

Non-emergency patient transport

Clinical practice protocols

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Introduction

The Department of Human Services has approved these clinical practice protocols for use by non-emergency patient transport (NEPT) providers for the triage and care of patients during home to hospital transfer, inter-hospital transfer, and hospital to home transfer. In addition, these protocols outline the scope of practice for first aid services at public events by NEPT providers.

These protocols will provide a consistent framework for NEPT provider knowledge, education, and training.

The drug reference material in this manual includes indications for use, contraindications, side effects and dose ranges. If required, more comprehensive information about these drugs is available from other sources.

It is intended that this manual will be updated regularly. To provide feedback regarding these protocols, contact the Manager, Private Hospitals Unit, Department of Human Services, Level 19, 50 Lonsdale Street, Melbourne, 3000.

Data and audits to be provided to the Department of Human Services

Each NEPT provider is expected to have a system of audit in place to identify any variations to routine care. Variations to routine care should be submitted to the department as indicated below.

In addition, patient care records for the following circumstances must be forwarded to the Manager, Private Hospitals Unit, Department of Human Services, for review:

- death of a patient (immediately)
- any case where a patient has suffered cardiac arrest during NEPT care whether or not the patient has a 'not for resuscitation' or 'refusal of treatment' certificate (immediately)
- any transfer of a patient with mechanical circulatory assist device (monthly)
- any adverse event (monthly).

Please forward records to:

**The Manager
Private Hospitals Unit
Department of Human Services,
19/50 Lonsdale St,
Melbourne VIC 3000**

Authority to practice matrix

It is important to note that NEPT employees are authorised to practice at different levels. In particular, the use of protocols identified in this manual requires specific training and are only to be adopted according to the table below. Where a number is indicated please refer to the notes at the end of the matrix for further detail.

Legend:

PTO=Patient Transport Officer, ATA=Ambulance Transport Attendant, AO=Ambulance Officer, RN1=Registered Nurse Division 1, RN1 Critical care qualification, as set out in Regulation 19(f), SAED=Semi-automatic external defibrillator, GTN=Glyceryl trinitrate, IV=Intravenous, PICC=Peripherally inserted central catheter

	PTO	ATA	AO	RN1	RN1 Critical care qualification
Breathing difficulty					
Salbutamol	X	Yes	Yes	Yes	Yes
Oxygen	Yes	Yes	Yes	Yes	Yes
Cardiac arrest					
Manual defibrillation	X	Yes	Yes	Yes	Yes
SAED	Yes	Yes	Yes	Yes	Yes
Cardiac chest pain					
Aspirin	X	Yes	Yes	Yes	Yes
Methoxyfurane	X	Yes	Yes	Yes	Yes
GTN (sub-lingual)	X	Yes	Yes	Yes	Yes
Cardiac monitoring					
Cardiac monitoring	X	Yes	Yes	Yes	Yes
Hypoglycaemia					
Glucose paste	Yes	Yes	Yes	Yes	Yes
Glucagon	X	Yes (1)	Yes (1)	Yes	Yes
Pain relief (fractures)					
Methoxyfurane	X	Yes	Yes	Yes	Yes
Neurological examination					
Glasgow coma scale	X	Yes	Yes	Yes	Yes
Drug administration					
IV crystalloid	X	Yes	Yes	Yes	Yes
GTN infusion	X	Yes	Yes	Yes	Yes

	PTO	ATA	AO	RN1	RN1 Critical care qualification
Heparin infusion	X	Yes	Yes	Yes	Yes
Narcotic infusion IV (2)	X	X	X	Yes	Yes
Narcotic infusion s/ c (3)	Yes	Yes	Yes	Yes	Yes
Antibiotics (4)	X	X	X	Yes	Yes
Vasoactive drugs (5)	X	X	X	X	Yes
Blood products (6)	X	Yes	Yes	Yes	Yes
IV crystalloid with potassium added (7)	X	Yes	Yes	Yes	Yes
Anti-arrhythmic drug infusion (amiodarone or lignocaine)	X	X	X	X	Yes
Other treatments					
Peripherally inserted central catheter	X	Yes	Yes	Yes	Yes
Central venous catheter (8)	X	X	X	Yes	Yes
Intercostal catheter	X	X	X	Yes	Yes
Arterial line	X	X	X	X	Yes
Intra-aortic balloon pump (9)	X	X	X	X	Yes
Total parenteral nutrition via central venous catheter (10)	X	X	X	Yes	Yes
Total parenteral nutrition via PICC (10)	X	Yes	Yes	Yes	Yes
Insulin infusion (11)	X	X	X	Yes	Yes
Chemotherapy infusion (12)	X	Yes	Yes	Yes	Yes
IV cannulation (13)	X	X	X	X	Yes

- (1) Selective authorisation- pre-existing annual competency.
- (2) An intravenous infusion of an analgesic may be maintained during transport provided that:
 - the infusion consists of a narcotic, with or without ketamine
 - the patient has been stabilised on the infusion for at least one hour prior to transport
 - there is a written order (not a photocopy) by a medical practitioner for the infusion, including the amount of drug(s) added to a volume and type of fluid. The infusion dose range must be prescribed and may be adjusted according to patient need. No bolus dose may be given during transport.
- (3) A subcutaneous infusion of an analgesic in a chronic pain or palliative care patient may be maintained during transport by all NEPT staff provided that:
 - the patient has been stabilised on the infusion for at least one hour prior to transport
 - there is no expectation that the NEPT provider will be required to adjust the dose of the drug.
- (4) The administration of an antibiotic is only permissible if:
 - the transport is prolonged and it is not feasible or medically appropriate to administer the antibiotic prior to or following the transport
 - there is a written order (not a photocopy) by a medical practitioner for the dose of the drug, the rate of administration, and the volume and type of diluent (if needed)
 - the antibiotic has been administered within the preceding 24 hours without adverse effect
- (5) The administration of vasoactive drugs (dobutamine, adrenaline, noradrenaline, isoprenaline) is only permissible if:
 - the patient has been stabilised on the infusion for at least one hour prior to transport
 - there is a written order (not a photocopy) by a medical practitioner for the amount of vasoactive drug added to a volume and type of fluid, the range of rate of administration, and the target blood pressure.
- (6) The administration of blood products (packed cells, fresh frozen plasma or platelets) is only permissible if:
 - the indication for packed red cells is chronic anaemia, with no evidence of acute blood loss, or hypotension (<100 mmHg) or tachycardia (>100/min)
 - the patient has been stabilised on the infusion for at least 30 minutes prior to transport
 - there is a written order (not a photocopy) by a medical practitioner for the blood product, and rate of infusion
 - the cross match form is sighted by the NEPT provider, and the ID number of the blood product is noted on the patient care record
 - no new bag of any blood product may be commenced during transport
 - at the conclusion of the infusion, the line may be flushed with normal saline (supplied by the sending hospital) at a rate specified by the sending medical practitioner
 - infusions of colloid (such as albumin or gelatin) must be replaced with crystalloid (without additives) prior to transport.

- (7) A crystalloid infusion containing **added** potassium chloride requires administration via a pump device (note: Hartmanns solution contains potassium, but in physiological concentration, and therefore does not need a pump device).
- (8) There is a risk of air embolism if disconnection of a CVC occurs, therefore a Division 1 RN must supervise a patient with this catheter. A peripherally inserted central catheter (PICC) or femoral vein catheter line has minimal risk of air embolism and may therefore be regarded as a peripheral venous catheter.
- (9) An intra-aortic balloon pump must be supervised by a RN 1 critical care nurse who has current (annual) competency in the make and model of the balloon pump being used. (see also the detail regarding 'patients with mechanical circulatory support' on page 18).
- (10) Total parenteral nutrition is administered either via a central venous catheter or PICC. In either case, the solution must be administered using a pump device. The rate of infusion must not be changed during transport.
- (11) The administration of insulin by infusion is only permissible if:
 - the patient has been stabilised on the infusion for at least one hour prior to transport
 - there is a written order (not a photocopy) by a medical practitioner for the amount of insulin added to a volume and type of fluid and the rate of administration
 - a glucometer (or similar device) is **available at all times** during the transport to enable measurement of blood sugar.
- (12) An infusion of chemotherapy delivered via an ambulatory pump or equivalent, which is low risk of potential complications, may be transported by all staff levels provided there is no expectation of any management of the infusion by NEPT staff. The NEPT vehicle must have a cytotoxic waste spill kit.
- (13) An RN1 with current competency in IV cannulation may replace an existing intravenous cannula that has 'tissued' during transport, if it is judged that this cannot wait until arrival at the sending hospital. No more than two attempts at IV cannulation are permitted.

Scope of practice

Under the legislation that outlines the scope of practice for NEPT, the staffing of the NEPT vehicle depends on patient illness acuity. Patient acuity is defined in the legislation as low, medium or high.

The regulations and these clinical practice protocols detail the staffing required for each of these patient groups and describe suitable patients for NEPT.

Home to hospital or hospital to home

These transfers will be low-acuity patients who have been referred to NEPT by an appropriate health professional as described later in these protocols.

All patients who are transported from home to hospital, home to a health care facility (such as a radiology department or dialysis centre) or health facility to home, must meet the definition of a 'low-acuity patient', with the exception of medium-acuity patients such as home-ventilated patients or 'hospital in the home' patients with IV infusions managed by the patient or a visiting nurse.

Despite appropriate triage at the point of call, patient deterioration may have occurred during the time between referral and arrival of NEPT for home to hospital transfer, and the patient may have become an 'emergency patient'. If any clinical criteria are present on arrival that indicate that the patient should be regarded as an 'emergency patient', then an immediate referral to ambulance communications must be made for advice (by phoning 000). While awaiting arrival of the emergency ambulance, emergency care (where applicable) is to be commenced and maintained by the NEPT crew.

If emergency criteria develop during transport, NEPT must consult with ambulance communications (by phoning 000). In a rural setting, the NEPT staff may be directed by the emergency ambulance service to rendezvous with an emergency ambulance at a designated point.

Notwithstanding the presence of emergency patient criteria, NEPT staff may transport the patient who has been designated as palliative care and not for advanced life support because of pre-existing terminal illness.

Inter-hospital transfer (IHT)

These transfers may be low, medium or high-acuity patients. A patient suitable for NEPT IHT is defined as one in which a medical practitioner has determined that the transfer is not urgent, and that the patient is stable for the duration of the transfer.

If emergency criteria develop during inter-hospital transport, NEPT staff must contact the emergency ambulance service (by phoning 000) and may be directed by the emergency ambulance service to either proceed to the nearest appropriate health service, or rendezvous with an emergency ambulance at a designated point.

Notwithstanding the recommendation of a medical practitioner at a hospital, the following patients must be transferred by emergency ambulance (see also the definition of 'emergency patient' on page 9):

- possible requirement for a lights or sirens transport
- chest pain or acute coronary syndrome being transferred for **urgent** coronary angiography or immediate cardiac surgery

- chest pain due to an acute coronary syndrome where the patient has not been pain-free for two hours
- suspected or diagnosed sub-arachnoid haemorrhage which has not been definitively treated
- suspected or diagnosed acute spinal cord injury.

It is not permissible for NEPT employees to administer any fluids or drugs outside the scope of practice as detailed in this document.

In particular, it is not permissible for registered nurses employed by NEPT providers to carry any drugs, whether supplied by the sending hospital or others, nor to administer any drug or perform any invasive procedure (other than IV cannulation) outside these protocols. If a patient may require administration of a drug during transport outside these protocols (such as atropine, morphine or metoclopramide), then an escort from the sending hospital is required.

A registered nurse or medical practitioner employed by the sending hospital who is escorting the patient may carry and administer any drugs or perform any therapeutic procedures that are within their scope of practice in their sending hospital.

Public event duties

The NEPT provider may provide first aid to any ill or injured person at a public event. In addition, the use of drugs outlined within these clinical practice protocols (such as pain relief) is allowed.

When a patient requires transport, a medical practitioner, who has physically assessed the patient, will determine the most suitable resource for transport. Where a medical practitioner is not in attendance, the NEPT provider will contact the emergency ambulance service (by phoning 000). In the absence of injuries associated with suspected major trauma (see Appendix 2), and if deemed appropriate by an ambulance paramedic in the ambulance service communications centre, the NEPT provider may proceed with the transport.

The current definitions of potential major trauma are provided as Appendix 2 for information. Patients who meet the definition of major trauma must be transported by emergency ambulance to the nearest appropriate receiving facility, as per the Victorian State Trauma System.

Major disasters

In cases where the NEPT provider is in attendance at a major disaster, a NEPT provider may facilitate transport of any patients (including 'emergency patients') to hospital when authorised by the designated ambulance scene commander. A major disaster is defined as a multi-patient incident for which there may be insufficient emergency ambulance resources immediately available to provide transport to hospital.

Definitions of the adult 'emergency patient'

The NEPT regulations refer to patients who may be 'time-critical'. For clarity, the 'time-critical' patient is referred to as the 'emergency patient' in these protocols.

The following symptoms/ signs/ clinical syndromes define an emergency patient who may not be transported by NEPT.

See also paediatric emergency patient on page 51.

Moderate to severe respiratory distress

Respiratory rate > 30 / min, and at least one of the following:

- distressed, anxious or exhausted
- speaks in short phrases or unable to speak
- use of accessory muscles
- inspiratory stridor
- pale or sweaty
- cyanosed
- altered conscious state
- pulse rate < 50 or > 120 / minute.

Note: A patient with mild respiratory distress who is not deteriorating may also be transported by NEPT.

Decreased perfusion

Blood pressure < 100 mmHg systolic. Note: A patient with known chronic (> 24 hours) hypotension who has no other signs of poor perfusion may be transported by NEPT. Also, a patient with acute (< 24 hours) hypotension, which is usual for the patient (such as immediately after renal dialysis), may also be transported by NEPT.

Pulse < 50 or > 120 / min. Note: The patient with known chronic (> 24 hours) bradycardia or tachycardia who has stable blood pressure may be transported by NEPT.

A patient with a temporary pacing wire inserted to treat bradycardia is regarded as potentially unstable and therefore an emergency patient.

Decreased conscious state

GCS < 13 . (Note: A patient with documented chronic (> 24 hours) altered conscious state (due to severe dementia, for example) who has no signs of acute deterioration (GCS changed by > 2 points) may be transported by NEPT.

Chest pain or acute coronary syndrome

Any patient aged over 20 years with chest pain which could be of cardiac cause is regarded as an emergency, unless the pain has completely resolved with the usual medication of the patient.

For inter-hospital transport of a patient with a suspected acute coronary syndrome, the patient must be free of ischaemic chest pain for two hours prior to transport or is otherwise regarded as an emergency patient.

A patient who has failed to reperfuse with thrombolytic therapy and requires immediate transfer for coronary angiography and possible intervention therapy is an emergency patient.

A patient who has undergone coronary angiography and requires transfer for immediate cardiac surgery (for example, because of coronary artery dissection or other immediate life threat) is an emergency patient.

Suspected stroke

Within nine hours of onset is regarded as an emergency patient. (Note: If conscious state is stable and a medical practitioner has evaluated the patient, then they may be transported by NEPT).

Headache

All headaches must be regarded as possible sub-arachnoid haemorrhage. Therefore, unless sub-arachnoid haemorrhage has been ruled out by appropriate investigations or a medical practitioner has made an alternative diagnosis, there is a potential for sudden neurological deterioration, then the patient is regarded as an emergency patient.

Abdominal pain

Acute (< 24 hours) and age over 60 years may be a rupture of an aortic aneurysm, unless this diagnosis has been excluded by a medical practitioner, then the person is regarded as an emergency patient.

Back pain

Acute (< 24 hours) in age over 60 years may be a rupture of an aortic aneurysm, unless this diagnosis has been excluded by a medical practitioner, then the person is regarded as an emergency patient.

Gastro-intestinal bleeding

Haematemesis or rectal bleeding of acute onset (in the last 24 hours) are regarded as emergency patients except when a health professional has evaluated the patient and confirmed that vital signs are stable.

Suspected meningococcal septicaemia

Patients with evidence of septicaemia, with a rash suggestive of this disease, are regarded as emergency patients.

Trauma patients

Patients with criteria for major trauma require transport by emergency ambulance to a major trauma service (see Appendix 2).

However, patients aged over 55 years with a suspected simple fracture of the neck of femur or pelvis following a fall from a standing position is not regarded as major trauma and may be suitable for NEPT.

Patients with pain

Significant pain other than chest pain or headache does not necessarily make the patient an emergency patient. A patient may be transported by NEPT even if the NEPT pain relief protocol is not applicable because:

- awaiting the arrival of an emergency ambulance may delay definitive pain relief available in an emergency department
- providing appropriate analgesia for a patient may also be outside the scope of an ambulance paramedic (such as non-steroidal analgesia therapy for back or joint pain).

Where a health professional has assessed the patient as low-acuity and requested NEPT to a diagnostic or outpatient service (and indicated that the patient may have pain on movement), an ATA qualified staff member must be part of the crew to be dispatched, to enable administration of pain therapy as needed.

Obstetric patients

Patients with vaginal bleeding in the third trimester and patients in labour are regarded as emergency patients.

Low-acuity patients

A low-acuity patient is defined as a patient in whom all the following apply:

1. An assessment has been made by an appropriate health professional that the patient is stable for the duration of the transport. An appropriate health professional for the purposes of these clinical practice protocols is one of the following:
 - a medical practitioner who has knowledge of the patient and has decided that the patient complaint is not urgent
 - a Division 1 registered nurse who has examined the patient
 - an ambulance paramedic in the communications department of an ambulance service who has decided that the patient complaint is not urgent based on a discussion with the patient or a health professional who has seen and examined the patient
 - an ambulance paramedic or registered nurse working for an **ambulance** service telephone referral service who has triaged the patient to NEPT transport according to medically approved triage guidelines.
2. The patient has no emergency clinical symptoms or signs of recent onset (see 'Emergency patients').
3. The patient has an illness or injury that does not require active treatment but which does require supervised patient transport. Examples include:
 - inability to travel in a normal seated position
 - requirement for oxygen during transport
 - impaired cognitive function
 - inability to travel more than a few steps unaided.

It is also acceptable for NEPT to transport a patient who is not acutely ill, but who requires stretcher transport because of a chronic medical condition (such as quadriplegia) and who is unable to access a suitable alternative form of transport. An example of this would be a stretcher patient who wishes to attend a social function.

Staffing:

The NEPT staffing for low-acuity patients is a minimum of one patient transport officer.

A minimum requirement of two patient transport officers is required in stretcher vehicles when:

- an occupational health and safety assessment has been undertaken (see Appendix 4) that indicates that stretcher loading by one PTO would be unsafe (for example, because the stretcher design is not appropriate for loading by one person)
- there is more than one patient transported in the vehicle.

For transport by air, the minimum NEPT staffing for low-acuity patients is one ambulance transport attendant.

Patient care record documentation:

The NEPT record must include a brief description of the clinical features that confirm that the patient is low-acuity. Unless otherwise clinically indicated, the measurement and recording of vital signs is not required.

Multiple patient transports

It may be appropriate for NEPT to transport more than one low-acuity patient in a vehicle. However, when one patient is unloaded and transferred into a health facility, consideration needs to be given to the comfort and security of the other patient(s). Patients may only be left unattended in a NEPT vehicle if:

- they are cognitively stable, and agree to be left unattended
- the cabin temperature is comfortable with the vehicle engine not running.

Patients with possible infectious disease (such as influenza, measles, mumps or TB) or colonisation with multi-resistant organisms (MRSA, VRE) must not be transported with other patients. Following the transport of such patients, the vehicle must be cleaned in accordance with standard infection control practice.

Medium-acuity patients

A medium-acuity patient is defined as a patient who requires active monitoring or management and in whom all the following apply:

1. An assessment has been made by a **medical practitioner** that the patient is haemodynamically stable for the duration of the transport
2. There is no likelihood that the patient will require transport under emergency conditions
3. The patient does not meet the criteria of an emergency patient
4. There is an illness or injury which requires one or more of the following:
 - (a) cardiac monitoring
 - (b) observation and monitoring of an intravenous infusion of a crystalloid fluid, with or without an infusion pump
 - (c) observation and monitoring of an intravenous infusion of crystalloid fluid containing glyceryl trinitrate or heparin using (an) infusion pump(s)
 - (d) care of an intercostal catheter or central venous catheter
 - (e) care of the patient who has a recent fracture of the spinal column (without spinal cord injury)
 - (f) care of the patient on home ventilation.

Medium acuity status also applies if the patient has a mental illness and is assessed as behaviourally stable by the sending practitioner, and meets the criteria described under 'patients with a mental illness' (see Appendix 3).

Staffing:

For transport **by road**, the NEPT staffing for medium-acuity patients is a minimum of at least one patient transport officer and one ambulance transport attendant, ambulance officer or Division 1 registered nurse with appropriate bridging course (see matrix for requirements).

Two medium-acuity patients who meet the criteria of 4(b), 4(d) above, but only one medium-acuity patient who either meets 4(c), 4(e), 4(f), 4(a) or who has a mental illness (as above) may be transported in a NEPT road vehicle at any given time.

For transport **by air**, the minimum NEPT staffing for medium-acuity patients is one ambulance transport attendant. A patient with a mental illness must only be transported by air if a psychiatrist has determined that this mode of transport is appropriate for the patient.

Documentation:

The NEPT record must include a brief description of the clinical features that confirm the patient is medium acuity and the name of the medical practitioner who assessed the patient, as well as the date and time seen.

For all medical patients and those being transported for the treatment of a mental disorder and who have received sedation, the measurement and recording of vital signs (BP, pulse, respirations, GCS) prior to transport and on arrival at the receiving facility is required. Vital signs in these instances are also to be taken and recorded at half-hourly intervals (or the same time intervals as measured in the hospital) if the duration of the journey allows.

Patient with a mental illness

Patients with a mental illness are regarded as medium-acuity patients suitable for NEPT, provided they are:

- being transported from one health facility to another or from a health facility to home and
- not being transported under the *Crimes (Mental Impairment and Unfitness to be Tried) Act 1997*.

If the patient is treated under a provision of the *Mental Health Act 1986*:

- the patient is not recommended (see summary Appendix 3)
- the patient does not require physical restraint
- the patient will not require sedation during transport
- where sedation has been administered for the purpose of transport and is additional to usual medication, the patient is awake (follows commands) at least 30 minutes after sedation has been administered.

When transporting a patient with a mental illness who has received sedation, behavioural observations and respiratory rate should be recorded half-hourly for the duration of the journey.

When transporting a patient with a mental illness who has not received sedation, behavioural observations only should be recorded half-hourly for the duration of the journey.

Patients on home ventilation

Patients on home ventilation are regarded as medium-acuity patients, provided that the NEPT attendant or a carer is able to perform:

- tracheal suctioning
- connection of the ventilator to the tracheostomy in the event of accidental disconnection (if the patient is unable to do this)
- connection of a bag or valve device (such as Ambu bag) to the tracheostomy for the administration of ventilation in the event that the ventilator fails.

High-acuity patients

A high-acuity patient is defined as a patient in whom:

1. An assessment has been made by a referring medical practitioner that the patient is stable for the duration of the transport
2. There is no likelihood that the patient will require transport under emergency conditions
3. The patient does not meet the criteria of an emergency patient
4. There is an illness or injury, which requires active monitoring or treatment by a nurse or medical practitioner, including:
 - mechanical ventilation
 - an intravenous infusion of a vasoactive drug
 - a patient with tracheostomy
 - a patient with a central or arterial line
 - a device which supports the circulation (intra-aortic balloon pump or extra-corporeal membrane oxygenation).

Staffing:

When transporting **by road**, NEPT staffing for high-acuity patients is at least one of the following at a minimum:

- at least one ambulance transport attendant or ambulance officer, **and** one patient transport officer and an appropriately trained medical or nurse escort
- one patient transport officer **and** one NEPT Division 1 registered nurse with an ICU/CCU/emergency qualification and recent experience in the critical care setting
- staff from NETS/PETS/VAERCS (retrieval services) and one patient transport officer.

When transporting **by air**, the NEPT staffing for high-acuity patients is at least one of the following at a minimum:

- ambulance transport attendant or ambulance officer, one patient transport officer **and** an appropriately trained medical or nurse escort
- one patient transport officer **and** one NEPT Division 1 registered nurse with an ICU/CCU/emergency qualification and recent experience in the critical care setting
- staff from NETS/PETS/VAERCS (retrieval services) and one patient transport officer.

Documentation:

The NEPT record must include a brief description of the clinical features that confirm the patient is high acuity and include the name of the escort and the name of the medical practitioner who assessed the patient as well as the date and time that the assessment was made.

The measurement of vital signs must be undertaken by the medical or nurse escort or NEPT Div 1 nurse (as above) and recorded on the transfer documentation.

Notes:

If a high-acuity patient is referred to NEPT for transport, an appropriately trained registered nurse (Division 1) or medical practitioner employed by the NEPT provider, or a medical practitioner or registered nurse (Division 1) from the sending facility is required to escort the patient. If this resource is unavailable, then an emergency ambulance is required to undertake the transport.

Only one high-acuity patient at any given time may be transported in a NEPT road vehicle.

All VAERCS transfers must be undertaken using the emergency ambulance service, unless the attending retrieval physician specifically approves the use of NEPT.

Mechanically-ventilated patients

All mechanically-ventilated patients who are being transported by NEPT must be accompanied by a medical practitioner who has the appropriate skills and equipment to undertake this task.

The exceptions to this requirement are:

1. A stable ventilated patient transported by Air Ambulance Victoria, who requires transfer from hospital to aircraft or aircraft to hospital, may be escorted in a NEPT vehicle by a MICA flight paramedic working for an emergency ambulance service.
2. A patient on home ventilation (see medium-acuity patient).

A patient who is breathing spontaneously via a tracheostomy may be transported by a nurse with a critical care qualification, provided that the tracheostomy was performed more than five days prior to transfer. If the tracheostomy was performed within five days, a medical practitioner who has the appropriate skills and equipment to undertake the task of tracheal tube replacement or intubation must accompany the patient.

Patients who have undergone laryngectomy and permanent tracheostomy are not regarded as high acuity on the basis of this surgery alone.

All escorts must be appropriately seated and restrained, and all equipment must be securely fastened during transfer.

Patients with mechanical circulatory support

The following requirements apply:

- For patients with an intra-aortic balloon pump, extra-corporeal membrane oxygenation or similar circulatory support device, careful consideration of the potential for patient instability needs to be given by the approving medical practitioner. In particular, there must be awareness of the possible delay in arrival at the receiving hospital due to traffic conditions given the inability of NEPT to upgrade to a Code 1 response.
- The assessment of haemodynamic stability in these patients must take into account the fact that systolic blood pressure is not an accurate guide to stability. Some patients on an intra-aortic balloon pump or other support may be stable with lower blood pressure. The sending medical practitioner must be satisfied that the patient is stable for NEPT.

In any cases of doubt, an emergency ambulance must undertake the transport.

All patients with mechanical circulatory support must have an appropriate medical perfusionist or nurse and medical practitioner escort.

The circulatory assist device must be loaded by the NEPT staff or with an appropriate lifting device. The medical and nursing staff at the sending or accepting hospital will be unable to assist with the lifting of heavy equipment into the vehicle.

Patient being transported by aircraft

A patient who meets any of the acuity descriptions may be transported by air. The effect of altitude on any patient condition must be taken into account prior to a patient being assessed as suitable for air transport.

Particular caution is required when a patient has a condition that requires the administration of oxygen prior to air travel, including patients with chronic shortness of breath. The effects of altitude and inability to access additional resources once the journey has commenced requires that caution be exercised when assessing the suitable level of escort and equipment.

Patients with cardiac or respiratory conditions must be monitored with pulse oximetry during flight, and supplemental oxygen provided to ensure an oxygen saturation of over 92 per cent, except in the following circumstances:

- O₂ sat 90 per cent for chronic obstructive pulmonary disease patients
- O₂ sat over 95 per cent for patients with stable acute coronary syndrome.

In addition, patients with recently applied (72 hours) plaster casts must be monitored carefully, and the plaster cast split if there is additional discomfort during flight.

Patients with any barotrauma such as pneumothorax, decompression illness, or intracranial air must only be transported by aircraft when it is possible to maintain cabin pressure at sea level.

For transport by road by NEPT from aircraft to hospital, or hospital to aircraft, all the criteria for low, medium and high-acuity transport apply.

Patient assessment

Conscious state assessment

Assess conscious state using Glasgow coma score

Glasgow Coma Score

A.	Eye opening	Score	
	Spontaneous	4	
	To voice	3	
	To pain	2	
	None	1	A: _____
B.	Verbal response	Score	
	Orientated	5	
	Confused	4	
	Inappropriate words	3	
	Incomprehensible sounds	2	
	None	1	B: _____
C.	Motor response	Score	
	Obeys command	6	
	Purposeful movements (pain)	5	
	Withdraw (pain)	4	
	Flexion (pain)	3	
	Extension (pain)	2	
	None	1	C: _____
Total GCS (Maximum score = 15)			
			(A + B + C) = _____

Respiratory assessment

	Normal	Severe respiratory distress
Rate	12-16/ min	Rapid (>30)
Appearance	Calm, quiet	Distressed, exhausted
Ability to speak	Clear and steady	Speaks in short phrases or unable to speak
Noises	Usually quiet	May be no breath sounds Pulmonary oedema: crackles with possibly inspiratory +/- expiratory wheeze Upper airway obstruction: Inspiratory stridor
Skin colour	Pink and warm	Sweaty and may be cyanosed
Conscious state	Alert	Altered or unconscious
Pulse rate	60 - 100	< 50 or >120/ min

Notes:

Severe respiratory distress is defined as rapid respirations (>30/ minute) plus one or more of the above criteria where the onset is within 24 hours, immediate referral to the emergency ambulance service (by phoning 000) is required and emergency care is to be commenced without delay.

Perfusion assessment

The perfusion assessment is made up of a series of observations that, when considered together, provide an indication of a patient's perfusion and the function of the cardiovascular system.

These observations are:

- blood pressure
- pulse – rate
- skin – colour, temperature and moistness
- conscious state

	Skin	Pulse	Blood pressure	Conscious state
Adequate perfusion	Warm, pink and dry	50 – 120 minute	>100 mm Hg systolic	Alert and orientated in time and place
Inadequate perfusion	Cool, pale, clammy	<50 or >120 min	<100 mm Hg systolic	May be alert or conscious state may be altered
No perfusion	Cool, pale, clammy	Absence of palpable pulse	Unable to record	Unconscious

Clinical protocols

Breathing difficulties

Oxygen therapy:

Oxygen may be administered to patients with:

- new onset respiratory distress, where a medical practitioner has prescribed oxygen therapy during transfer (note prescribed rate)
- new onset severe respiratory distress, where oxygen at 8 L/ min by face mask may be administered, whilst awaiting arrival of emergency ambulance
- mild-moderate respiratory distress, where oxygen at 8 L/ min by face mask may be administered during NEPT transfer
- chronic breathing difficulties on home oxygen, who may have oxygen continued during transport at the prescribed rate (usually 1-4 L/ min by nasal prongs)
- known chronic obstructive pulmonary disease where a medical practitioner has not yet seen the patient, but who become breathless during loading on to the stretcher, may have oxygen administered by nasal prongs at 2 L/ min. If breathlessness does not improve after 10 minutes manage as per the acute breathing difficulty algorithm.
- at maximum flow rate by bag/ valve/ mask during cardio-pulmonary resuscitation
- for the nebulisation of salbutamol (see below).

Salbutamol:

Patients with breathing difficulties and wheeze may benefit from salbutamol therapy.

Salbutamol may be administered by an oxygen-driven (8L/ min) nebuliser for patients with:

- new onset respiratory distress, where a medical practitioner has prescribed salbutamol therapy
- mild exacerbation of chronic obstructive pulmonary disease or asthma who routinely use salbutamol
- new onset severe respiratory distress and wheeze, whilst awaiting arrival of an emergency ambulance (see acute breathing difficulty algorithm on following page).

Breathing difficulty algorithm

1. Initial management

- Assist into an upright position
- Commence oxygen therapy as per protocol on page 21
- If in severe respiratory distress, activate emergency ambulance response (ring '000')



2. If wheeze present or patient has history of asthma

- Administer salbutamol 10 mg via nebuliser mask with oxygen 8 LPM
- Continue treatment (5 mg every five minutes) until patient states breathing improved (no longer severe respiratory distress) or handover to paramedic.



3. If condition improves, commence transport to destination and notify emergency communications centre

- Notify receiving facility
- Continually reassess patient during transport and modify treatment as required

3. Commence transport to rendezvous with emergency ambulance as advised by emergency communications centre

- Continually reassess patient during transport and modify treatment as required

3. Wait with patient for arrival of an emergency ambulance (unless a higher level of care present)

- Continually reassess patient while waiting for ambulance
- Notify emergency communications centre if patient condition deteriorates (ring '000')

Notes:

If a foreign body in the upper airway is suspected, and the patient is not able to talk, breathe or cough, activate the emergency ambulance response and administer back blows or anterior chest thrusts as required, and administer oxygen.

If an altered conscious state occurs at any time, immediately commence oxygen at a maximum rate via a bag/ valve/ mask. Assist ventilation as required and activate an emergency ambulance response.

If the patient is non-breathing, be aware that over ventilation of the asthmatic patient may worsen their condition. In the case of severe asthma and respiratory arrest, slowbag/ valve/ mask ventilation at the following rates may be necessary:

Adult	6 - 8 per minute
Large child	8 - 12 per minute
Small child	10 - 15 per minute
Infant	15 - 20 per minute

If the patient becomes pulseless at any stage, manage as per the *cardiac arrest algorithm*.

Chest pain

Sub-lingual GTN

Sub-lingual GTN is authorised for use by NEPT if chest pain occurs:

- during transport of a patient with an acute coronary syndrome despite therapy with heparin or GTN therapy
- during transport of a patient who has known ischaemic heart disease, where the chest pain is not an unusual occurrence for the patient
- in a patient without known ischaemic heart disease, which could be cardiac in origin, while awaiting the arrival of an emergency ambulance.

Methoxyflurane

Methoxyflurane is authorised for treatment of chest pain by NEPT if chest pain occurs:

- during transport of a patient with an acute coronary syndrome despite therapy with heparin/ GTN therapy, and blood pressure < 110 mmHg contraindicates the use of sublingual GTN
- during transport of a patient who has known ischaemic heart disease, where the chest pain is not an unusual occurrence for the patient and blood pressure < 110 mmHg contraindicates the use of sublingual GTN
- in a patient who is not known to have ischaemic heart disease, while awaiting the arrival of the emergency ambulance, when sublingual GTN is not authorised or blood pressure < 110 mmHg contraindicates the use of sublingual GTN.

Chest pain algorithm

1. Initial management

- Assess if likely to be cardiac pain using DOLOR (Description, Onset, Location, Other symptoms, Relief) and determine pain severity using verbal pain rating scale (0-10)
- Administer oxygen 8 l/m via face mask



2. If likely to be cardiac pain or discomfort

- Contact emergency ambulance service (ring 000)
- Administer chewable **aspirin 300 mg** (one tablet) if no allergies and not already taken in last 24 hours



3. If pain score > 2 and previous Sublingual GTN administration

- Administer **sublingual GTN 0.6 mg** (one tablet) sublingually if BP > 110 mmHg and no contraindications (see drug sheet)
- Repeat **sublingual GTN 0.6 mg** (1 tablet) every five minutes until pain is reduced to a comfortable or tolerable level or the onset of side effects
- Assess vital signs between each administration
- In the event of a sudden altered conscious state or fall in blood pressure to < 100 mmHg following **sublingual GTN** administration, immediately remove the tablet from the patient's mouth

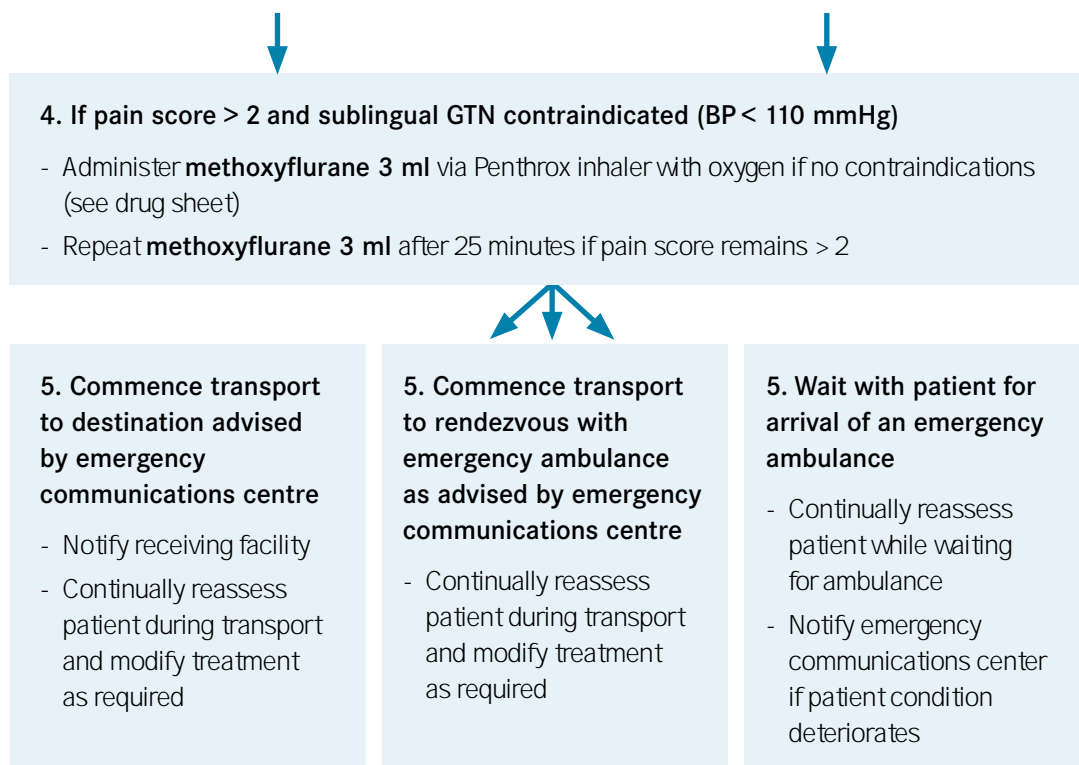


3. If pain score > 2 and no previous Sublingual GTN administration

- Administer **sublingual GTN 0.3 mg** (half tablet) sublingually if BP > 110 mmHg and no contraindications (see drug sheet)
- Repeat **sublingual GTN 0.3 mg** (half tablet) every five minutes until pain is reduced to a comfortable or tolerable level, or onset of side effects (see drug sheet)
- Assess vital signs between each administration and cease **sublingual GTN** administration if BP falls below 110 mmHg
- In the event of a altered conscious state or sudden fall in blood pressure following **sublingual GTN** administration, immediately lie patient flat and remove the tablet from the patient's mouth



Continued next page >

Chest pain algorithm continued**Notes:**

During inter-hospital transfer of the patient with an acute coronary syndrome, mild chest pain which occurs despite GTN and heparin infusions may be treated with **sublingual GTN** and transport continued. An emergency ambulance need only be called if the chest pain does not promptly resolve with the administration of **sublingual GTN**, or the patient develops instability of vital signs.

Similarly, chest pain that occurs during transport of a patient who has known ischaemic heart disease, where the chest pain is not an unusual occurrence for the patient may be treated with **sublingual GTN** and transport continued. An emergency ambulance need only be called if the chest pain does not promptly resolve with the administration of **sublingual GTN**, or the patient develops instability of vital signs.

Pain protocol

Methoxyflurane is authorised for use by NEPT if:

- the patient is conscious and able to self administer the methoxyflurane
- pain is a result of an acute injury and likely to be due to a fracture of ribs, long bone(s), the pelvis or spinal column
- chest pain where **sublingual GTN** therapy is contra-indicated (such as due to low blood pressure)
- severe back or joint pain that is likely to be musculoskeletal in nature, where loading to a stretcher is associated with significant pain.

1. Initial management

- Assess pain score (1-10) using verbal pain rating scale



2. If pain score > 2

- Administer **methoxyflurane 3 ml** via Pentrox analgesic if no contraindications (see drug sheet). Administer with oxygen if indicated for respiratory distress or chest pain
- If pain score remains > 2, one further dose of **methoxyflurane 3 ml** may be administered
- Record on PCR doses of methoxyflurane given and effect on patient's pain



3. Commence transport

- Undertake transport to destination
- Continually reassess patient during transport and modify treatment as required
- If pain worsening contact the **emergency ambulance service** (ring 000) and proceed as directed

Notes

- For patients at public events with traumatic pain, **methoxyflurane** may be administered while awaiting the arrival of the medical practitioner or emergency ambulance.
- **Methoxyflurane** must not be administered for any pain outside this protocol, such as headache or abdominal pain.
- The maximum dose of **methoxyflurane** for any one patient is 6 ml per 24-hour period. Under no circumstances is this to be exceeded.
- Patients with pain may be transported by NEPT provided that they do not otherwise meet the criteria of an emergency patient.

Cardiac arrest protocols

Ventricular fibrillation or pulseless ventricular tachycardia– Not witnessed by NEPT

Manual monitor or defibrillation

1. Initial management
 - Confirm unconscious and no carotid pulse
 - Activate emergency ambulance response (ring 000)
 - Commence effective CPR (30 compressions to two breaths) (Insert oral airway and commence ventilations with oxygen while preparing to defibrillate and during defibrillator charging)
 - Defibrillate single shock - monophasic 360 or biphasic 200 joules (or maximum as per manufacturer)
 - Immediately recommence CPR without carotid pulse or rhythm check
 - Perform CPR for two minutes and then check carotid pulse or rhythm

2. VF or pulseless VT remains
 - Defibrillate single shock - monophasic 360 or biphasic 200 joules (or maximum as per manufacturer)
 - Immediately recommence CPR without carotid pulse or rhythm check
 - Perform CPR for two minutes and then check carotid pulse or rhythm
 - Repeat above cycle until arrival of emergency ambulance

3. If return of spontaneous circulation (ROSC)
 - Ventilate at a rate of 15 breaths per minute using a tidal volume of approximately 10 ml/ kg.

Ventricular fibrillation or pulseless ventricular tachycardia– Witnessed by NEPT

Manual monitor or defibrillation

1. Initial management
 - Confirm unconscious and no carotid pulse
 - Activate emergency ambulance response (ring 000)
 - Commence effective CPR (30 compressions to two breaths) (Insert oral airway and commence ventilations with oxygen whilst preparing to defibrillate and during defibrillator charging)
 - Defibrillate monophasic 360 x3 or biphasic 200 joules x3 (or maximum as per manufacturer)
 - Perform CPR for two minutes and then check carotid pulse or rhythm

2. VF or pulseless VT remains
 - Defibrillate single shock - monophasic 360 or biphasic 200 joules (or maximum as per manufacturer)
 - Immediately recommence CPR without pulse or rhythm check
 - Perform CPR for two minutes and then check carotid pulse or rhythm
 - Repeat above cycle until arrival of emergency ambulance

3. If return of spontaneous circulation (ROSC)
 - Ventilate at a rate of 15 breaths per minute using a tidal volume of approximately 10 ml/kg.

Asystole or pulseless electrical activity (PEA)

Manual monitor or defibrillation

1. Initial management
 - Confirm unconscious and no carotid pulse
 - Activate emergency ambulance response (ring 000)
 - Commence effective CPR (30 compressions to two breaths)
 - Perform CPR for two minutes and then check carotid pulse or rhythm

2. If asystole or PEA continues
 - Continue effective CPR and recheck carotid pulse or rhythm every two minutes
 - Repeat above cycle until arrival of emergency ambulance

3. If return of spontaneous circulation (ROSC)
 - Ventilate at a rate of 15 breaths per minute at a tidal volume of approximately 10 ml/ kg

Automated external defibrillator (AED)

1. Initial management

- Confirm no pulse clinically
- Activate emergency ambulance response
- Commence effective CPR (30 compressions two breaths) (Insert oral airway and commence ventilations with oxygen whilst preparing AED)
- Switch AED on
- Attach electrodes as indicated on package
- Follow AED spoken or visual directions (AED will analyse if shock required)
- Defibrillate if directed (ensure no contact with casualty when shock button pressed)
- If reversion unsuccessful, perform CPR for two minutes
- Follow AED spoken or visual directions (AED will analyse if shock required)



2. Continued resuscitation

- Remain in contact with the emergency ambulance communications centre who will advise the NEPT provider to:
- remain with patient at scene until arrival of an emergency vehicle
- transport patient to nearest hospital
- rendezvous with an emergency vehicle
- If transport is advised it should be undertaken carefully, obeying road rules. Stop the vehicle to re-analyse the rhythm and follow the voice prompts

Notes:

For the purposes of these protocols, an external automatic defibrillator (AED) is regarded as being the same as a shock advisory defibrillator (SAED).

Although NEPT vehicles are required to carry a cardiac monitor, and may have a defibrillator that is able to be used in either shock advisory or manual mode, it is highly recommended that this type of defibrillator be used in shock advisory mode wherever possible.

Perform CPR at a compression/ventilation ratio 30:2 at a compression rate of 100 per minute with either one or two rescuers.

CPR must not be interrupted for more than 10 seconds during rhythm or carotid pulse checks. If it is uncertain if a carotid pulse is present, then assume it is not and immediately commence or recommence CPR.

Rescuers should changeover performance of external cardiac compressions every two minutes (during rhythm checks) to avoid fatigue and subsequent impact on CPR performance. Changeover time should not exceed five seconds.

If another rhythm develops at any stage during resuscitation then reassess the patient and manage as per relevant protocol.

Withholding resuscitation

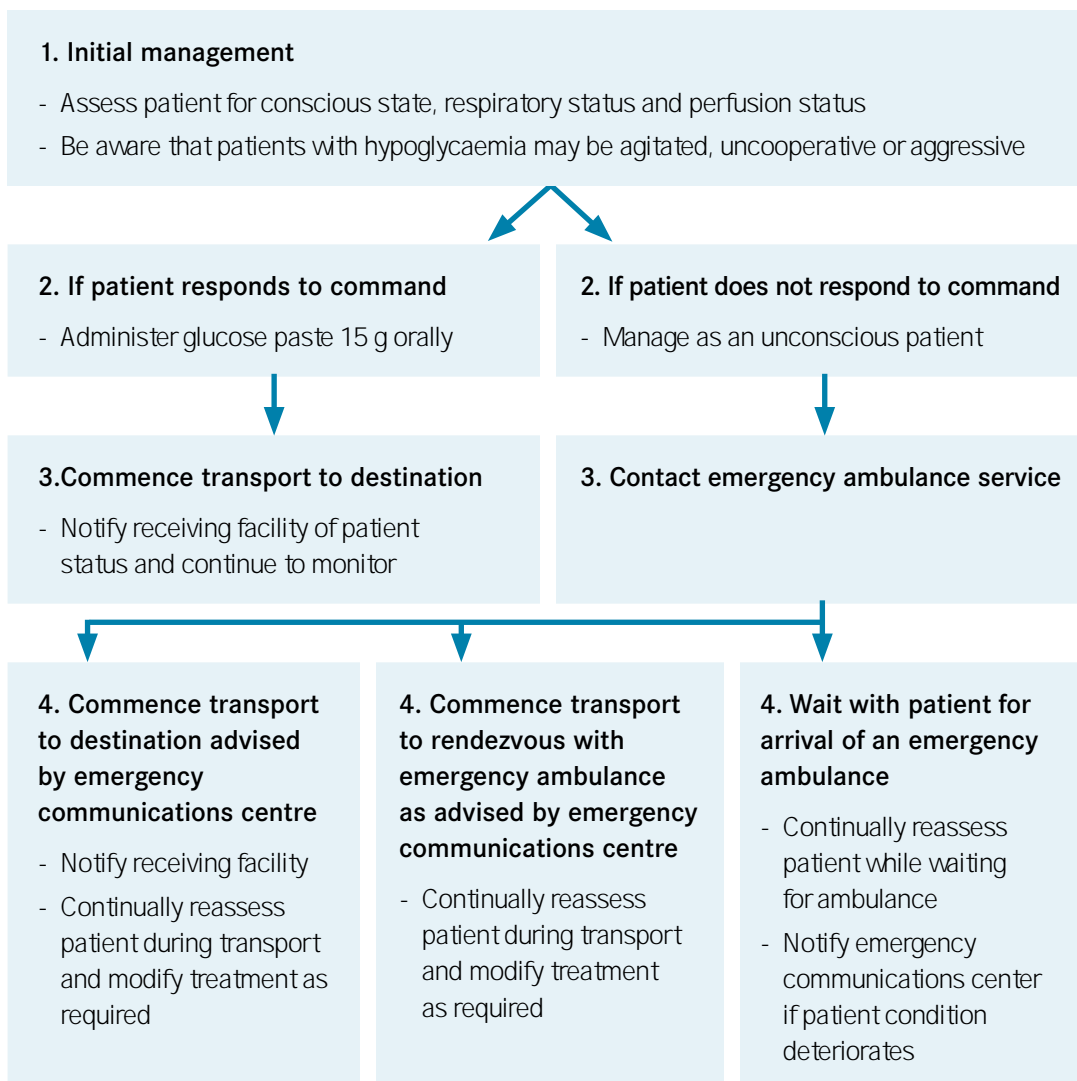
Cardiopulmonary resuscitation or defibrillation may only be withheld:

- If there is a 'refusal of treatment' certificate that states that cardiopulmonary resuscitation be withheld. This certificate may be sighted, or it may be accepted in good faith by those present at the scene that this document exists
- for inter-hospital transfer, or hospital to home transfer, a 'not for resuscitation' form must be sighted in the medical record of the transferring hospital. In addition, a copy of the 'not for resuscitation' must be made and included with the patient care record. Special note should be made of any specific limitations of the 'not for resuscitation' order, for example, some orders state that a number of defibrillations, but not other advanced life support measures, may be given in the event of a cardiac arrest.

Hypoglycaemia

The treatment of hypoglycaemia is authorised for NEPT employees if:

- it occurs in a known diabetic, and is found on arrival or occurs during transport
- at public events, where a known diabetic presents to the NEPT provider with signs or symptoms.



5. Extended protocol

NB. This protocol can only be followed if there is the ability to measure the patient's blood glucose level

- Perform random blood glucose (RBG)
- If RBG < 4 mmol/L and the patient is conscious, administer **glucose paste 15 g** orally
- If RBG < 4 mmol/L, and the patient has an altered conscious state and is older than eight years of age, administer **glucagon 1 mg IMI**
- If the patient has an altered conscious state, and is under eight years of age, administer **glucagon 0.5 mg IMI**
- If RBG > 4 mmol/L, no specific treatment is required and other causes should be considered

Since glucagon may take some time to take effect, and the patient may need subsequent evaluation by a medical practitioner, the patient must be transported by emergency ambulance.

Handover or notification

When providing pre-arrival information, or handing over a patient to another health care professional, patient information may be provided in a structured way using the **IMISTA** format.

Introductory information, including patient's name age and gender
M ain presenting problem
I njuries or illness
S igns and symptoms, including vital signs survey
T reatment provided and response to treatment
A ny other relevant information, such as past history, allergies or medication

NEPT pharmacology

Glyceryl trinitrate (GTN)

Presentation

0.6 mg tablets

Indications for use

Cardiac chest pain

Contraindications

Known hypersensitivity

Blood pressure < 110 mmHg systolic

Sildenafil citrate, vardenafil (or similar) taken in the past 24 hours or tadalafil, Levitra or similar in the preceding four days

Heart rate > 150 per minute or ventricular tachycardia

Precautions

No previous administration

Elderly patients

Administration

Sublingual

Dose

Extended protocol: 0.3 mg (half tablet) sublingual if no previous administration

0.6 mg (one tablet) sublingual if previous administration

Side effects

Hypotension

Tachycardia

Headache

Bradycardia

Skin flushing

Special notes

Sublingual GTN is susceptible to heat and moisture and tablets must be stored tightly sealed in their original container and tablets discarded one month after the container is opened.

Do not administer a patient's own medication as it may not have been stored in optimal conditions.

Aspirin

Presentation

300 mg chewable tablet

Indications for use

Cardiac chest pain or discomfort

Contraindications

Hypersensitivity to aspirin or salicylates

Actively bleeding peptic ulcers

Bleeding disorders

Suspected aortic aneurysm

Precautions

Nil of significance for the above indication

Dose

300 mg tablet

Side effects

Heartburn, nausea, gastrointestinal bleeding

Increased bleeding time

Hypersensitivity reactions

Special notes

Aspirin is not be administered by NEPT for any condition other than acute chest pain of a cardiac nature (such as headache).

Glucagon

Presentation

1 mg in 1 ml Hypokit

Indications for use

Hypoglycaemia with RBG < 4 mmol and altered conscious state

Contraindications

Nil of significance for the above indication

Dose

8 years or greater 1 mg IM

< 8 years of age – 0.5 mg (0.5 ml) IMI

Precautions

Nil of significance for the above indication

Side effects

Nausea and vomiting

Special notes

Not all patients will respond to glucagon and it is important to ensure early contact of the emergency communication centre in all cases of hypoglycaemia.

Glucose paste

Presentation

15 g tube

Indications for use

Diabetic hypoglycaemia in the conscious patient

Contraindications

Nil of significance for the above indication

Precautions

Nil of significance for the above indication

Dose

15 g orally

Side effects

Nausea and vomiting

Special notes

Not all patients will respond to glucose paste and it is important to ensure early contact with the emergency ambulance communications centre in all cases of hypoglycaemia.

Methoxyflurane

Presentation

3 ml glass bottle with plastic seal

Indications for use

Pre-hospital pain relief

Contraindications

Pre-existing kidney disease

Patients taking tetracycline antibiotics

Precautions

Pregnancy

Penthrox[®] inhaler must be held by patient so that if unconsciousness occurs it will fall from patient's face

Patient must be supervised at all times during Methoxyflurane administration

Dose

3 ml via Penthrox[®] inhaler. This will provide approximately 25 minutes of pain relief and may be followed by one further dose once the original dose has expired, if required.

The maximum dose is 6 ml in any 24-hour period

Side effects

Drowsiness

Exceeding maximum total dose of 6 ml in 24 hour period may lead to kidney damage

Special notes

Analgesia commences after 8-10 breaths and lasts for approximately 3-5 minutes once discontinued.

Concurrent administration of oxygen 3-8 LPM through the inhaler during use is recommended where appropriate.

Must not be administered to a child less than five years of age.

Oxygen

Presentation

High pressure black cylinder with white shoulder

Indications for use

Treatment of hypoxia

To increase oxygenation in patients with acute injury or illness

Contraindications

Nil of significance for the above indications

Precautions

Beware of fire or explosive hazards

Patients with chronic obstructive pulmonary disease often require limitation of oxygen therapy.

The amount of oxygen in these patients should be as prescribed by a medical practitioner, or a maximum of 2 L/min by nasal prongs

Dose

Limited supplementation (24-28%): 2 L/min by nasal prongs

Moderate concentration (40%) via face mask at 8 LPM

High concentration (60% - 95%) via bag/valve/mask device with reservoir bag at 8-15 LPM

Side effects

Drying of the mucous membranes of the upper airway.

Salbutamol

Presentation

5 mg or 2.5mgs in nebulers

Indications for use

Breathing difficulty with wheeze or history of asthma

Contraindications

Nil of significance for the above indication

Precautions

Continue to administer oxygen 8 LPM between doses if required for breathing difficulty (unless known chronic obstructive pulmonary disease)

Dose

10 mg via nebuliser mask with oxygen

Continue treatment with 5 mg every five minutes until patient states breathing normal or handover to hospital or paramedic

Side effects

Tachycardia

Muscle tremor

Special notes

Unused nebulers remaining in the pack at the completion of a case should be discarded.

Nebulers should be stored in an environment < 30°C

Reference material

Common abbreviations table

Abbreviation	Meaning
b.d.	Twice daily
t.d.s.	Three times daily
q.i.d.	Four times daily
p.r.n.	Whenever necessary
stat	Immediate, once only dose
daily	Once daily
nocte	Given on settling (at night)
6/24	Six hourly
PEARL	Pupils equal and reacting light
Hx	History
C/O	Complaining of
Ca	Cancer
O/A	On arrival
PHx	Past history
I.M.	Intramuscularly
I.V.	Intravenously
S.L.	Sublingual
P.R.	Per rectal
P.V.	Per vagina
'O'	Orally
Pt	Patient
O/E	On examination
Rx.	Treatment
B.P.	Blood pressure
B.S.L.	Blood sugar level
E.C.G.	Electrocardiogram
TTE	Trans-thoracic echocardiogram
TOE	Trans-oesophageal echocardiogram
I.V.T.	Intravenous therapy
N.A.D.	No abnormalities detected
I.D.C.	In-dwelling catheter
PEG	Percutaneous Endoscopic Gastrostomy
Medn	Medication

Mnemonics table

Common examples to assist the NEPT

Signs and symptoms of a fracture	<ul style="list-style-type: none"> Pain Irregularity Loss of movement or power Swelling Deformity Unnatural movement Crepitus Tenderness
Treatment of fracture	<ul style="list-style-type: none"> Fix Reassure Afford limb support Cover any wounds Try for natural position Use appropriate splint React to haemorrhage Every occasion suspect fracture Shock – treat and manage
Pain assessment	<ul style="list-style-type: none"> Description Onset Location Other symptoms Relief
Situation report	<ul style="list-style-type: none"> Sex Age Description Injuries Estimated time of arrival (ETA)
History	<ul style="list-style-type: none"> Allergies Medications (current) Past medical history Last meal Event that prompted the call for an ambulance
Respiratory status assessment	<ul style="list-style-type: none"> Position Appearance Speech Sounds Respiratory rate Respiratory rhythm Effort (breathing) Pulse rate Skin Conscious state
Pre-arrival notification	<ul style="list-style-type: none"> Introductory information, including patient's age and gender Mechanism of injury or main presenting problem Illness or Injury Signs and symptoms, including vital signs survey Treatment provided and response to treatment Any other relevant information

Paediatric reference material

Definitions of the paediatric emergency patient

The following symptoms/ signs/ clinical syndromes define a paediatric emergency patient who must not be transported by NEPT.

Respiratory distress

Signs of respiratory distress in children	
Tachypnoea	Use of accessory muscles
Grunting	Pallor
Wheezing	Abdominal protrusion
Chest wall retraction	Diminished air entry
Irritability	Cyanosis (late sign)

Signs of hypoxia in children	
Infants	Children
Lethargy	Restlessness
Bradycardia	Tachypnoea
Hypotension	Tachycardia
Apnoea	Cyanosis
Pallor	Bradycardia (late sign)

Decreased perfusion

Age	Pulse	BP mmHg	Skin	Conscious state
Newborn	<100 or >170	N/A	Cool, pale clammy, peripheral cyanosis	Altered conscious state or restless
Infant	< 90 or >170	< 60	Cool, pale clammy, peripheral cyanosis	Altered conscious state or restless
Small child	< 75 or >130	< 70	Cool, pale clammy, peripheral cyanosis	Altered conscious state or restless
Large child	< 65 or >100	< 80	Cool, pale clammy, peripheral cyanosis	Altered conscious state or restless

Decreased conscious state

GCS < 14

Headache

All headaches must be regarded as possible sub-arachnoid haemorrhage. Therefore, unless sub-arachnoid haemorrhage has been ruled out by appropriate investigations or an alternative diagnosis has been made by a medical practitioner, there is a potential for sudden neurological deterioration and the patient is regarded as an emergency patient.

Suspected meningococcal septicaemia

Patients with evidence of septicaemia (with a rash suggestive of this disease) must be treated as an emergency patient.

Trauma patients

Patients with criteria for major trauma require transport by emergency ambulance to a major trauma service (see Appendix 2).

Children with pain

Significant pain other than headache does not necessarily make the patient an 'emergency patient'. A child may be transported by NEPT even if the NEPT pain relief protocol is not applicable because:

- awaiting the arrival of an emergency ambulance may delay definitive pain relief available in an emergency department
- providing appropriate analgesia for a patient may also be outside the scope of an ambulance paramedic.

Definitions

Definitions of 'infant' and 'child' are based on a combination of physiology, age and physical size, which influences the efficacy and practicality of performing resuscitative techniques.

The term 'newborn' refers to a child who is just born; 'infant' refers to a child of less than one year of age; 'small child' refers to a child of pre-school and early primary school age (1-8 years); 'large child' refers to a child of middle and late primary school age child and to a child of early teenage (9-14 years). Older children may be treated as per adult protocols but it should be noted that they do not have the same susceptibility to ventricular fibrillation.

Paediatric weight calculation

For children, the doses of drugs, DC shock and fluid therapy are based on body weight. Refer to the paediatric graph for calculations of estimated body weight for specific ages. If the body weight is unknown, it can be estimated from the child's age using the following:

Age of child	Weight
Newborn	3.5 kg
5 months	7 kg
1 year	10 kg
1 – 9 years	Age x 2 + 8 kg
10 – 14 years	Age x 3.3 kg

Respiratory assessment (paediatric)

Normal respiratory values

Newborn	40 – 60 breaths/ min
Infant	20 – 50 breaths/ min
Small child	20 – 35 breaths/ min
Large child	15 – 25 breaths/ min

Signs of respiratory distress in children	
Tachypnoea	Use of accessory muscles
Grunting	Pallor
Wheezing	Abdominal protrusion
Chest wall retraction	Diminished air entry
Irritability	Cyanosis (late sign)

Signs of hypoxia in children	
Infants	Children
Lethargy	Restlessness
Bradycardia	Tachypnoea
Hypotension	Tachycardia
Apnoea	Cyanosis
Pallor	Bradycardia (late sign)

Perfusion assessment (paediatric)

Adequate perfusion				
Age	Pulse	BP mmHg	Skin	Conscious state
Newborn	120 – 160	N/A	Pink, warm and dry	Conscious, alert active
Infant	100 – 160	> 70	Pink warm and dry	Conscious, alert active
Small child	80 – 120	> 80	Pink warm and dry	Conscious, alert active
Large child	80 – 100	> 90	Pink warm and dry	Conscious, alert active

Inadequate perfusion				
Age	Pulse	BP mmHg	Skin	Conscious state
Newborn	<100 or >170	N/A	Cool, pale clammy, peripheral cyanosis	Altered conscious state or restless
Infant	< 90 or >170	< 60	Cool, pale clammy, peripheral cyanosis	Altered conscious state or restless
Small child	< 75 or >130	< 70	Cool, pale clammy, peripheral cyanosis	Altered conscious state or restless
Large child	< 65 or >100	< 80	Cool, pale clammy, peripheral cyanosis	Altered conscious state or restless

No perfusion

Absence of palpable pulses

Skin – cool, pale

Unrecordable blood pressure

Unconscious

Conscious state assessment (paediatric)

Assess conscious state using AVPU

- **A**lert
- Responds to **v**oice
- Responds to **p**ain
- **U**nresponsive

Assess conscious state using Glasgow coma scale extended protocol

Glasgow Coma Scale table

Child 4 years or less		Child over 4 years	
Eye opening			
Spontaneously	4	Spontaneously	4
React to speech	3	To voice	3
Reacts to pain	2	To pain	2
No response	1	No response	1
Best verbal response			
Appropriate words or social smile, fixes, follows	5	Orientated	5
Cries but consolable	4	Confused	4
Persistently irritable	3	Inappropriate words	3
Restless and agitated	2	Incomprehensible sounds	2
No response	1	No response	1
Best motor response			
Spontaneous	6	Obeys command	6
Localises to pain	5	Localises to pain	5
Withdraws from pain	4	Withdraws from pain	4
Flexion response	3	Flexion to pain	3
Extension response	2	Extension to pain	2
No response	1	No response	1
Total		Total	

APGAR scoring system

The APGAR score should be conducted one minute after delivery and repeated at five minutes after delivery. A score of:

- 8 – 10 is considered normal
- 4 – 7 has moderate depression and may need respiratory support
- 0 – 3 indicates a newborn requiring resuscitation.

APGAR Score table

	0 points	1 point	2 points
Appearance	Blue, pale	Body pink, extremities blue	Totally pink
Pulse	Absent	< 100	> 100
Grimace	None	Grimaces	Cries
Activity	Limp	Flexion of extremities	Active motion
Respiratory effort	Absent	Slow and weak	Good strong cry

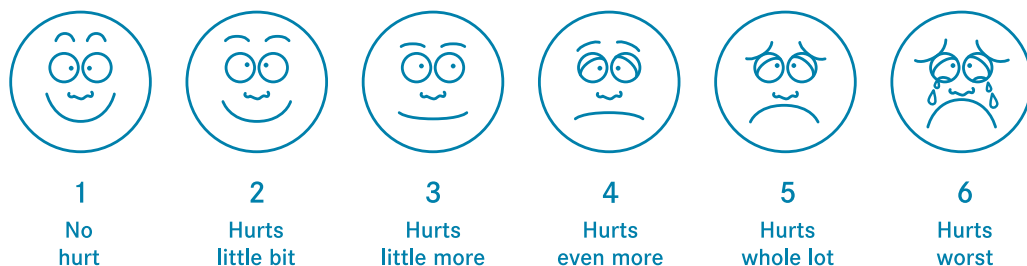
Paediatric pain assessment

Paediatric pain assessment should be appropriate to the developmental level of the child. Pain can be communicated by words, expressions and behaviour such as crying, guarding a body part or grimacing. The **QUESTT** principles of pain (Baker and Wong, 1987) and the following pain rating scales may be helpful in assessing paediatric pain.

- **Q**uestion the child
- **U**se pain rating scales
- **E**valuate behaviour and physiological changes
- **S**ecure parental involvement
- **T**ake cause of pain into account
- **T**ake action and evaluate results

Wong–Baker **FACES** pain rating scale

This scale can be used with young children aged three years and older and may also be useful for adults and those from a non-English speaking background. Point to each face using the words to describe the pain intensity. Ask the child to choose face that best describes own pain and record the appropriate number.



From Wong D.L., Hockenberry-Eaton M., Wilson D., Winkelstein M.L., Schwartz P.: Wong's Essentials of Pediatric Nursing, ed. 6, St. Louis, 2001, p. 1301. Copyrighted by Mosby, Inc. Reprinted by permission.

Verbal numerical rating scale

This scale asks the patient to rate their pain from 'no pain' (0) to 'worst pain possible' (10) and is suitable for use in children over six years of age who have an understanding of the concepts of rank and order. Avoid using numbers on this scale to prevent the patient receiving cues. Some patients are unable to use this scale with only verbal instructions but may be able to look at a number scale and point to the number that describes the intensity of their pain.

Paediatric basic life support

Cardio-respiratory arrest in infants and children is most commonly caused by hypoxaemia, hypotension or both and should be suspected when the child or infant loses consciousness, appears pale or cyanosed or is apnoeic or pulseless. Examples of conditions causing cardiac arrest in infants and children are trauma, drowning, septicaemia, sudden infant death syndrome, asthma, upper airway obstruction and congenital abnormalities of the heart and lung.

Infants and children most commonly arrest into severe bradycardia or asytle and this influences the order of resuscitative actions. Ventricular fibrillation may occur, however, with congenital heart conditions or secondary to poisoning to cardioactive drugs and is often encountered during the course of resuscitation. Respiratory arrest may occur alone, but if treated promptly may not progress to cardio-respiratory arrest.

The basic principles of paediatric life support are similar to those of adults.

Airway

To assess an airway in a newborn, infant or child, the positioning and techniques are similar to those for an adult with the exception that care should be taken to avoid over extension of the neck and head. Noisy breathing, stridor or wheeze, or neck and chest soft tissue retraction on inspiration are signs of significant partial airway obstruction.

To position the head and neck to maintain an open airway:	
Newborn and infants	Head and neck should be placed in the neutral position, avoiding additional neck flexion and head extension.
Children	Use neck flexion and head extension with caution in the younger child. If necessary, use chin lift or jaw thrust, to clear the airway.

Breathing

If spontaneous ventilation is not present, an appropriately sized oropharyngeal airway should be inserted and assisted ventilation should be commenced immediately using supplemental oxygen. Effective airway control and adequate ventilation with oxygen supplementation is the keystone of paediatric resuscitation.

Circulation

Commence external cardiac compression (ECC) if a pulse (carotid, brachial or femoral) is not palpable, or is less than 60 beats per minute (infants) or less than 40 per minute (children)

External cardiac compression (ECC)

Depth of compression

Approximately one third the depth of the chest for all age groups. Approximately 50 per cent of a compression cycle should be devoted to compression of the chest and 50 per cent to relaxation.

Method of compression

Newborn and infant:

ECC for a newborn or infant can be performed with two fingers or by a two-thumb technique. In this latter technique, the hands encircle the chest and the thumbs compress the sternum. This is a better technique. The two-thumb is the preferred technique for two-rescuers but care should be taken to avoid restricting chest expansion during inspiration. The two-finger technique should be used by a single rescuer in order to minimise the transition time between ECC and ventilation.

Young child:

Two-handed technique as for adults.

Ratios of compressions to ventilations

Newborn	
Single rescuer	Three compressions to one ventilation
Two rescuers	Three compressions to one ventilation
Rate	Approximately 120 compressions per minute
Infants and children	
Single rescuer	30 compressions to two ventilations
Two rescuers	15 compressions to two ventilations
Rate	Approximately 100 compressions per minute

Cardiac arrest (paediatric)– Asystole or pulseless electrical activity

Manual monitor or defibrillation

1. Initial management
 - Confirm unconscious and no pulse clinically
 - Activate emergency ambulance response (ring 000)
 - Immediately commence effective CPR (30 compressions to two breaths) if no signs of circulation or pulse rate < 60 (infants) or < 40 (children)
 - Continue effective CPR and check brachial pulse or rhythm every two minutes
 - If another rhythm develops at any stage during resuscitation, then reassess patient and manage as per relevant protocol
 - Await emergency ambulance arrival
2. If return of spontaneous circulation (ROSC)
 - Ventilate at an appropriate minute rate for the child's age at a tidal volume of approximately 10 ml/kg

Cardiac arrest (paediatric)– Ventricular fibrillation or ventricular tachycardia

Manual monitor or defibrillation

1. Initial management
 - Confirm unconscious and no pulse clinically
 - Activate emergency ambulance response (ring 000)
 - Commence effective CPR (insert oral airway and commence ventilations with oxygen while preparing to defibrillate and during defibrillator charging)
 - Defibrillate single shock – 2 joules/ kg (monophasic or biphasic)
 - Immediately recommence CPR without pulse or rhythm check
 - Perform CPR for two minutes and then check pulse or rhythm

2. VF or pulseless VT remains
 - Defibrillate single shock – 4 joules/ kg (monophasic or biphasic)
 - Immediately recommence CPR without pulse or rhythm check
 - Perform CPR for two minutes and then check pulse two rhythm

3. VF or pulseless VT remains
 - Continue effective CPR and recheck pulse or rhythm every two minutes
 - Continue defibrillation every two minutes using a single shock strategy (4 joules/ kg) and immediately recommence CPR without pulse or rhythm check after each shock
 - Await emergency ambulance support

4. If return of spontaneous circulation (ROSC)
 - Ventilate at an appropriate minute rate for the child's age at a tidal volume of approximately 10 ml/ kg

Notes:

CPR must not be interrupted for more than 10 seconds during rhythm or pulse checks.

If unsure if pulse present then assume it isn't and immediately commence or recommence CPR.

Rescuers should changeover performance of external cardiac compressions every two minutes (during rhythm checks) to avoid fatigue and subsequent impact on CPR performance. Changeover time should not exceed five seconds.

A standard AED can be used on a child eight years or older (over approximately 25 kg) in cardiac arrest. Some AEDs may also be used for children aged 1-8 years who have no signs of circulation where specifically recommended by the manufacturer. The use of AEDs in children less than one year of age is not recommended. See adult AED protocol for paediatric AED treatment algorithm.

Appendix 1: Approach to a patient

Low-acuity patient

1. Locate and identify patient

- Locate patient to be transported at health service or at residence
- Introduce yourself to patient
- Provide patient with organisation contact details
- If patient not cognitively impaired, confirm patient's identity and destination with patient
- If patient cognitively impaired, tell them who you are and where you are taking them
- Confirm patient's identity and destination with health service staff caring for patient



2. Ensure suitability for transport by low-acuity NEPT

- Obtain information relating to reason for transport
- Ascertain that patient does not require any monitoring or management while being transported
- Identify if patient requires oxygen for transport and ensure this is available
- If working with as a single officer crew:
 - ascertain if patient is able to walk onto vehicle and lie down unaided or
 - assess risk factors involved with assisting patient into vehicle



3. Load and transport patient

- Load patient into vehicle
- Undertake transport to destination

Medium-acuity patient

1. Locate and identify patient

- Locate patient to be transported at health service or at residence
- Introduce yourself to patient, and provide patient with organisations details
- If patient not cognitively impaired, confirm patient's identity and destination with patient
- If patient cognitively impaired, let them know who you are and where you are taking them
- Confirm patient's identity and destination with health service staff caring for patient



2. Ensure suitability for transport by medium-acuity NEPT

- Obtain information relating to reason for transport
- Obtain relevant medical history from staff caring for patient and relevant documentation to be provided to destination facility
- Identify patient monitoring and management needs for time during transport
- Establish baseline vital signs and record on the PCR
- Establish that vital signs are within normal limits and patient has been assessed by a medical practitioner as stable for transport
- If IV infusion running ensure all details of infusion(s) are obtained and recorded on documentation
- If patient is suffering with an acute mental illness, ensure all criteria for transporting a mental health patient are met
- Obtain name of authorising transport medical officer



3. If patient suitable for medium-acuity NEPT

- Load patient onto vehicle
- Undertake transport to destination
- Monitor patient's condition enroute
- Provide handover and any documentation to the receiving health professional

3. If not patient suitable for medium-acuity NEPT

- Inform sending facility patient requires an alternate level of care
- Contact communications centre and await further instructions
- Do not transport patient

High-acuity patient

1. Locate and identify patient

- Locate patient to be transported at health service
- Introduce yourself to patient and escort and provide patient with organisations details
- If patient not cognitively impaired, confirm patient's identity and destination with patient
- If patient cognitively impaired, let them know who you are and where you are taking them
- Confirm patient's identity and destination with health service staff



2. Ensure suitability for transport by high-acuity NEPT

- Confirm that patient has been assessed by sending physician that transport using lights and sirens will not be required
- Obtain relevant medical history from staff caring for patient and relevant documentation to be provided to destination facility
- Identify patient monitoring and management during transport and instruction regarding any required interventions
- Obtain additional equipment or drugs that are required for transport from sending facility if needed
- Establish that vital signs are within acceptable limits
- If IV infusion running ensure all details of infusion(s) are obtained and recorded on documentation
- Ensure safe restraint of the escort and any equipment



3. If patient not suitable for high-acuity NEPT

- Inform sending facility an emergency ambulance will be required for transport
- Contact your communications centre and await further instructions
- Do not transport patient

3. If patient suitable for high-acuity NEPT

- Load patient onto vehicle
- Ensure escort is seated and restrained
- Ensure all equipment is restrained
- Undertake transport to destination

Appendix 2: Adult major trauma criteria

Vital signs (major trauma if any of the following present)

Respiratory rate	<8 or > 30/ min
Hypotension	< 100 mmHg systolic
Pulse	<50 or > 120/ min
Conscious state	GCS < 13
Oxygen saturation	<90% on air

or

Injuries (major trauma if any one of the following present)

- Penetrating injuries to head, neck, chest, abdomen, pelvis, axilla or groin
- Blunt injuries
 - Significant injuries to a single region (head, neck, chest, abdomen, pelvis, axilla or groin)
 - Any injuries to two or more of head, neck, chest, abdomen, axilla or groin
- Specific injuries:
 - Limb amputations or limb threatening injury
 - Suspected spinal cord injury
 - Burns > 20 per cent body surface area or airway
 - Serious crush injury
 - Major compound fracture or open dislocation
 - Fracture of two or more of femur/ tibia/ humerus
 - Fracture of pelvis

or

Mechanism of injury

- Ejection from vehicle
- Motor/ cyclist impact > 30 km/ hr
- Fall from height > 3 metres
- Struck on head by falling object > 3 metres
- Explosion
- MCA > 60 km/ hr
- Vehicle rollover
- Fatality in same vehicle
- Pedestrian
- Prolonged extrication > 30 minutes

Paediatric major trauma criteria

Vital signs (major trauma if any of the following present)

	Newborn <2 weeks	Infant <1 year	Child 1-8 years	Large child 9-14 years
Respiratory rate/min	<40 >60	<20 or >50	<20 or >35	<15 or >25
Hypotension mmHg	N/a	<60	<70	<80
Pulse/min	<100 or >170	<90 or >170	<75 or >130	<65 or >100
Conscious state	GCS < 15	GCS < 15	GCS < 15	GCS < 15
Oxygen saturation	N/a	N/a	N/a	<90% on air
Skin	Cold/ pale/ clammy (all ages)			

or

Injuries (major trauma if any one of the following present)

- Penetrating injuries to head, neck, chest, abdomen, pelvis, axilla or groin
- Blunt injuries
 - Significant injuries to a single region (head, neck, chest, abdomen, pelvis, axilla or groin)
 - Any injuries to two or more of head, neck, chest, abdomen, axilla or groin
- Specific injuries:
 - Limb amputations/ limb threatening injury
 - Suspected spinal cord injury
 - Burns > 20 per cent body surface area or airway
 - Serious crush injury
 - Major compound fracture or open dislocation
 - Fracture of two or more of femur/ tibia/ humerus
 - Fracture of pelvis

or

Mechanism of injury

- Ejection from vehicle
- Motor/ cyclist impact > 30 km/hr
- Fall from height > 3 metres
- Struck on head by falling object > 3 metres
- Explosion
- MCA > 60 km/hr
- Vehicle rollover
- Fatality in same vehicle
- Pedestrian
- Prolonged extrication > 30 minutes

Appendix 3: Non-emergency patient transport of people with mental illness

Key message

The *Non-Emergency Patient Transport Act 2003* and the Non-Emergency Patient Transport Regulations 2005 govern non-emergency patient transport (NEPT).

NEPT providers cannot transport a person to an approved mental health service under a provision of the *Mental Health Act 1986* or the *Crimes (Mental Impairment and Unfitness to be Tried) Act 1997*.

NEPT providers can transport people from one mental health service to another mental health service or from a mental health service to the person's place of residence, if the requirements of the NEPT regulations are met.

Purpose and scope

To provide information about the law and policy requirements governing when non-emergency patient transport (NEPT) of people with mental illness is permitted.

This circular does not consider other forms of transport. Many people can be safely transported in a private vehicle driven by a family member, carer or friend, or an agency vehicle driven by a mental health professional. Where a person cannot be safely transported by these means, it may be necessary to consider NEPT or to call for an ambulance. Decisions about transport should be based on assessments of a person's immediate treatment needs, any risks and the availability of alternate transport options.

Background

The *Non-Emergency Patient Transport Act 2003* ('the NEPT Act') and the Non-Emergency Patient Transport Regulations 2005 ('the NEPT regulations') came into force on 1 February 2006.

NEPT providers are trained to provide safe transport of medically stable people who will not require significant medical intervention during transport. The NEPT service is not an emergency ambulance service and will not transport people who require urgent medical evaluation or treatment.

NEPT services

Introduction

The NEPT regulations prescribe standards and requirements for NEPT services and establish three classes of transport service: low, medium and high-acuity patient transport. Each class of transport has different standards and requirements.

People with a diagnosed mental disorder must be transported as either **medium or high-acuity** patients. The clinician authorising the referral to NEPT must decide the level of care that will be required during transport (see 'Referrals to NEPT' below). Division 3 of the NEPT regulations governs the transport of medium acuity patients and Division 4 of the NEPT regulations governs the transport of high-acuity patients.

Division 5 of the NEPT regulations imposes additional requirements when a person receiving treatment for a mental disorder is to be transported from one health service to another health service or from a health service to the person's place of residence. Division 5 requires that a registered medical practitioner at the sending health service must have assessed the person as stable and suitable for transport. The person must not require restraint or sedation during transport.

Where sedation has been administered prior to transport, the person must be awake and able to follow commands at least 30 minutes after sedation has been administered. NEPT cannot be used if these requirements are not met.

Circumstances when NEPT is permitted

NEPT may be used when a person receiving mental health services on a voluntary basis requires transport, subject to the requirements of the NEPT regulations.

NEPT may also be used to transport people receiving mental health services on an involuntary basis ('involuntary patient'), but in more limited circumstances. For example, Division 5 of the NEPT regulations does not apply to any transport that is authorised by a provision of the *Mental Health Act 1986* or the *Crimes (Mental Impairment and Unfitness to be Tried) Act 1997*. This means NEPT can be used to transport an involuntary patient between health services or from a health service to the person's home under Division 5, but not if the transport is being authorised by a provision in one of these acts (see 'Circumstances when NEPT is not permitted' below). Some common scenarios when NEPT providers may transport involuntary patients are:

- the transfer of an involuntary patient from one approved mental health service to another service (s. 39 *Mental Health Act*)
- the transfer of a person subject to an involuntary treatment order (Schedule 6), which has not yet been confirmed, from an approved mental health service to another service (s. 39 *Mental Health Act*). For example, a person is placed on an involuntary treatment order in the emergency department of a public hospital that is proclaimed as an approved mental health service, but it is decided to transfer the person to another approved mental health service for admission
- the transport of a person discharged on a community treatment order from an approved mental health service to a community care unit or an aged persons residential service (r. 15 NEPT regulations).

See also table page 72.

Circumstances when NEPT is not permitted

The *Mental Health Act* and the *Crimes (Mental Impairment and Unfitness to be Tried) Act* specify circumstances when a person may be taken from the community to an approved mental health service for the purpose of involuntary treatment.

The Metropolitan Ambulance Service, Rural Ambulance Service and the Alexandra and District Ambulance Service ('public ambulance service providers') have primary responsibility for the transport of people with mental illness who require involuntary treatment in an approved mental health service. If clinical transport is required in these circumstances, a public ambulance service provider should provide that transport in an ambulance. Importantly, ambulance paramedics employed by public ambulance service providers are 'prescribed persons'¹ under the *Mental Health Act* and, as such, have necessary powers to ensure a person can be safely transported to an approved mental health service.²

NEPT providers should not provide transport where that transport is being authorised by a provision in one these acts. For example, NEPT should not be used when a:

- request (Schedule 1) and a recommendation (Schedule 2) for involuntary treatment are completed in the community. A NEPT provider should not take the person to an approved mental health service.
- person subject to a request (Schedule 1) and a recommendation (Schedule 2) is taken to an approved mental health service (including an emergency department of a public hospital that is proclaimed as an approved mental health service) or is recommended in an approved mental health service. It is decided to transfer the person to another approved mental health service without admitting the person. A NEPT provider cannot transport the person to the receiving approved mental health service.³
- request (Schedule 1) and authority to transport (Schedule 4) are completed in the community. A NEPT provider cannot transport the person to an approved mental health service.
- person's community treatment order has been revoked. The person is deemed to be 'absent without leave' by the *Mental Health Act* until they return to an approved mental health service. A NEPT provider cannot apprehend and take the person to an approved mental health service.

See also table page 72.

NEPT and clinical escorts

As discussed, the *Mental Health Act* specifies circumstances when a person may be taken from the community to an approved mental health service for the purpose of involuntary treatment. The *Mental Health Act* empowers a 'prescribed person' to take a person to an approved mental health service in these circumstances.

If clinical transport is required to take a person to an approved mental health service, a public ambulance service provider, rather than NEPT, should provide it. Any decision to send a clinical escort with the transport should be based on clinical grounds, having regard to the person's clinical needs and the need to protect the safety of the person and others. The presence of a clinical escort who is a 'prescribed person' does not change the transport requirements.

Where NEPT is permitted, the NEPT regulations provide for the type and level of escort required.

Referrals to NEPT

An appropriate health professional must approve all referrals to a NEPT service. In the case of medium or high-acuity patients, this should be a registered medical practitioner.⁴

As stated, people with a diagnosed mental disorder must be transported as either medium or high-acuity patients and, therefore, a registered medical practitioner should approve all referrals to a NEPT service.

Further information

Further information can be obtained from the Department of Human Services' non-emergency patient transport information website www.health.vic.gov.au/nept.

Information about ambulance transport of people with mental illness is available from the Department of Human Services' ambulance website www.health.vic.gov.au/ambulance/transport.pdf.

Electronic copies of the NEPT Act and Regulations and the *Mental Health Act* can be viewed or downloaded from the legislation and parliamentary documents website www.dms.dpc.vic.gov.au.

About program management circulars

The information provided in this circular is intended as general information and not as legal advice. If mental health staff have queries about individual cases or their obligations under the NEPT Act or regulations or the *Mental Health Act*, service providers should obtain independent legal advice.

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Appendix 3 references

1 A prescribed person is:

- a member of the police force
- an ambulance officer
- a member of a class of prescribed health service providers. In summary, this class includes registered medical practitioners, registered nurses, registered psychologists, social workers and occupational therapists employed by public mental health services (refer to s. 7 *Mental Health Act* and the *Mental Health Regulations 1998* for the full definition).

2 A 'prescribed person' may, with such assistance as is required and such force as may be reasonably necessary, enter any premises in which the prescribed person has reasonable grounds for believing that the person may be found and if necessary to enable the person to be taken safely, use such restraint as may be reasonably necessary (s. 9B *Mental Health Act*).

3 However, if the person is placed on an involuntary treatment order (Schedule 6), the person becomes a patient of the approved mental health service and can then be transferred to another approved mental health service by either public ambulance service or NEPT providers (refer 'common scenarios where NEPT transport of involuntary patients is permitted', above).

4 Refer *Non-emergency patient transport services – clinical practice protocols manual* (Department of Human Services, February 2006) at www.health.vic.gov.au/nept. Note that this protocol is currently under review.

Summary of Mental Health Act 1986 (MHA) and Crimes (Mental Impairment and Unfitness to be Tried) Act 1997 (CMIA) provisions relevant to non-emergency patient transport

Relevant legislation	Legislation description	Primary responsibility for transport
Common circumstances when NEPT is not permitted		
ss. 9(5)(b) & 12(2)(a) MHA See also ss. 93E, 93F, 93G & 93H MHA for cross border provisions	Request (Schedule 1) and Recommendation (Schedule 2) completed for a person. <ul style="list-style-type: none"> • Person to be taken to an approved mental health service; or • Person to be taken from one approved mental health service to another approved mental health service; or • Person to be taken from a health service to an approved mental health service. 	Public ambulance services
s. 9A MHA	Request (Schedule 1) and Authority to Transport (Schedule 4) completed for a person. <ul style="list-style-type: none"> • Person to be taken to an approved mental health service. 	Public ambulance services
ss. 12(6) & 12AA(7) MHA	Person subject to an Involuntary Treatment Order (Schedule 6) is waiting in the community to be examined by an authorised psychiatrist, who must decide whether to confirm the order or not. <ul style="list-style-type: none"> • At any time before the examination, a medical practitioner employed by an approved mental health service or a mental health practitioner can order the person to be taken to an approved mental health service. 	Public ambulance services
s. 12AC(4)(b) MHA	Person subject to an Involuntary Treatment Order (Schedule 6) is waiting in the community to be examined by an authorised psychiatrist, who must decide whether to confirm the order or not. <ul style="list-style-type: none"> • If the authorised psychiatrist confirms the order at the examination, he or she can order the person to be taken to an approved mental health service. 	Public ambulance services
s. 43 MHA See also ss. 93K & 93L MHA for cross border transport	Involuntary patient who is absent without leave or on a revoked community treatment order . <ul style="list-style-type: none"> • Person to be apprehended and taken to an approved mental health service. 	Public ambulance services
ss. 53 & 53AD MHA	Security or forensic patient who is absent without leave . <ul style="list-style-type: none"> • Person to be apprehended and taken to an approved mental health service. 	Public ambulance services
s. 30 CMIA	Emergency apprehension of person subject to a non-custodial supervision order . <ul style="list-style-type: none"> • Person to be apprehended and taken to an approved mental health service. 	Public ambulance services
Common circumstances when NEPT is permitted, subject to Division 5 of the NEPT Regulations		
s. 39 MHA r. 15 NEPT Regulations 2005	Person subject to an Involuntary Treatment Order (Schedule 6) in an approved mental health service (whether an authorised psychiatrist has confirmed the order or not). <ul style="list-style-type: none"> • Person to be transferred to another approved mental health service. 	Public ambulance services or NEPT services
r. 15 NEPT Regulations 2005	Person subject to an Involuntary Treatment Order (Schedule 6) in an approved mental health service (whether an authorised psychiatrist has confirmed the order or not). <ul style="list-style-type: none"> • Person to be transported to a health service or the person's residence in the community. 	Public ambulance services or NEPT services

Appendix 4: Risk assessment for loading a patient into a vehicle – single operator

Prior to loading a patient into a vehicle utilising a single operator, the following procedure must be followed.

Consider

- Posture
- Movements
- Forces to be exerted
- Any other environmental conditions that may present a risk of musculoskeletal disorder to the employee

At risk of musculoskeletal disorder

Not at risk of musculoskeletal disorder

Do not undertake loading of patient

Load and transport patient

Seek assistance from sending and receiving facilities to ensure risk of musculoskeletal injury is removed

If assistance available load and transport patient