

St John Ambulance NT Clinical Practice Manual

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A fully referenced version of this document can be accessed via SJANT Intranet.

INTRODUCTION

[Authority to Practice](#)

[Role of the paramedic](#)

[Basic principles of management](#)

[Infection control](#)

[Staff support](#)

[Clinical scope of practice levels](#)



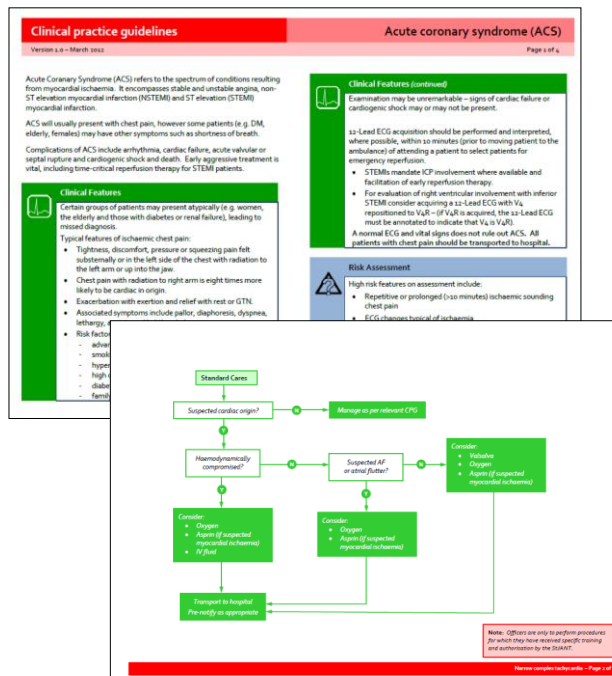
The SJANT aims to provide high standards of emergency treatment, patient care and transportation for sick and injured people. The CPM reflects contemporary standards of clinical practice in the pre-hospital environment. It includes assessment and treatment information based on expert evidence.

[Home](#)

The CPM is divided into **three (3)** parts:

- clinical practice guidelines (CPGs)
- clinical practice procedures (CPPs)
- drug therapy protocols (DTPs)

CPGs



DTPs

Drug therapy protocols

Version 1.0 - March 2012

Salbutamol

Page 1 of 1

Drug class
Beta-adrenergic agonist

Pharmacology
Salbutamol is a direct acting sympathomimetic agent which mainly affects Beta₂ (β₂) - adrenoreceptors. It primarily acts as a bronchodilator but also has inotropic and chronotropic actions. Additionally it lowers serum potassium levels through its direct stimulation of the sodium/potassium ATPase pump, drawing potassium into cells.

Metabolism
Hepatic with excretion by the kidneys.

Indications
• Bronchospasm
• Suspected hyperkalaemia (AV dissociation)

Contraindications
• KSAR
• Patients < 2 years

Precautions
• Acute pulmonary oedema
• Ischaemic heart disease

Side effects
• Anxiety
• Tachyarrhythmias
• Tremors
• Hypokalaemia and metabolic acidosis

Presentation
• Nebule, 5 mg/2.5 mL salbutamol

Special notes
• Different preparations of salbutamol are used for nebulised and IV routes. The appropriate administration of nebulised salbutamol solution IV will cause serious adverse effects.
• For patients with COVID, nebulised salbutamol is to be delivered via nebuliser mask at a rate of 6 L/minute. For all other patients 8 L/minute is appropriate.
• The manufacturer recommends that nebulisers must be stored within the foil packet and are to be discarded three months after opening. The date that the foil packet is opened should then be clearly marked on the packet.

Adult dosages (continued)
Suspected hyperkalaemia (with ORS widening AND/OR AV dissociation)
NEB 20 mg
Single dose only

Paediatric dosages
Bronchospasm
2-12 years: 0.1 mg
Repeated PRN
No maximum dose
2-12 years: 0.1 mg/kg
Single dose not to exceed 20 mg
Repeated once at 10 minutes.

Adult dosages
Bronchospasm
NEB 5 mg
Repeated PRN
No maximum dose
IV 20 mg
Repeated at 10 minute intervals
Total maximum dose 5 mg.
INF 10 mg
Repeated at 10 minute intervals
Total maximum dose 5 mg.
Contraindications and approval required in all situations.
Concomitant infusion of adrenaline (10 mg/100 mL) and nebulised 10 mg/100 mL adrenaline (10 mg/100 mL) every 3-5 minutes as determined by patient's respiratory status.
Synergy preparation: Mix 2 mg/10 mL of salbutamol with 4 mL of sodium chloride 0.9% in 50 mL syringe to achieve 2 mg/100 mL concentration of 10 mg/100 mL. Ensure all syringes are appropriately labelled.

Notes:
SJANT officers are not authorised to administer salbutamol to paediatric patients presenting with bronchospasm under the age of 2 years.
SJANT officers are not authorised to administer salbutamol to paediatric patients presenting with suspected hyperkalaemia with ORS widening AND/OR AV dissociation.

CPPs

Clinical practice procedures

Version 1.0 - March 2012

NEANN immobilisation & extrication jacket

Page 1 of 4

Authorisation to practice
NIEJ

Procedure
• Explain the procedure to the patient and gain consent.
• Prepare the NIEJ - remove from the carry case and unroll. Set aside the lumbar support, head supports and groin pads.

Indications
• To facilitate safe

Contraindications
• When the patient the NIEJ will delay appropriate hos

Precautions
• Chest straps that respiratory effort
• Groin straps nee and neck move
• Incorrect head p hyperextension
• Immobilising the section may cau

Procedure (continued)
• Slide the NIEJ round the back of the patient, so that it is no higher than the top of the patient's head. If this is not possible, position jacket firmly in the patient's axilla.
• Ensure the chest flaps of the device are snug under the patient's arms. (Adjust carefully for children and pregnant patients.)
• Release the groin straps from back of the NIEJ and hold both straps together, ensuring they are not twisted. Pull the groin straps down either side between the patient and the chest flap. Slide both straps under the legs and buttocks until they are in the gluteal fold. Pull groin straps and leave.
• Raise the patient's arms to shoulder height, then position the chest flaps against the chest. Apply straps from top to bottom (green, yellow, then red).
• The green straps should cross the chest, unless the patient has chest injuries or breathing difficulty. For the latter cases, the straps can run vertically.
• For patients that need to be lifted using the NIEJ, slide the blue groin pads onto each black leg strap.
• Connect the leg straps to the buckles on the same side and tighten by pulling.
• Recheck straps to confirm comfortable but firm fit.
• Use the appropriate amount of head pads to prevent hyperextension.

Notes:
The NEANN immobilisation and extrication jacket (NIEJ) is a device used to minimise spinal movement and

The **CPGs** cover a range of clinical conditions and situations commonly encountered by paramedics in the pre-hospital environment. In the case of a clinical condition, each CPG provides:

- information regarding a typical clinical presentation
- the diagnostic pattern associated with the relevant condition
- guidelines for clinical management.

Clinical practice guidelines

Version 1.0 – March 2012

Eye injuries are common and may be serious despite a benign appearance. All patients with suspected eye trauma and patients who have an ALOC should have their eyes assessed and basic eye protection precautions implemented.

General management principles include:

- Irrigation with water or saline for chemical or biological fluid exposure, foreign body or thermal burns
- Protect eye with shield (cardboard cone or Styrofoam cup)
- Antiemetic
- Position patient head up.

Eye injuries

Page 1 of 2

Clinical Features (continued)

- Penetrating eye injury:
 - abnormally shaped or collapsed globe
 - obvious laceration or presence of prolapsed tissue
 - hyphema
- Blunt eye injury:
 - orbital injury
 - traumatic mydriasis
 - hyphema
 - occasionally retinal detachment
- Retinal detachment:
 - can occur spontaneously or months after an injury
 - history of light flashes
 - presence of floating black specks
 - curtain-like narrowing of peripheral vision
- Flash burns:
 - history of unprotected exposure to welding flash or sun lamp
 - pain develops several hours following exposure
 - foreign body sensation within the eyes

Clinical Features

- Significant eye injury may be present, despite normal vision and minimal symptoms.
- If eyelid oedema makes opening of the lids difficult – attempt gentle assessment and document findings.
- General symptoms:
 - pain or sensation of 'grittiness' in the eye
 - redness

Additional information

- With most eye injuries the priority is initial stabilisation of the patient, protection of the eye and transport to an appropriate facility (preferably one with an ophthalmologist).
- If possible, patients with eye injuries should have a visual acuity test completed:
 - Test one eye at a time.
 - Initially test the patient's ability to count fingers (question patient on clarity of vision).
 - Should the patient be unable to complete this, test for hand motion, or light perception.
 - Do not delay initial treatment to perform visual acuity test.
- Administration of an antiemetic following penetrating or blunt eye injury is highly recommended. Vomiting significantly increases intraocular pressure and should be avoided.
 - It is recommended that ondansetron is used in these circumstances especially if opioid pain relief is given.
 - It is highly recommended that medications such as maxolon are avoided, due to the risk of dystonic reactions occurring and perpetuating the injury.
- Routine padding of eyes is no longer recommended. If padding is used, it must not place pressure on the globe. Do not pad an eye with a penetrating injury.
- Reducing time for irrigation following chemical exposure is beneficial.
- Patients transported by air may have special requirements. Consult with receiving facility or OCC as to flight restrictions.
- When flushing eyes, place injured/damaged eye down and flush from medial aspect.
- Eye injuries associated with capsaicin spray should be irrigated until pain subsides.
- Preferred positioning for patients with eye injuries is supine with head elevated.

Standard Cares

Blunt or penetrating?

Remove contact lens

Chemical exposure?

Irrigate eye with H₂O or sodium chloride 0.9% for < 15 minutes.

If foreign body present, attempt removal with a moist cotton bud.

Transport to hospital. Pre-notify as appropriate.

Additional information

- Leave penetrating item in place and protect the eye with a raised shield (e.g. cardboard cone).
- Do not pad the eye.
- Irrigate the eye and both lids with H₂O or sodium chloride 0.9% for ≥ 30 minutes.
- If capsaicin spray, continue irrigation until pain subsides.

Note: Officers are only to perform procedures for which they have received specific training and authorisation by SJANT.

Eye injuries – Page 2 of 2

The **CPPs** cover specific clinical procedures that may be performed as part of the clinical management of a patient. The use of specific items of equipment carried by SJANT ambulances is also addressed through relevant CPPs.

Clinical practice procedures

Version 1.0 – March 2012

Authorisation to practice

Intramuscular injection

ACP¹ ACP² ACP³ ACP⁴

Intramuscular (IM) injections are a method of administering a drug into a muscle.

Indications

- The administration of medications via the IM route.

Contraindications

- Evidence of infection or trauma at the injection site.

Complications

- Pain
- Bleeding

Intramuscular injection

Page 1 of 2

Additional Information

- The speed of absorption is faster than the subcutaneous route, owing to the muscle tissue having a greater blood supply.
- An advantage of the IM route as opposed to the subcutaneous route is that the muscle can accommodate a larger volume of fluid being injected, i.e. 3-5 mL in an adult in the vastus lateralis and approximately 2 mL in a child, also in the vastus lateralis.
- For any calculated IM volumes that exceed 2 mL, the dose must be split and administered at different IM sites (does not apply to Box Jellyfish antivenom – refer to DTP).
- The use of VanishPoint® syringes is highly recommended.

Approved injection sites

The deltoid muscle for an IM injection

Clinical practice procedures

Version 1.0 – March 2012

Authorisation to practice

NIEJ

The NEANN immobilisation and extrication jacket (NIEJ) is used to minimise spinal movement and assist with extrication from a vehicle.

Indications

- To facilitate safe extrication from a confined space.

Contraindications

- When the patient is actual time critical and the NIEJ will delay transport to a trauma or appropriate hospital.

Precautions

- Chest straps that are too tight tend to interfere with respiratory effort.
- Groin straps need to be firmly secured to the patient's hips and neck movement during extrication.
- Incorrect head padding can lead to C-spine hyperextension or hyperflexion.
- Immobilising the head without properly securing the neck section may cause C-spine movement.

NEANN immobilisation & extrication jacket

Page 1 of 4

Procedure (continued)

- Slide the NEJ round the back of the patient, so that it is no higher than the top of the patient's head. If this is not possible, position jacket firmly in the patient's armpits.
- Ensure the chest flaps of the device are snug under the patient's arms. (Adjust carefully for children and pregnant patients.)
- Release the groin straps from back of the NIEJ and hold both straps together, ensuring they are not twisted. Pull the groin straps down either side between the patient and the chest flap. Slide both straps under the legs and buttocks until they are in the gluteal fold. Pull groin straps and leave.
- Raise the patient's arms to shoulder height, then position the chest flaps against the chest. Apply straps from top to bottom (green, yellow, then red).
- The green straps should cross the chest, unless the patient has chest injuries or breathing difficulty. For the latter cases, the straps can run vertically.
- For patients that need to be lifted using the NIEJ, slide the blue groin pads onto each black leg strap.
- Connect the leg straps to the buckles on the same side and tighten by pulling.
- Recheck straps to confirm comfortable but firm fit.
- Use the appropriate amount of head pads to prevent hyperextension.

NEANN immobilisation and extrication jacket – Page 2 of 4

Uncontrolled when printed

Introduction – Page 2 of 9

The **DTPs** provide directions for the use of pharmacological agents that have been authorised for use by SJANT paramedics when performing duties for SJANT. A DTP exists for each pharmacological agent and provides parameters for its use in the pre-hospital environment.

To further assist SJANT paramedics, a *7 in Tablet PC* has been issued to each paramedic. The Tablet PC includes a PDF version of the each part of the CPM along with other reference material and videos that may be helpful in the field. The information contained on the Tablet PC will be up-dated from time. Paramedics are individually responsible for ensuring their Tablet PC are kept up-to-date.

Drug therapy protocols

Version 1.0 – March 2012

Page 1 of 2

Salbutamol

Drug class
Beta-adrenergic agonist

Pharmacology
Salbutamol is a direct acting sympathomimetic agent which mainly affects Beta 2 (β₂) – adrenoceptors. It primarily acts as a bronchodilator but also has inotropic and chronotropic actions. Additionally it lowers serum potassium levels through its direct stimulation of the sodium/potassium ATPase pump, drawing potassium into cells.

Metabolism
Hepatic with excretion by the kidneys.

Indications

- Bronchospasm
- Suspected hyperkalaemia (with QRS widening AND/OR AV dissociation)

Contraindications

- KSAR
- Patients < 2 years

Precautions

- Acute pulmonary oedema
- Ischaemic heart disease

Side effects

- Anxiety
- Tachyarrhythmias
- Tremors
- Hypokalaemia and metabolic acidosis

Presentation

- Nebule, 5 mg/2.5 mL salbutamol
- Ampoule, 500 mcg/1 mL salbutamol

Onset	Duration	Half-life (elimination)
2 – 5 minutes (NEB)	16 – 60 minutes (NEB)	1.6 hours
1 – 3 minutes (IV)	10 – 20 minutes (IV)	

Schedule

- S4 (Restricted drugs)

Routes of administration

Nebuliser (NEB) P ACP ICP

Intravenous injection (IV) ICP

Intravenous infusion (IV/INF) R

Special notes

- Different preparations of salbutamol are used for nebulised and IV routes. The inappropriate administration of nebuliser salbutamol solution IV will cause serious adverse effects.
- For patients with COPD, nebulised salbutamol is to be delivered via nebuliser mask at a rate of 6 L/minute. For all other patients 8 L/minute is appropriate.
- The manufacturer recommends that nebulisers must be stored within the foil packet and are to be discarded three months after opening. The date that the foil packet is opened should then be clearly marked on the packet.

Adult dosages

Bronchospasm

Route	Dose	Frequency	Maximum Dose
NEB	5 mg	Repeated PRN	No maximum dose
IV	250 mcg	Repeated at 5 minute intervals	Total maximum dose 1 mg.
INF	MRC consultations and approval required in all situations. Commence infusion at 5 mcg/minute (5 mL/hour) and increase by 1.5 mcg/minute (1.5 mL/hour) every 3 – 5 minutes as determined by patients respiratory status. Syringe preparation: Mix 3 mg (6 mL) of salbutamol with 44 mL of sodium chloride 0.9% in a 50 mL syringe to achieve a final concentration of 60 mcg/mL. Ensure all syringes are appropriately labelled.		

Adult dosages (continued)

Suspected hyperkalaemia (with QRS widening AND/OR AV dissociation)

Route	Dose	Frequency	Maximum Dose
NEB	20 mg	Single dose only	

Paediatric dosages

Bronchospasm

Route	Dose	Frequency	Maximum Dose
NEB	≥ 2 years - 5 mg	Repeated PRN	No maximum dose
IV	≥ 2 years - 5 mcg/kg	Single dose not to exceed 250 mcg. Repeated once at 10 minutes.	

Note:
SJANT officers are not authorised to administer salbutamol to paediatric patients presenting with bronchospasm under the age of 2 years.
SJANT officers are not authorised to administer salbutamol to paediatric patients presenting with suspected hyperkalaemia with QRS widening AND/OR AV dissociation

Salbutamol - Page 1 of 2



AUTHORITY TO PRACTICE

The SJANT Senior Medical Advisor or Medical Director may authorise an officer or officers of a particular class or category, to perform paramedic duties at a level that is required to fulfil a service provision agreement between SJANT and the Northern Territory Government. SJANT Photographic Authority to Practice Cards shall be visible and worn at all times by officers whilst on duty.

The Authority to Practice provides that an authorised officer, when providing ambulance services for SJANT, may take any reasonable measure to:

- request any person to take all reasonable measures to assist the authorised officer
- administer such basic life support and advanced life support procedures as are consistent with the training, scope and qualifications of the authorised officer
- at all times an authorised officer will adhere to the guidelines as specified within the CPM

What constitutes 'reasonable' in any situation is that which a careful paramedic of a similar class or category would do in similar circumstances.

The content of the CPGs, DTP's and CPPs, coupled with the education and training provided to SJANT paramedics, will serve as a helpful guide as to what actions would be appropriate and reasonable in each circumstance.

Authorised Officers are encouraged to consult with senior officers, clinicians and SJANT Senior Medical Advisor if the circumstances warrant.

Authorised Officers are only to perform procedures for which they have received specific training, scope and authorisation by SJANT Senior Medical Advisor or Medical Director..

ROLE OF THE PARAMEDIC

The role of the paramedic lies within their St John Ambulance Australia (NT) Inc. position description. Paramedics have three primary tasks:

- the assessment and prioritisation of the patient's immediate and definitive needs
- delivery of the appropriate immediate care, while concurrently
- organising the provision of definitive care in the most time efficient manner.

The Paramedic must consider all resources available within the SJANT continuum when treating a patient, including SJANT resources, community resources and other emergency services including aeromedical resources, ancillary medical facilities and receiving hospitals.

Obtaining the most appropriate care in the most efficient time-frame may encompass the following options:

- paramedic to administer care on-scene if trained and authorised
- rendezvous with an Intensive Care Paramedic (ICP) or appropriately trained officer on-scene.
- rendezvous with an appropriate Doctor or ICP enroute
- utilise aeromedical services
- clinical consult with the SJANT Medical Director or Delegate
- transport patient to the most appropriate definitive care specific to their needs.

The paramedic must make these decisions in conjunction with SJANT Policy and Procedures, clinical training, experience and available advice.

BASIC PRINCIPLES OF PRE-HOSPITAL MANAGEMENT



Basic Principles of Pre-Hospital Management are goals of care that apply to all cases:

- Review all communication centre dispatch information.
- Consider all environmental factors and approach a scene only when it is safe to do so, stand off when instructed to do so.
- Identify potential and actual hazards and take the necessary precautions.
- Ensure the safety of yourself, other officers and emergency services personnel, your patients and the public.
- Ensure the scene is as safe as is practicable.
- Request assistance as required.

The basic principles of management applies to all patients, Paramedics must:

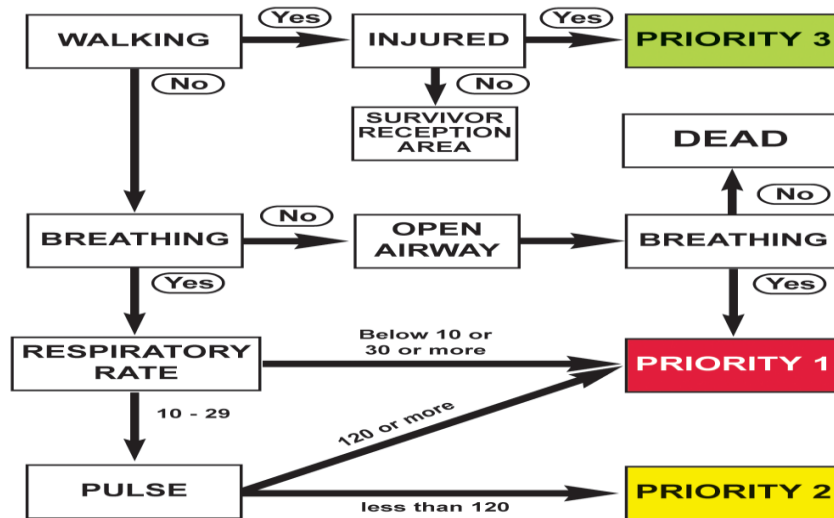
- identify and manage life threatening conditions
- locate all patients first. If the number of patients is greater than resources, seek additional resources.
- assess the patient's condition appropriately
- prioritise and manage the most life threatening conditions first
- provide sit-rep to communications as soon as possible
- provide adequate oxygenation and ventilation
- optimise tissue perfusion
- identify and manage other conditions
- provide appropriate pain relief
- posture the patient according to the presenting condition
- ensure the maintenance of normal body temperature
- provide psychological support at all times

TRANSPORT

- Transport as necessary.
- The **"On scene time"** must be kept to a **minimum**. Acutely ill or injured patients should always be mobilised to definitive hospital care as soon as practical.
- The implementation of Clinical Practice Guidelines should not interfere with expeditious transport to hospital. Clinical Practice Guidelines can be carried out en route to ensure minimum delay at scene.
- In urgent transport situations with the exception of non-traumatic cardiac arrest, if the **"Arrival time"** of back up officers with advanced clinical skills exceeds the **"Load and transport time"** to the nearest suitable hospital, the patient should be transported urgently. The hospital should be alerted with **IMIST-AMBO** so that a medical or trauma team can be assembled in the Emergency Department as necessary.
- **Teamwork and Communication** is essential to expedite transport. The Paramedic must at all times maintain harmonious working relationships with other SJANT personnel, police, fire brigade, rescue workers, nurses, doctors and members of the public so that the patient receives optimum care from the time of arrival at the scene to the handover at hospital.

MULTI-CASUALTY MANAGEMENT

Where the number of patients overwhelms the existing resources refer to the SJANT Multi-casualty Management Plan and casualty triage sieve.



TOTAL GLASGOW	13 - 15	4
COMA SCALE	9 - 12	3
	6 - 8	2
	4 - 5	1
	3	0
+		
RESPIRATORY	10 - 29	4
RATE	30 or more	3
	6 - 9	2
	1 - 5	1
	0	0
+		
SYSTOLIC BP	90 or more	4
	76 - 89	3
	50 - 75	2
	1 - 49	1
	0	0
=		

12 = **PRIORITY 3**
 11 = **PRIORITY 2**
 10 or less **PRIORITY 1**

TOTAL :

INFECTION CONTROL

This guideline describes SJANT infection control procedures for prevention of infectious disease transmission in the ambulance environment. The full policy is on the SJANT Intranet. Effective infection control is based on good hygiene centred on practices that arise from identifying hazards and implementing risk management procedures. Strategies for infection control are based on current understanding of the aetiology of infections involved and the most effective ways to control them. Paramedics must adhere to SJANT Policies P14, P18 and all other associated Policies and Documents.

OFFICER SUPPORT

Paramedic work sometimes exposes Officers to circumstances they find very difficult to cope with.

Sudden Infant Death Syndrome (SIDS) is one such circumstance and the following is provided to assist in the management of SIDS outside the clinical scope:

- Attempt resuscitation if appropriate.
- Treat the baby as a baby, rather than a body.
- Use the baby's name if you can.
- Do not hurry the baby away from the house.
- Separation from the baby should occur when the parents are ready.
- Carry the baby to a place of comfort in the home and allow parents to remain with their baby if they wish.
- Other children need not be removed or separated.
- Explain that it could be SIDS but this will be confirmed after 'an autopsy' is completed. Explain that our laws require an autopsy to be carried out to ascertain the cause, if possible, of any sudden, unexpected death, whatever the age of the person.

- Reassure parents that an autopsy is a detailed operation carried out with gentleness and care by a pathologist. Tell the parents that the police will call and that this is normal. Tell the parents a formal inquest is not necessary if death is due to SIDS and that parents are not required to identify the baby at the Coronial Services Centre.
- Reassure the parents that, if it is SIDS, there is nothing known that they or anyone else could have done to prevent the death.
- Explain if the baby had blood, vomit, facial or body discolouration that these can occur after or during the dying process and are probably not the cause of the death of their child.
- Allow parents to express their shock and disbelief. Respect cultural mourning customs.
- Ask the parents if they would like you to telephone anyone for them or help them to do so in order that they can have support, e.g. relatives, doctor, workplace, SIDS.

If needed, call 0448 849 234 for SIDS 24 hour crisis service. SIDS counsellors are also available for ambulance staff.

Other traumatic events are managed by paramedics as per relevant guidelines and procedures. However outside the clinical requirements of these cases there may be difficulty in the management of personal emotions, thoughts and coping mechanisms.

All SJANT staff should familiarise themselves with Peer Support and the free Employee Assistance Programs (EAP). The EAP is an external program funded by SJANT to provide professional and confidential counselling for all employees and their immediate family members, available on 1800 193 123 throughout the Northern Territory.

SJANT CLINICAL SCOPE OF PRACTICE LEVELS		
STUDENT PARAMEDIC I, II	PARAMEDIC In addition to Student Paramedic I, II ,	INTENSIVE CARE PARAMEDIC In addition to Paramedic;
Skills <ul style="list-style-type: none"> • Airway management • Adult , child, infant CPR • Application of aseptic dressing • Application of patient care process • Assess vital signs • Burns management • BVM ventilation • Cardiac monitoring • Glucometry • Intramuscular injections • Intranasal drug administration • Intravenous access (supervised) • Intravenous drug administration (supervised) • Laryngeal mask airway insertion (supervised) • Laryngoscopy with Magill forceps (supervised) • Locate and use of basic ambulance equipment • Nasopharyngeal airway • Nebulised medications • Normal cephalic delivery • Oropharyngeal airway • Patient assessment • Semi automatic defibrillation • Toxicology management • Trauma • Upper airway suctioning • Use of cervical collar • Use of ETCO₂ / SPO₂ • Use of Kendrick extrication device • Use of pelvic binder • Use of spinal movement restriction techniques • Use of traction splints and vacuum / air splints 	Skills <ul style="list-style-type: none"> • 12-Lead ECG acquisition (auto interpretation) • Capnography/Capnometry • Intraosseous access (cardiac arrest - EZ-IO) • Intravenous access • Intravenous drug administration • Laryngoscopy with Magill forceps • Laryngeal mask airway insertion • Manual defibrillation • Oral disintegrating tablet administration • PEEP • CPAP • Combat application tourniquet <div data-bbox="990 940 1111 1026" data-label="Image"> </div>	Skills <ul style="list-style-type: none"> • 12-Lead interpretations • Bougie endotracheal intubation • Cricothyrotomy • Coronary reperfusion • External jugular venous cannulation • Gastric decompression • Intraosseous access • Intravenous infusions • Intubation facilitated by sedation • Obstetric emergencies • Sedation and procedural sedation • Synchronised cardioversion • Thoracic decompression • Transcutaneous cardiac pacing • Valsalva manoeuvres

Pharmacology

*Adrenaline
*Aspirin
Ceftriaxone
Fentanyl
*Gastrolyte
Glucagon
Glucose 5%
Glucose 10%
*Glucose gel
Glyceryl Trinitrate
*Methoxyflurane
Midazolam
Naloxone hydrochloride
*Oxygen
*Paracetamol
*Salbutamol
Sodium chloride 0.9% (supervised)
Water for injection (supervised)

**Includes*

- *Non Emergency Patient Transport Officers*
- *Volunteer Advanced Responder*

Pharmacology

Amiodarone (cardiac arrest)
Ipratropium bromide
Metoclopramide
Morphine
Ondansetron
Sodium chloride 0.9%
Sodium bicarbonate 8.4%

^ Includes

- *Supervised Graduate Intern Paramedic*
- *Supervised Student Paramedic III*

Pharmacology

Amiodarone
Atropine
Calcium gluconate 10%
Clopidogrel
Enoxaparin
Frusemide
Hydrocortisone
Ketamine
Lignocaine 2%
Magnesium sulphate
Suxamethonium
Tenecteplase

^ Includes

- *Supervised Intensive Care Intern Paramedic*