- Early, aggressive oxygen administration may be beneficial to critically ill and hemodynamically unstable patients, such as those in cardiac arrest or who require resuscitation. In these cases, paramedics and EMRs should aim to achieve an oxygen saturation of 100%. Once the patient is stabilized, oxygen can then be titrated down to an SpO_2 of ≥ 94%.
- Adverse events from hyper-oxygenation do occur, and sustained hyperoxia has been linked to increases in morbidity and mortality.
- Pulse oximetry may be particularly unreliable in patients with peripheral vascular disease, severe asthma, severe anemia, cold extremities or peripherally hypoperfused, severe hypotension and carbon monoxide poisoning. In the absence of reliable oximetry data, in critical illness, oxygen should be administered.
- Oxygen administration via a BVM should provide a tight seal with the BVM using a 2-person technique where possible.

Interventions

First Responder

- Intervene early; do not wait for signs or symptoms of obvious hypoxia to develop, but act on the potential or suspicion of respiratory insufficiency
- Ventilation is as important as oxygenation; do not withhold BVM ventilations to patients who require ventilatory support
- Maintain a tight seal with the BVM using a 2-person technique where possible
- Patients with mild to moderate shortness of breath (e.g., tachypnea, two-to-three word sentences, obvious wheezing, accessory muscle use):
  - Consider nasal cannula at a maximum flow rate of 5 L/min
- Patients with severe shortness of breath **or** suspicion of critical illness (e.g., anaphylaxis, seizures, shock, traumatic injuries):
  - Consider non-rebreather face mask (NRFM) at 10-15 L/min
  - A nasal cannula may be placed under an NRB or BVM when flow rates above 15 L/min are required
  - Assist ventilations with BVM where required

Emergency Medical Responder – All FR interventions, plus:

- Mild-Moderate Hypoxemia (SpO_2 85-89%):
  - Initial dose of 2-5 L/min via nasal cannula
  - consider face mask 5-10 L/min
- Severe hypoxemia (SpO_2 < 85%) or critical illness:
  - Initial dose of 10-15 L/min via non-rebreather face mask (NRFM)
  - Consider BVM ventilation
  - Once stable, titrate oxygenation to 94%
- Chronic hypoxemia (COPD, cystic fibrosis, obesity, neuromuscular disorders)
  - Titrate SPO_2 88-90%
  - High-flow oxygen may be harmful in these patients; do not neglect the need for ventilation
    - → B05: Chronic Obstructive Pulmonary Disease
- Regardless of SpO_2, treat the following illnesses with high-flow oxygen (15 L/min via NRFM):
  - Toxic inhalation, decompression sickness, cord prolapse, postpartum haemorrhage, shoulder dystocia, and cluster headache
    - → J01: Approach to Toxic Exposures
    - → I03: Dive / SCUBA Injuries
    - → L08: Maternity: Delivery Complications

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Practice Updates

- 2023-12-18: Removed COVID-related changes to guideline (target SpO2 in most cases of 94%).

A08: Interfacility Transfers

Rob Evans

Updated: March 09, 2023
Reviewed: March 01, 2021

Introduction

Interfacility transfers (IFT) are common events that can range from prescheduled conveyances of stable patients to complex, multi-leg transfers of critically ill patients. A common framing bias exists, where transfer events are viewed as lower acuity than out of hospital events. In many cases, patients are being transferred to receive a medically necessary intervention that is not provided at the sending facility. In emergent cases, patients are undergoing transfer to receive a critical intervention at the receiving facility and all efforts should be directed towards achieving that goal in a timely fashion.

Essentials

- Careful planning is key to conducting a successful interfacility transfer, particularly in more complex patients.
- Patients must be positively identified using two separate data points (e.g., name, date of birth, personal health number) prior to being transferred between facilities. Verbal acknowledgement from facility staff alone is insufficient to meet this requirement. See BCEHS Standard Operating Procedure OPS 270.1 for additional information.
- Provide care within the scope of practice for the responsible paramedic or EMR crew.
- In some cases, the sending facility will provide escorts if the patient requires interventions that are beyond the scope of practice of the responding paramedic or EMR crew.
- Ensure escorts (if present) are briefed and that all equipment and personnel are safely restrained prior to conveyance.
- Ensure all lines and tubes are secured prior to patient movement.

Additional Treatment Information

- In patients undergoing air conveyance, package the patient on the appropriate lifting device (generally a Ferno #9 stretcher with a cushion).
- Escalate any questions regarding air conveyance or airport rendezvous to the Critical Care Paramedic Advisor via CliniCall (1-833-829-4099).
- Ensure all equipment and patient belongings are secured safely in accordance with current policy.
- Family escorts may be considered on a case by case basis at the discretion of BCEHS.
- Complete documentation is required for all interfacility transfers.

Referral Information

In general, IFT destinations or clinical pathways will be predetermined through consultation with the sending physician and the Patient Transfer Network (PTN). Any concerns relating to appropriate destination or clinical pathway should be escalated through CliniCall.

General Information

- A number of medications that fall outside paramedic or EMR scope may be either discontinued or have infusions completed prior to transfer.
- This chart lists medications and devices approved by paramedic and EMR level according to the EMALB.

Interventions

First Responder

- Not relevant for this guideline

Emergency Medical Responder – All FR interventions, plus:

- Provide care within scope of practice
- CliniCall consultation required prior to conveyance if there are questions regarding patient care or if the patient meets non-medical conveyance criteria.

Critical Care Paramedic – All FR, EMR, PCP, and ACP interventions, plus:

- CliniCall consultation required prior to administration of Schedule 2 interventions in accordance with current BCEHS policy.

A10: Sexual Assault

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Introduction

Responding to a sexual assault call requires survivor-centered, culturally safe, trauma informed care. Paramedics need to address the physical and psychological trauma while ensuring the sexual assault survivor maintains their autonomy. Many survivors experience continued powerlessness, shame and guilt while accessing services due to insensitive treatment by health service workers. However, when treated with care, compassion, clear explanations and choice, survivors experienced positive associations with health care and can feel "humanized". These positive interactions may be viewed as positive social support, which has been proven to diminish psychological impact of stressful life events.

Best practice for paramedics has been largely adapted from research on sexual assault nurse examiner programs with identified positive outcomes, the World Health Organization's guideline, "Responding to Intimate Partner Violence and Sexual Violence Against Women," and the British Columbia Ministry of Health Trauma-Informed Practice Guide.

Essentials

- Use trauma-informed practice as an assessment structure:
  - Trauma awareness
  - Safety and trust
  - Choice, collaboration, and connection.
- Believe the survivor, and tell the survive you believe them. Fear of not being believed is a major barrier for survivors in accessing care and services, which may have long-term physical and psychological consequences.
- Consider the possibility of sexual assault for any patient who describes a possible drugging, or who is found with a decreased level of consciousness in a precarious situation or abnormal environment (e.g., found with an altered level of consciousness in the bathroom of a bar with missing underwear, or waking up in the bushes in a park with no recollection of antecedent events).
- Ask if the survivor would like to share any information, but be clear that this is not required. Re-telling of stories can be re-traumatizing. Best practices for trauma-informed care minimizes and reduces the number of times a survivor needs to recount what happened. Focus on questions related specifically to patient care.
- Manage physical injuries according to license levels. *Always* request consent prior to touching the patient. Assess for traumatic brain injuries, signs of strangulation, and consider the possibility of human trafficking.
- Preserve items (such as clothing) for forensic evidence if the patient consents. Where possible, have the patient remain in their clothing. Do not place clothing on the floor, and do not cut through deformities in clothing, or wipe off contaminants (including dirt).
- Document all injuries. Record any trigger words (i.e., words that create a reaction in the patient such as wincing, shaking, refusing to speak) found during the assessment, as well as any description of the events shared by the patient.
- If a health authority agreement is in place, transport to a sexual assault receiving facility, or a hospital that has the ability to complete a sexual assault forensic examination. If major trauma criteria are met, follow local trauma guidelines as these supersede the need for sexual assault forensics.
- If no health authority agreement is in place, and a sexual assault receiving hospital is within a reasonable distance, ask the survivor about destination preferences (local hospital versus sexual assault receiving hospital). If the survivor consents to be transported to the sexual assault receiving hospital, confirm the transport destination with the on-duty unit chief. If clinical issues exist, consult with CliniCall for destination selection guidance.

Additional Treatment Information

- Obtain consent before each and any physical interactions with the patient. Patient consent can be given for one

interaction but not another, and may be withdrawn at any time.

- External physical injuries may not exist, or may not be apparent. Do not cut and expose clothing unless consent is received, or there is a high suspicion of injury in an unconscious patient.
- Alcohol or drug use is common by perpetrators of sexual assault. (Diphenhydramine and alcohol, gamma hydroxybutyrate (GHB), and rohypnol are examples of substances used.) Paramedics must be aware of drug reactions, and treat these as required.

In cases involving children, the survivor most often knows the perpetrator. Consider the safety of the patient and any other children or vulnerable individuals at the location of the incident. Follow mandatory reporting procedures (Appendix B).

Referral Information

- If the patient refuses to be transported, they should be advised of the location of the sexual assault receiving hospital (or, if more comfortable for the patient, the closest hospital), and options for reporting, including third party reporting. Survivors may be more likely to seek medical attention if accompanied by a support person; this individual can also provide transport in cases of refusal.
- Survivors may be refusing transport because of a fear of a forensic exam. Empower the survivor by reassuring them that they can refuse forensics, and only receive medical care; they are able to change their mind about whether to undergo a forensic exam, or not, at any time.
- If the patient is not being transported, ensure that adequate safety planning has been completed prior to leaving the scene (see appendix C). Refer to VictimLink BC for access to support services.

General Information

Sexual Assault and Consent

Sexual assault is an act of violence. It is defined as any non-consensual sexual contact, as found in the *Criminal Code of Canada*, Section 271. The *Criminal Code of Canada* also notes that consent cannot be given if the individual is intoxicated, drugged, unconscious, asleep, or if they are incapacitated in any way. Consent must freely given, without coercion or threats. Consent can be revoked at any time and can be provided for one act, but not for another.

Trauma Informed Practice and Assessment Structure

Trauma informed practice (TIP) is a framework for understanding the effects of trauma in individuals. It provides physical, emotional, spiritual, and cultural support and safety by giving patients choice and control, allowing them to collaborate in their care planning and treatment. It allows the practitioner to see the patient's reactions as a symptom of a trauma injury, rather than non-compliance or resistance.

Trauma is a psychological and emotional response to a terrible event that overwhelms an individual's ability to cope. Examples include natural disasters, war, major accidents, and rape. One individual's reaction to trauma may be different from another's; some individuals may react expressively, while others may show no reaction at all. Sexual assault survivors may be sobbing and crying, or stoic, or anything in between – there is no "correct" or "right" reaction to trauma.

The re-telling of stories can be re-traumatizing for survivors, causing significant distress. The World Health Organization's guidelines for responding to intimate partner violence, supported by extensive research, includes recommendations to reduce the number of services and providers a survivor has contact to, and where they must recount their story. In taking a clinical history, paramedics with trauma awareness should not press the survivor to tell their story, to exercise patience, and to understand regardless of the survivor's reactions.

Sexual assault survivors

Survivors of sexual assault often experience a range of emotions following their assault. These emotions and feelings vary from individual to individual. Many survivors experience fear, shame, a loss of control, embarrassment, self-doubt, self-blame, grief, and confusion. Helpful words or phrases can include "I believe you," and "this is not your fault." "You are safe now" is also helpful, provided it can be guaranteed that the perpetrator will not have access to the patient.

In the assessment and treatment of sexual assault survivors, cultural safety requires acknowledging and addressing the power imbalances that exist between the practitioner and the patient, the patient and the health care system,

and the patient and society. Cultural safety also requires self-reflection on the part of the practitioner, in an effort to identify and challenge personal biases, conscious and unconscious.

Without safety and trust, the patient may not allow paramedics to come close, or to touch them. Safety and trust can be established by ensuring practitioners introduce themselves, and explain their purpose. Paramedics should adapt their environment to help survivors feel safer. This might involve asking the patient if they would like to change locations for the assessment; it can also involve offering the patient a blanket to keep warm, or for protection from the elements. Paramedics should follow the survivor's lead. To continue developing both safety and trust, paramedics must always clearly explain what they would like to do, and seek consent before performing any exam or intervention.

Offering choice and working collaboratively with survivors enhances feelings of safety and trust. Throughout the assessment process, paramedics should give the patient choice, and provide an opportunity to express their views on the types of treatment they might receive, and how it can be delivered. Some survivors will not want any assessment or treatment, wanting only to be taken to hospital. Paramedics must respect the patient's autonomy over their body, and power over what happens in their care – control over the self was lost during the assault, and returning it can promote more safety and trust between paramedic and patient.

This also extends to the ambulance and transport. Patients must be given choices throughout the call. Paramedics must be aware that telling the patient to lie on the stretcher may trigger a negative reaction (the assailant may have told them something similar). Similarly, words or phrases such as "this will be easier if you let me do this" or "stop fighting," or "you are going to the hospital no matter what" are unhelpful – these take away power and control, and mirror the experience of the assault.

Indigenous Survivors

Indigenous people of all genders have a rate of self-reported sexual assault that is nearly three times higher than non-Indigenous Canadians. Indigenous women with a parent who attended a residential school are 2.35 times more likely to be sexually assaulted compared to Indigenous women whose parents did not. Additionally, Indigenous women are specifically at much higher risk of violence, with self-reported rates of sexual assault that ranges from three times higher in the provinces, and six times higher in the territories, compared to their non-Indigenous counterparts. They are also twelve times more likely to be assaulted and suffer serious injuries.

The legacy of colonialism, racism, systemic and societal discrimination, intergenerational trauma, poverty, the continued impact of residential schooling and the 60s scoop, loss of individual and cultural identity, limited educational opportunities, poverty, isolation, and substance abuse all contribute to violence against Indigenous women, and affect the wellness of Indigenous people, their families, and communities. For Indigenous sexual assault survivors, cultural safety is of the utmost importance. Recognizing how these elements influence the survivor's perception of care and treatment will assist paramedics in developing an approach to these patients.

Introduction to Indigenous Health: https://learninghub.phsa.ca/Courses/16926/introduction-to-indigenous-health

SanYas Indigenous Cultural Safety training: https://learninghub.phsa.ca/Courses/11374/sanyas-indigenous-cultural-safety-training-ics-online

Physical Injuries

Survivors of sexual assault may not have immediate or apparent life-threatening injuries, and may only require minimal medical interventions in addition to emotional support and transportation. Paramedics should be aware of the possibility that survivors may have been drugged, strangles, or suffering from traumatic brain injuries; a high index of suspicion should be maintained when patients are disoriented, have disorganized thoughts, or an inconsistent story – though note that this can also be a trauma stress reaction. Traumatic brain injuries are under-recognized in cases of intimate partner violence; some studies cite the incidence of traumatic brain injury at over 90% of individuals with a history of interpersonal violence.

Signs and symptoms of a traumatic brain injury include headaches, nausea and vomiting, blurred vision, and memory problems. Traumatic brain injuries can produce physical, emotional, behavioural, and intellectual changes in patients. See CPG H04 for additional guidance on the management of traumatic brain injuries.

Patients who have been strangled often have symptoms with a delayed onset that can have sever consequences. Strangulation is a form of asphyxia resulting from external pressure on the neck, occluding blood vessels and the airway. Very little pressure on the jugular veins is needed to produce venous outflow obstruction, which leads to congestion of blood vessels, increased cerebral venous pressure, and elevated intracranial pressure. Stagnant hypoxia and cerebral edema can result. Occlusive pressure on the carotid arteries will result in loss of consciousness within 8 to 10 seconds; the obstruction of oxygen delivery to the brain can produce clots. Pressure

on the carotid sinus can cause bradycardia, which may lead to cardiac arrest. The tracheal cartilage can also be fractured.

Early signs and symptoms of strangulation include:

- Dysphonia (hoarse voice)
- Dysphagia
- Dyspnea, tachypnea, or feelings of an "asthma attack"
- Sore throat
- Neck or jaw pain
- Lighteheadedness
- Loss of consciousness
- Urinary and fecal incontinence
- Injuries to the lips or tongue
- Nausea and vomiting
- Headache
- Seizure
- Changes to hearing or vision
- Swelling in the neck, scratches or red marks under the chin or around the neck
- Petechiae, particularly around eyelids, the eyes, face, scalp, neck, behind ears, or on the soft palate and under tongue
- Scleral hemorrhage or edema

Later signs and symptoms of strangulation:

- Neck swelling or bruising around neck
- Stroke symptoms (ie. paralysis, slurred speech)
- Memory problems
- Ptosis
- Miscarriage

Strangulation assessment tool for first responders: https://www.familyjusticecenter.org/wp-content/uploads/2018/09/Strangulation-Assessment-Card-v10.12.18.pdf

Forensic Evidence and Reporting

Many sexual assault programs collect forensic evidence samples up to seven days post-assault. Some forensic exams can take place beyond those seven days, depending on circumstances. The collection and documentation of forensic evidence requires continued consent from the survivor. A survivor cannot consent to the forensic collection if they are impaired or incapacitated. While at the hospital, the survivor has three options for care:

1. To receive medical care only.
2. To receive medical care with a forensic exam, with the samples stored where possible. Police reporting does not take place, though the survivor may elect to report later.
3. To receive medical care with a forensic exam, with all evidence and documentation reported to the police.

In all cases, the medical needs of the survivor take priority over the forensic examination and collection of evidence.

Survivors also have three options for police involvement in their case. They may or may not choose to report their assault to police, or they may elect for a third-party reporting (TRP) process, which allows the survivor to remain anonymous while still providing information about the assailant to police. Third party reporting is conducted through community-based victim services; as the survivor's identity will be withheld from police, the Crown will not pursue the assailant in these cases. These reports may be made at any time – there is no time limit to reporting sexual assault.

Documentation

The documentation of any call is an important record of a patient's care. In cases of sexual assault, paramedic (and other health care team) records can be requested and used in legal proceedings. Proper documentation can

help the Crown with the laying of charges, and provide valuable evidence at trial.

Paramedics must ensure that notations and records represent objective observations. They should detail the size, location, and type of all injuries (new versus old and healing), any disclosures from the patient, and any "trigger words" and their reactions. Statements made by the survivor must be recorded verbatim.

Human Trafficking

Suvivors of sexual assault may also be victims of human trafficking. Warnings for trafficked patients include:

- Delays in seeking care.
- A person with the patient, often identified as a "friend" or "boyfriend," with controlling behaviour, or who controls the conversation, answers questions for the patient, or acts as the sole interpreter.
- Survivors who change their story of what happened, or who was involved.
- Branding or tattoos on survivors (such as gang symbols or names).
- No BC Services Card or insurance.
- Worries about the cost of care
- Survivors who are uncertain about where they are.
- Individuals who report being homeless, having "just moved," or who are "just visiting."
- Survivors who are not allowed to answer questions.
- Individuals who appear isolated.
- A child or youth who is dressed more provocatively, or who has cash or expensive items that are "gifts" from a friend or boyfriend.

At scenes, be aware of:

- Residences with rooms with multiple mattresses on the floor, or where locks are on the outside of doors.
- Individuals who live in the same place as where they work, sometimes with multiple other people.
- Unsafe or unsuitable living conditions or workplaces.
- Minimal amounts of food considering the total number of residents.
- Children or youth found in hotel rooms.

If human trafficking is suspected, separate the patient from the "friend," "boyfriend," or handler. Move the patient to a safe space, such as the back of the ambulance, and assess using trauma informed practice. Avoid invasive questions; instead, listen to the patient's statements. Many people who are trafficked do not perceive themselves as victims of trafficking. Concentrate on their immediate needs and any health or medical concerns. Transport the patient to hospital without escorts from the scene. If an interpreter is required, use PHSA Language Link, not an on-scene interpreter. Notify the triage nurse of suspicions.

Female Genital Mutilation

Female genital mutilation (FGM) is any procedure that involved the removal or cutting of some, or all, external female genitalia for non-medical purposes. It is practiced in many different cultures and countries, and is usually performed on minors, from infants to girls up to 18 years of age. FGM is internationally recognized as a gender-specific violation of human rights; it can be used to control women and girls' sexuality, or it can be performed due to misinformation about female sexual organs. Regardless of the reason, FGM is fundamentally rooted in gender inequality. Because FGM does not involve sexual contact, it does not qualify as a sexual assault under the *Criminal Code of Canada*; instead, it is considered aggravated assault, under Section 268(3). It is also illegal to send children to another country for the purpose of undergoing an FGM procedure.

The prevalence of FGM in Canada is unknown. The diversity of Canada's population, however, suggests that women and girls from countries where FGM are commonly practiced are living here; some of these women may have already had FGM, and younger girls may be at risk.

Female genital mutilation presents many immediate and long-term physical, psychological, and sexual health issues. Immediate complications include severe pain, hemorrhage, infection, sepsis, shock, and death. Over the longer term, problems include urinary tract infections, child birth complications, menstrual complications, chronic pain, depression, anxiety and low self-esteem.

Interventions

Emergency Medical Responder – All FR interventions, plus:

- Use trauma informed, culturally safe practice throughout patient assessment and management.
- Allow conscious patients autonomy over treatment, position, and disclosure.
- Provide airway management as required.
- Control life-threatening bleeding. For vaginal or anal bleeding, consider use of abdominal pads. Do not throw out gauze or pads used on genitalia – preserve in paper bag (if possible) or wrapped in a blanket or towel for forensic collection.
- Do not clean external wounds unless absolutely necessary; if the patient consents, these may be swabbed for forensic purposes. Covering with dry non-adherent dressings or gauze is acceptable.
- Assess for strangulation injury and traumatic brain injury.
- Assess for signs of human trafficking and sexual exploitation.
- Consider asking patient to defer washroom use until arrival at hospital – urine samples may be collected for forensic purposes.
- Transport to sexual assault receiving or forensic-capable hospital, if available in area. Otherwise, transport to closest hospital.
- Provide notification to hospital to assist in safe placement of patient.
- For pediatrics: notify Ministy of Children and Family Development.
- Document using applicable sexual assault impression code on the ePCR.

Primary Care Paramedic – All FR and EMR interventions, plus:

- Consider pain management:
  - → E08: Pain Management
- Consider vascular access in cases of significant bleeding.
  - → D03: Vascular Access and Fluid Administration
  - Consider tranexamic acid where indicated
  - See also:
    - → D01: Shock
    - → D02: Bleeding

Advanced Care Paramedic – All FR, EMR, and PCP interventions, plus:

Caution: consider sedation only in extreme circumstances (if the patient is a risk to themselves or others). Most sexual assault survivors can be calmed through verbal interactions, the provision of safe spaces, promotion of individual autonomy, and transported without medical sedation. Patients may still be emotionally distraught, but this agitation is rarely physical. Sedation can delay options in care, and inhibits the ability to consent to a medical forensic examination and evidence collection.

References

Appendix A: List of SANE Programs or Forensic Hospitals

Vancouver Island Health Authority

- Campbell River General Hospital
- Cowichan District Hospital (Duncan)
- Lady Minto Hospital (Salt Spring Island)
- Nanaimo Regional Hospital
- Port Hardy Hospital
- Tofino General Hospital
- Victoria General Hospital
- West Coast General Hospital (Port Alberni)
- Oceanside Health Centre (Parksville)

- Comox Valley Hospital (Courtenay)
- South Island sexual assault destination guideline and patient pathway

Vancouver Coastal Health Authority

- Vancouver General Hospital
- BC Children's Hospital
- Vancouver Coastal sexual assault destination guideline and patient pathway

Fraser Health Authority

- Surrey Memorial Hospital
- Abbotsford Regional Hospital

Interior Health Authority

- Kelowna General Hospital
- East Kootenay Regional Hospital (Cranbrook)
- Kootenay Boundary Hospital (Trail)
- Royal Inland Hospital (Kamloops)
- Penticton Regional Hospital
- Queen Victoria Hospital (Revelstoke)
- Vernon Jubilee Hospital

Northern Health Authority

Northwest Facilities

- Northern Haida Gwaii Hospital (Masset-Northen Haida Gwaii)
- Haida Gwaii Medical Centre (Queen Charlotte)
- Stewart Health Centre
- Prince Rupert Regional Hospital
- Mills Memorial Hospital (Terrace)
- Kitimat Hospital & Health Centre
- Wrinch Memorial Hospital (Hazelton)
- Stikine Health Centre (Dease Lake)
- Bulkley Valley District Hospital (Smithers)

Northern Interior Facilities

- Lakes District Hospital & Health Centre (Burns Lake)
- St John Hospital (Vanderhoof)
- Stuart Lake Hospital (Fort St James)
- University Hospital of Northern British Columbia (Prince George)
- GR Baker Hospital (Quesnel)
- Valemount Community Health Centre
- McBride & District Hospital

Northeast Facilities

- Chetwynd General Hospital
- Fort Nelson General Hospital
- Fort St John Hospital
- Dawson Creek Health Unit
- Hudson's Hope Health Centre

Appendix B: Creating a Safety Plan

The purpose of the Safety Plan is to assist the Survivor in being prepared should they decide to leave the potentially unsafe situation they are in. This can be used in situations of known to the Survivor perpetrator of sexual assault, Survivors of intimate partner violence, Survivors of Domestic Violence or any Survivor who fears the perpetrator will come back to their residence.

List Adapted from the Province of British Columbia Ministry of Justice "Creating a Safety Plan" booklet (2015). To see full version, visit: https://www2.gov.bc.ca/assets/gov/law-crime-and-justice/criminal-justice/victims-of-crime/vs-info-for-professionals/training/creating-safety-plan.pdf

- Reassure the Survivor that this is not their fault.
- Encourage the Survivor to develop self-care strategies for their psychological, spiritual and physical wellbeing.
- Ask the Survivor to develop an emergency exit plan, should the perpetrator come through the front door/back door/garage door.
- Ask the Survivor to name people and places they can go that they feel safe and supported. If the Survivor does not have anyone, refer to VictimLink for sources of support and emergency shelters in the area.
- Ensure the Survivor has important cards in their wallet and not stored elsewhere ie. Bank card, credit card, SIN card, driver's license, medical card (and those of their children, if applicable), phone card.
- Ask the Survivor to make photocopies of important documents (ie. Passport, birth certificates, BC ID/ driver's license, Income Assistance documentation, Immigration forms/work permits, etc). Place photocopies in a different place than the originals; hide the originals somewhere safe. Alternatively, scan and email the documents to themselves, as long as the perpetrator does not have access to the Survivor's email.
- Ask the Survivor to prepare a "Go Bag" containing immediate needs in case Survivor needs to leave their home quickly (ie. change of clothes, medications, comfort toy for children, medications, small items of sentimental value).
- If the perpetrator comes back, remind Survivor to call 911 and ask for Police. If the Survivor calls from a landline, the call can be traced so if it is unsafe for the Survivor to speak, 911 can still find the address of the emergency. This is not true for cellphones or satellite phones.

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A11: Care in High Threat Environments

Tim Makrides
Reviewed: December 1, 2020

SAFETY MESSAGE

No BCEHS employee is to intentionally enter a known Hot Zone at ANY time. If one finds themselves within the Hot Zone, they are to immediately find cover and safety, and withdraw to the cold zone as soon as it is safe to do so.

Introduction

A high threat incident is any that involves the potential or actual risk of physical harm to responders as a result of dangers inherent at the scene. This can include the use of firearms or edged weapons, fire, rising floodwaters, or unstable structures to name a few.

While responderss should not knowingly place themselves in areas of high threat, recent events such as the 2014 Ottawa Parliament Hill shooting, 2015 Paris terror attacks, and 2017 London attacks, have shown that first responders may inadvertently find themselves in such a situation. This guideline therefore sets out considerations for safety and clinical care in high threat incidents.

Types of Threats

Threats generally come in two forms, man-made and naturally occurring.

Man-made threats: the Active Armed Offender

The term 'active shooter' makes a direct reference to the use of a firearm or firearms, but an incident may also involve any weapon type such as bladed weapons, explosive devices, and any improvised object capable of inflicting serious injury or death, including vehicle borne intrusions. This is why the term Active Armed Offender (AAO) has been adopted.

These attacks are aimed at people rather than infrastructure and against relatively soft targets. They can occur with little or no planning, intelligence, or forewarning.

While the term 'extremist' is very topical at this time, particularly in the media, it is important to realize that not all AAO incidents are motivated by extremism or perpetrated by religious or ideologically-focused individuals. An AAO incident can also include an individual with a serious fixation and/or a serious mental health issue, motivated by hatred or revenge, or involve criminal intent.

Hybrid Targeted Violence Incident

A Hybrid Targeted Violence Incident (HTVO) refers to the intentional use of force to cause physical injury or death to a specifically identified population using multifaceted conventional weapons and tactics.

This may involve a criminal act, such as the 2017 Bourke Street Mall incident in Melbourne, through to a terrorist incident such as the complex, coordinated 2008 Mumbai attacks.

Naturally Occurring Threats

This could include wildfires where a fire is imminently approaching, rising flood waters or flash floods, avalanches or landslides, earthquakes, or tsunamis.

What is the Current Terrorism Threat Profile in Canada?

'Canada's National Terrorism Threat Levels' is a tool that government officials, including law enforcement agencies, may use to identify risks and vulnerabilities from threats, and in turn, determine what responses may be needed across government to prevent or mitigate a violent act of terrorism in Canada.

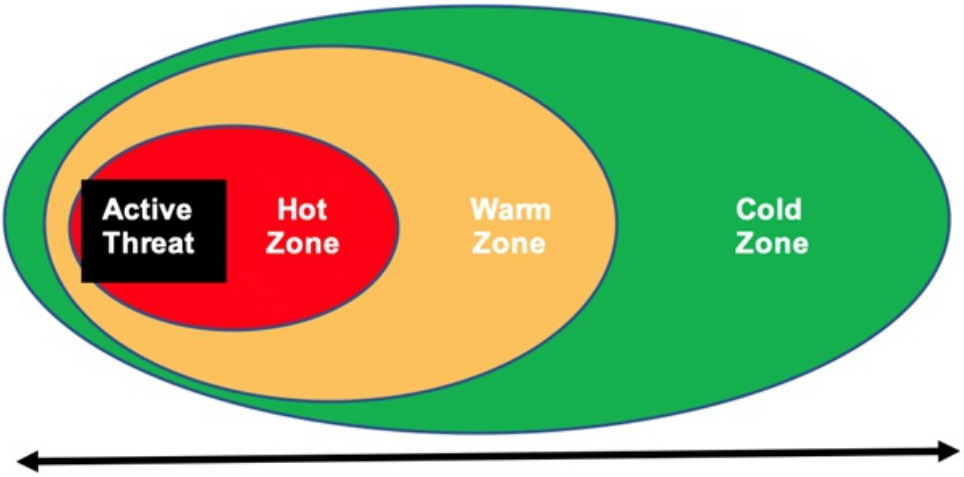
The current threat level can be reviewed here.

What is Tactical Emergency Casualty Care?

Tactical Emergency Casualty Care (TECC) is a set of best practice treatment guidelines for trauma care in the high threat out-of-hospital environment. These guidelines are built upon critical medical lessons learned by military forces over the past 15 years of conflict. They are appropriately modified to address the specific needs of civilian populations (e.g., anticoagulated patients, extremes of age, etc.) as well as injury patterns typically seen in traumatic incidents and adapt these principles to civilian paramedic practice.

At the core of TECC are three distinct zones of care:

- **Hot Zone (Active Threat)** – a dynamic area of operations where there is an active threat of harm (safety risk to patients, bystanders, and emergency response personnel)
- **Warm Zone (Indirect Threat)** – a dynamic area of operations where a potential threat exists, however the threat is no longer considered direct or immediate
- **Cold Zone (No Threat / Area Secure)** – an area of operations where there is no threat present and the scene is considered to be an area of absolute safety



Direction of Threat

It is important to remember that the direction of the threat is dynamic and can change at any time. This is especially relevant in wildfire and terrorism related incidents.

No BCEHS responder is to intentionally enter a known Hot Zone at any time. If a responder finds themselves within a Hot Zone, they are to immediately find cover or safety, and to withdraw to a Cold Zone as soon at it is safe to do so.

Clinical Management of Patients Based on Threat Level

The clinical management of patients and role of all responders is strictly dependant on zones of care. TECC focuses on the treatment during these phases of care and provides guidelines for managing trauma in the civilian tactical or hazardous environment.

Direct Threat Care / Hot Zone Care

- Find cover or safety
- Rapidly apply hemorrhage control with direct pressure or tourniquet
- Beyond consideration of tourniquet application and rolling unconscious patients into the recovery position, no further clinical care should be undertaken while the threat is still present

Indirect Threat Care / Warm Zone Care

- Maintain awareness of potential threat at all times
- Conduct primary survey (C-A-B) with an emphasis on:
  - C: Control external catastrophic hemorrhage with arterial tourniquet or direct pressure
  - A: Consider basic positioning to maintain patent airway, consider OPA/NPA
  - B: Consider chest seal, or bilateral chest decompression (ALS/CCP Only)
- Establish casualty collection point if required

Evacuation / Cold Zone Care

- Consider other clinical interventions as required
- Consider management for hyperthermia
- Management as per authorized clinical practice guidelines relevant to the patient condition

Transport to hospital with pre-notification as appropriate

A13: Patient Care Planning for Handover

Jon Deakin, Mike Sugimoto, and Leon Baranowski
Reviewed: March 1, 2021

Introduction

Patient handover often presents as the most critical time in a patient's care journey. At these events, the responsibility for overall patient management and care planning rests with the holder of the highest license level, or most qualified attendant, at the scene. This individual is generally referred to as the most responsible paramedic (MRP), or if an MRP is not on scene, an EMR or FR.

The MRP or EMR/FR is responsible for the development of an appropriate care plan for the patient based upon findings from appropriate investigations and assessments. Where possible, care plans should be developed in collaboration with those who may be receiving handover of the patient. Considerations should include the care required and the scope of practice of the receiving paramedic or EMR. This guideline is intended to provide clarity and advice to paramedics and EMRs/FRs where handover of care may occur.

Essentials

- All patients require deliberately created care plans. A care plan may be as simple as conveying to the hospital with ongoing monitoring, but can also be considerably more complex.
- When considering whether a patient can be handed over to other paramedics or EMRs, the MRP or EMR must consider:
  - The current or future need for interventions.
  - The projected clinical course of the patient.
  - The ability of other providers to provide the care required following delegation.
- Implementation of the care plan is a collaborative process between the MRP or EMR/FR and other paramedics and/or EMRs/FRs at the scene. Delegation of care may only take place with the consent and agreement of the paramedic or EMR assuming care of the patient. The MRP or EMR/FR must provide a complete handover to the receiving paramedic or EMR, discuss ongoing care requirements, and clinical pathway when appropriate. Crews are not obligated to assume care of a patient if they are uncomfortable with the required care or when the care exceeds their scope of practice.
- The MRP or EMR/FR must document their assessment and decisions in the electronic patient care record (or similar), including information regarding the developed care plan. This information must be handed over to the crew accepting the delegated care plan, and the MRP or EMR/FR must ensure the crew understands all relevant elements of the clinical scenario.

General

In general, the MRP may elect to handover care to another paramedic or EMR crew on the basis of three interdependent elements:

1. **Current or future need for interventions.**
   - Ongoing therapies that are limited by scope of practice may not be delegated.
   - Single-dose therapies, such as analgesia for musculoskeletal injuries, or anticholinergic therapy for bronchospasm, that successfully address the patient's needs may be handed over once they have been completely administered, and the MRP is satisfied they are unlikely to produce adverse effects. The MRP must ensure that a reasonable time period has passed following administration of any medication to observe for adverse effects.
   - The MRP remains responsible for the implementation of the care plan for non-therapeutic reasons, including interpersonal dynamics with patients, a perceived need for advocacy, a complex clinical presentation, or a need to conduct ongoing patient assessment.
   - Regardless of the patient's current clinical status, the MRP should not handover care of patients where the provisionally diagnosed condition would generally benefit from their ongoing attendance.
2. **Projected clinical course**
   - Handover should not occur for patients whose clinical condition or associated risks can be reasonably expected to deteriorate at scene or during conveyance.
   - The MRP must not handover patients who can be reasonably expected to require their ongoing attendance

during their conveyance time. In this case, "conveyance time" can be defined as the total time between departure from the scene and the transfer of care to hospital staff.

- The MRP must consider the ability of the other paramedic or EMR crew to utilize established clinical pathways when indicated. Patients who meet the criteria for entry into a specific clinical pathway may require and benefit from the MRP attendance to safely bypass facilities.

3. **Identification of providers able to provide appropriate care.**
   - The MRP must not handover a patient to a paramedic or EMR who is uncomfortable with the patient's presentation or condition, or who is not able to provide the required care, monitoring, advocacy, or who cannot communicate the pertinent clinical findings to the receiving facility.
   - Prior to handing over care, the MRP must be satisfied the receiving paramedic or EMR understands the clinical scenario, the elements of the patient's care plan, and has the ability to manage the patient appropriately.
   - Paramedic or EMR crews uncomfortable with receiving handover of the patient must inform the MRP. Resolution of this discomfort is left to the discretion of the MRP and paramedic or EMR crews, however, this resolution must not delay or impact patient care.
   - Under no circumstances will the MRP attempt to coerce or intimidate a paramedic or EMR crew into accepting a patient.

When concerns arise involving patient care, crews are encouraged to submit a **PSLS** so that the event can be reviewed and appropriate measures can be taken to mitigate any further events.