Helicopter Utilization Review

The paramedic will be able to:
- list the operational and clinical criteria for on-scene helicopter response
- summarize the application of the Helicopter On-Scene Guidelines.
Contents

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Criteria for Helicopter Response

- During scene and patient assessments, paramedics will identify if there are the operational and clinical guidelines that could result in requesting a scene response by a helicopter.

- Paramedics will provide the ambulance communications officer with the operational and clinical guideline that they have identified, along with the estimated time to package, extricate and transport to the closest appropriate hospital.

- If the patient cannot be easily reached by land ambulance (e.g. difficult land access to ravines/valleys, large parks/conservation areas, snow covered fields, sites without road access etc.) the paramedics will request a scene response by the helicopter whether or not the clinical guidelines are met.
Requests for on-scene helicopter response should meet:

• At least ONE operational guideline

PLUS

• At least ONE clinical guideline

OR

• However if in the judgement of the paramedic or ambulance communications officer a helicopter response is appropriate under the circumstances, even though the operational and/or clinical guidelines have not been met, a helicopter response should be requested
Criteria for Helicopter Response

- Paramedics will not delay patient transport by waiting for the helicopter unless helicopter can be seen on its final approach.

- If the helicopter is enroute but not on final approach the land ambulance will proceed to the closest hospital with an emergency department.

- The helicopter will proceed to this closest hospital and, if appropriate, assist hospital personnel in packaging the patient, conducting a modified on-scene to the most appropriate hospital/trauma centre.

- If the call’s circumstances and the patient(s) fail to meet the guidelines and the helicopter is known to be responding, the paramedic will contact CACC and advise that the helicopter is no longer required and the reason why.
Requests for on-scene helicopter response should meet at least one of the following:

- The land ambulance requires > 30 min to respond to the scene and the helicopter can reach the scene in quicker

- If the land ambulance requires > 30 min to travel from the scene to the closest appropriate hospital* and the helicopter can reach the scene and transport the patient to the closest appropriate hospital* faster than the land ambulance
Operational Guidelines

• The estimated response for both land and air is >30 minutes, but approximately equal, and the patient requires advanced life support care which can not be provided by the responding land ambulance

• There are multiple patients who meet the clinical guidelines and the land ambulance resources are overwhelmed

• judgement – based on the judgement of the medic or communications officer that helicopter response is appropriate under the circumstances, even though the clinical/operation guidelines have not been met
Operational Guidelines

- *Closest appropriate hospital for on-scene call patients assessed as meeting Field Trauma Triage Guidelines is the closest lead Trauma Hospital. On-scene call patients assessed as meeting Field Trauma Triage Guidelines will bypass other hospitals to go to the closest lead trauma hospital if:

  a) The closest lead trauma hospital is < 30 min away by land ambulance, or

  b) The helicopter is available to respond on-scene for direct patient evacuation to the lead trauma hospital
Operational Guidelines

• Paramedics will divert to the closest hospital with an emergency department when, in their judgement, the patient would not survive transport to the nearest Lead Trauma Hospital (e.g. complete airway obstruction, no spontaneous respirations, no palpable carotid pulse)

• The 30 minutes is an approximation that should include extrication time, traffic and road conditions, and other factors that would affect transport time at the time of the call.
Patients meeting any one of the following conditions should be transported to the closest lead trauma hospital:

**Field Trauma Triage Guidelines**
- Spinal cord injury with paraplegia or quadriplegia
- Penetrating injury to head, neck, trunk or groin
- Amputation above wrist or ankle
- **Adult (> 16 yrs)**
  - GCS ≤10 or; if GCS>10, any 2 of the following
  - Any alteration in level of consciousness
  - Pulse rate <50 or >120
  - BP < 80 systolic (or absent radial pulse)
  - Respiratory rate <10 or >24
- **Pediatric (< 16 yrs)**
  - Pediatric Trauma Score ≤ 8
- Paramedic’s judgement based on MOI that a patient has sustained a level of injury requiring lead trauma hospital care
Unknown Clinical Condition or Limited Clinical Detail (injury assumed)

MECHANISM OF INJURY

- Fall from a height > 5 m
- Pedestrian struck by a vehicle (speed > 15km/hr)
- Person ejected from a vehicle (speed > 30km/hr)
- Vehicular collision where speed > 30km/hr or death of co-occupant
- Vehicular rollover with unbelted occupant(s) or death of co-occupant
- Vehicle struck by a fixed object or large animal
Patients meeting any one of the following should be transported to the closest appropriate hospital:

Medical Conditions

• Acute abdomen
• Acute headache (with associated changes in LOC, mental status or neurological deficits)
• Acute respiratory failure or distress
• Chest pain and/or potentially lethal dysrhythmia
• Overdose/poisoning
• Resuscitation
• Status epilepticus
• Unstable airway or partial airway obstruction
Clinical Guidelines

ENVIRONMENTAL

- Decompression sickness
- Electrocution
- Hyperthermia
- Hypothermia
- Major burns
- Near drowning
Clinical Guidelines

OBSTETRICAL

- Abnormal presentation
- Multiple birth
- Pre-eclampsia/eclampsia
- Premature labour
- PROM
- Cord prolapse
- Vaginal bleeding
Clinical Guidelines

- Unknown Clinical Condition or Limited Clinical Detail (injury assumed)

- JUDGEMENT – based on the judgement of the medic or communications officer that helicopter response is appropriate under the circumstances, even though the clinical/operation guidelines have not been met
Other Helicopter Use

- The helicopter will not be permitted to respond to night calls which are not at lit helipads, night approved cone helipads or night licensed airports

- A helicopter will not normally be diverted from a Code 4 response to a scene call unless authorized by ORNGE Communication Centre

- A helicopter may be diverted to a scene response even if it is already assigned to a lower priority call, if the scene response meets the guidelines

- A helicopter will not be permitted to conduct search and rescue calls
Other Helicopter Use

• In cases where the helicopter can respond to the scene quicker than the land ambulance, the land ambulance will be assigned as tiered response and continue to the scene until cancelled by the flight crew

• The crew who arrives to the scene first will be responsible for triage and scene management

• The crew with the highest medically trained personal at the scene will normally be responsible for the patient/medical management

• If both crew arrive at the scene at the same time the crew transporting the patient will be responsible for the patient/medical management
Summary

- Requests for helicopter on-scene should include at least 1 operational and 1 clinical guideline – OR, paramedic judgement
- Clinical guidelines include Trauma Triage, Medical, Environmental, Obstetrical, and Mechanism of Injury conditions
- Do NOT delay on-scene waiting for helicopter arrival unless visualized on final approach
- Air Ambulance Helicopters are not permitted to conduct Search and Rescue calls
References

