

TITLE

GROUND INTER-FACILITY TRANSFER: NEWTON'S CRADLE

SCOPE

Provincial: Emergency Medical Services

DOCUMENT

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APPROVAL AUTHORITY

Vice President and Chief Operating Officer Clinical
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Senior Provincial Director and Chief Paramedic,
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NOTE: The first appearance of terms in bold in the body of this document (except titles) are defined terms – please refer to the Definitions section.

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OBJECTIVES

- To define the patient populations and situations that are appropriate for safe ground **inter-facility transfer (IFT) newton's cradle** (hereinafter referred to as newton's cradle).
- To provide direction for the safe and efficient movement and clinical documentation of patients when multiple **emergency response vehicle(s)** or **non-ambulance transport (NAT)** vehicles are used for **long distance ground IFT**.
- To enhance system capacity by reducing Emergency Medical Services (EMS) time on task for long distance ground IFTs, time spent away from the home-based district, overtime, and fatigue.
- To provide direction for Alberta Health Services (AHS) **EMS staff**, EMS Operations Supervisors and Managers, and EMS Dispatch, Communications and Deployment Centres on the safe care and transport of patients during a ground newton's cradle.

APPLICABILITY

Compliance with this document is required by all Alberta Health Services employees, members of the medical and midwifery staffs, students, volunteers, and other persons acting on behalf of Alberta Health Services (including contracted service providers as necessary).

ELEMENTS

1. Points of Emphasis

- 1.1 This Procedure for newton's cradle shall only be used in patient transfers that meet all of the inclusion criteria and no exclusion criteria.
- 1.2 Generally, newton's cradle should only be used for **non-urgent IFTs** (e.g., green and blue card types). However, infrequently, if newton's cradle is used for emergent or urgent inter-facility transfers, when possible, the most appropriate **health care professional** (e.g., Air Medical ACP, Registered Nurse, Respiratory Therapist, or Physician) should maintain continuity of care and the on-line medical consultation (OLMC) shall be consulted.
- 1.3 Newton's cradles should be considered as a reasonable mitigation strategy to eliminate or reduce crew fatigue and/or overtime on both legs of the IFT.

2. Inclusion Criteria

- 2.1 When considering a newton's cradle, the long distance ground IFT's total travel time to receiving facility must exceed two (2) hours one (1) way.
- 2.2 The OLMC shall be consulted prior to transferring patients:
 - a) whose primary concern is confusion (e.g., Dementia / Alzheimer's / brain injury patients), or who are easily confused; or
 - b) who are being transferred under the following mental health forms:
 - (i) Form 1: *Admission Certificate* (Alberta). This form is completed by a Physician; and
 - (ii) Form 6: *Memorandum of Transfer to Another Facility* (Alberta). This form is completed by an AHS staff member to which the authority has been delegated by the Board of the sending facility.

3. Exclusion Criteria

- 3.1 Newton's cradle is not appropriate, and shall not be implemented for the following situations and patient populations:
 - a) bariatric patients requiring the use of specialized equipment as per the *AHS Provincial Bariatric Response for Ground and Air Ambulance Policy and Procedure*;
 - b) Neonatal Intensive Care Unit (NICU) patients;
 - c) Pediatric Intensive Care Unit (PICU) patients;
 - d) patients requiring extracorporeal membrane oxygenation (ECMO);

- e) obstetrical patients in active labor;
- f) patients under the Form 10: *Statement of Peace Officer on Apprehension* (Alberta);
- g) patients whose primary concern is confusion (e.g., Dementia / Alzheimer's / brain injury patients), or may easily become confused, without mandatory OLMC consult endorsement;
- h) patients who are currently on isolation precautions; and
- i) events that guide the deployment of the stroke ambulance.

4. EMS Staff Roles and Responsibilities

- 4.1 When the internal emergency communication officer (ECO) coordinates a newton's cradle based on operational need, the following steps shall be included in the process:
 - a) When it is determined that a newton's cradle is the best option for a patient transport, the ECO shall create the event as a newton's cradle (NCTX) transport and notify the respective EMS crews of the NCTX.
 - b) EMS crews, who are providing patient care, inform the patient and attending family members or friends of the NCTX.
- 4.2 EMS staff shall accommodate the needs of the medical escort for each leg of the transfer.

5. Transfer of Care and Information

- 5.1 Patient transition locations shall be determined on a case-by-case basis in consultation with EMS Dispatch, Communication and Deployment, and EMS Operations.
- 5.2 Transfer of care locations shall occur as close to normal routing as possible and in areas that are safe and reasonable. This does not include patient transitions on roadsides. Unsafe conditions includes, but is not limited to, areas with moving traffic, are dimly lit or have no lighting, or have high volumes of public activity.
- 5.3 Transfer of care shall occur:
 - a) only once per transfer leg while enroute between sending and receiving sites;
 - b) between levels of care appropriate to the patient's status, and within 30 minutes following the arrival of all resources involved at the transfer of care sites.

- 5.4 Information transfer shall include the following:
- a) both a verbal report and written documents. Documents may be written or electronic where applicable; and
 - b) a completed electronic patient care report (ePCR) for each transfer of care.
 - (i) When possible, EMS staff shall print or etransfer ePCRs for the receiving EMS staff without delaying transport.

6. Interruption and Re-scheduling of Ground Inter-facility Transfer Newton's Cradle

- 6.1 If a transfer of care cannot take place at the originally scheduled site or with originally scheduled EMS staff, the EMS Operations Supervisor or Manager and the Deployment Manager shall:
- a) arrange a second site and or alternate EMS staff to be used; and
 - b) consider the impact to the transfer time.
 - (i) When the time that is required to exchange the patient would exceed the time to complete the transfer, the transporting EMS staff shall be directed to continue with the patient transport and the newton's cradle cancelled.
- 6.2 Emergency events shall take priority. EMS Staff who have been assigned a newton's cradle may be pre-empted for an emergency response.

7. Billing

- 7.1 As each individual transfer leg requires an ePCR there shall be event numbers associated with these legs that are linked. This will avoid a patient receiving multiple bills.

DEFINITIONS

Emergency Medical Services (EMS) staff means all AHS EMS contracted and direct delivery providers, including casual, part-time employees as well as volunteers of EMS.

Emergency response vehicle means an EMS Vehicle including, but not limited to, ambulances and paramedic response units that are equipped with emergency warning devices and used or intended to be used for providing emergency medical services.

Health care professional means an individual who is a member of a regulated health discipline, as defined by the *Health Disciplines Act* (Alberta) or the *Health Professions Act* (Alberta), and who practises within scope and role.

Inter-facility transfer newton's cradle means a method of accomplishing routine long distance inter-facility transfers (IFTs) where fatigue management and regional coverage are considerations. This is accomplished by using a predetermined, appropriate meeting point where EMS staff can transfer patient care from one crew to another. The receiving EMS staff will then continue on with the patient to the destination, and the originating crew will return to their district. Advanced Life Support (ALS) intercepts are not considered newton's cradle.

Long distance round inter-facility transfer means any IFT where the transporting unit is travelling outside of the community where it is normally located.

Non-ambulance transport (NAT) means a non-ambulance transport vehicle. These vehicles are usually staffed with health care professionals who are registered as an Emergency Medical Responder. For the purposes of this Procedure, NAT vehicles are included in the emergency response vehicle category because they carry patients and medical equipment.

Non-urgent inter-facility transfer means blue and green category transfers as indicated by card 37 Alpha and Bravo determinants.

REFERENCES

- Alberta Health Services Governance Documents:
 - *Provincial Bariatric Response for Ground and Air Ambulance Policy* (EMS-PS-06)
 - *Provincial Bariatric Response for Ground and Air Ambulance Procedure* (EMS-PS-06-01)
- Non-Alberta Health Services Documents:
 - *Admission Certificate* (Form 1) (Alberta)
 - *Memorandum of Transfer to Another Facility* (Form 6) (Alberta).
 - *Police Act* (Alberta)
 - *Statement of Peace Officer on Apprehension* (Form 10) (Alberta)

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