



1-800-743-1334

Adult Patient(s) - 16 years and up Indications for AMT Activation

Part One: Non-Trauma

Preamble:

Specific industry guidelines for the air medical transport of medically compromised patients are not available in an evidence-based format at this time. Such criteria are far better developed for trauma (see Trauma Activation Criteria). EHS LifeFlight does offer advanced critical care helicopter transport for severely ill medical patients based upon general criteria in conjunction with definitive Medical Control Physician (MCP) decision making.

Nova Scotia is a province that is ideally suited for air medical transport of the unstable, critically ill patient since 2/3 of the Province's hospitals are greater than 25 km from the nearest fixed-wing runway and the remaining 1/3 are over 100 km away from the nearest landing strip. As well, there are often significant distances to be covered (and changing weather and geographic conditions) by ground ambulances to the nearest regional centre and certain ambulance crews may not have advanced life support skills.

The following general guidelines can be used to determine indications for air medical transport of the unstable, critically ill patient >15 years of age in non-trauma situations. The final decision on transfer by air will be ultimately made by the Medical Control Physician on a case by case basis which will also be predicated upon other factors such as helicopter availability, weather, etc. The mission pilot will make the final flying decision based upon these and other aviation concerns.

General Indications for Air Medical Transport of the Non-Trauma Adult Patient:

1. Any patient that is medically unstable/critically ill where time to definitive care by ground is in excess of AMT time.

2. In any patient in which a delay in timely, advanced medical investigation or intervention could be expected to result in an adverse outcome and ground transport is not available or would result in excessive time.
3. When personnel, equipment or expertise needs of the patient exceed those of the local, sending agency or institution. It is understood that this “resource” category will not apply to Nova Scotia’s regional centres but rather to smaller hospitals whose capabilities would be significantly compromised by a critically ill patient(s).

Please note that the final decision to transport a patient by air will be made by the AMT on-line Medical Control Physician after discussion with the referring physician (for interhospital transports).

Specific Clinical Scenarios That May Warrant AMT:

1. Dissecting/bleeding aortic aneurysm
2. Intracranial bleed (e.g. subarachnoid hemorrhage)
3. Severe hypothermia/hyperthermia
4. Patients in need of emergency cardiac surgery (e.g. ruptured mitral valve)
5. Patients needing mechanical ventilation and/or inotropic support for shock states (such as septic shock)
6. Unstable patient who may warrant investigations not available at referring institution such as angiography for an unstable GI bleed.
7. Severe poisonings.
8. Renal failure (acute) where dialysis is not available at sending institution.
9. Uncontrollable seizure activity (status).
10. Indications for hyperbaric oxygen therapy such as severe carbon monoxide poisoning or decompression illness.
11. Trauma: See specific Trauma Indications for AMT section.
12. Cardiac: See specific Cardiac Indications for AMT section.

These are guidelines only and may not apply to several regional hospitals with more advanced capabilities. Final decision for transfer will occur with Medical Control Physician input.

Contraindications to Air Medical Transport:

1. Patient in full arrest
2. Terminally ill patient
3. Active untreated communicable disease that would put the crew at risk.
4. Uncontrollable, combative patient.
5. Patient of sound mind who refuses transfer.
6. Unstable patient, who requires a procedure (i.e. laparotomy) which could be performed at the sending centre.

7. >Stable patient in whom another means of transport would be more appropriate.

Specific Considerations in Air Medical Transport of Cardiac Patients

Provincial triage of acute cardiac conditions is predicated upon utilization of the district health authorities and appropriate regional hospitals. Thus, for example, an uncomplicated, MI patient who has received appropriate initial treatment in a specific community hospital or health centre will be transported to the nearest regional hospital and not to the Queen Elizabeth Health Centre by Air Medical Transport.

EHS LifeFlight can assist small hospitals and community health centres in transportation of unstable patients to the nearest regional centre if the patient's condition warrants AMT as per the original general criteria for transport. That is, the patient is critically ill and ground transport is unavailable or excessive time is involved, or the resources of the hospital are incapable of transporting the patient.

If a sending physician feels that the cardiac patient is so unstable that tertiary care is indicated (e.g. ruptured mitral valve post MI with cardiogenic shock), then these cases will be reviewed with the on-call Cardiologist at the QEII and Air Medical Transport will be organized by the Medical Control Physician. If there is any concern, in borderline cases, about the patient's condition, then this case will be reviewed by the MCP with the Cardiologist on call. Only then will a transport decision be made.

Acute Cardiac Conditions That May Need Transfer to the QEII

1. Cardiogenic shock
2. Patients with acute MI and contra-indications to thrombolysis who may require primary PTCA.
3. Acute ventricular septal defects or valve dysfunction post-MI.
4. Cardiac tamponade.
5. Acute mechanical valve dysfunction.

Non acute, Urgent Cardiac Cases:

Other cardiac cases may be transferred from Regional Hospitals after initial treatment and stabilization for further definitive tertiary care treatment and/or investigations. These cases may include the following:

1. For priority angiography.
2. Post infarct angina or other complications such as CHF.
3. Medically refractory dysrhythmias.
4. Patients awaiting surgery (CABG) with acute complications such as unstable angina.

Many of these patients can and will be transported by ground ambulance with appropriate staff. At times, pending helicopter and team availability, LifeFlight may be asked to transport some of these patients. Other critical care calls such as trauma must, however, take precedence and thus will involve final decisions by the AMT Medical Control Physician.

Part Two: Trauma

Preamble

EHS LifeFlight is capable of both primary scene responses to serious trauma as well as interfacility transport of trauma patients. Decision to involve LifeFlight is based upon the following listed criteria. If interfacility transport is being considered, the Provincial Trauma Team Leader can be contacted through the number **1-800-743-1334**. Air medical transport can also be arranged using the same number.

Physiologic Criteria:

1. Systolic BP < 90 with hypoperfusion
2. Ventilatory Compromise (RR < 10 or > 29)
3. Glasgow Coma Scale \leq 12 or other evidence or suspicion of, significant head injury.

Anatomic Criteria:

1. Amputation proximal to elbow or knee.
2. 2 or more proximal long bone fractures.
3. Suspected spinal cord injury with neurological deficit.
4. Severe maxillofacial injury with potential airway compromise.
5. Burns (2nd, 3rd, chemical, inhalation) >15% TBSA.

Mechanism Criteria:

1. Gunshot wound proximal to knee or elbow.
2. Significant penetrating wound to head, neck, chest, abdomen, or groin.

Logistical Criteria:

1. Simultaneous arrival or presence of 3 or more multiple-trauma patients and / or local resources are overwhelmed.

Note:

These are guidelines only and any trauma case may be reviewed with the Air Medical Control Physician or Provincial Trauma Team Leader for advice or consideration for Air Medical Transport.