



First Responder

Field Guide

Uncontrolled document exported 16.6.2026



Hato Hone
St John

General Principles

The role of the First Responder

First Responders have three predominant roles:

- Assessing scene safety, assessing the patient, treating immediately life-threatening abnormalities and providing a sitrep prior to an ambulance locating at the scene, and
- Supporting and assisting personnel at EMT level or higher, to treat and/or transport patients in an ambulance, and
- Providing advanced first aid at events.

In addition to first aid interventions, First Responders may administer any of the following medicines and/or utilise any of the following skills without specific instructions to do so:

- Automated external defibrillation.
- Oxygen administration.
- Manual airway manipulation (including nasopharyngeal airway, oropharyngeal airway and use of suction).
- Ventilation via a manual ventilation bag and mask.
- Arterial tourniquet (for example a CAT) application.
- Administration of adrenaline via an auto-injector for anaphylaxis.
- Administration of a patient's prescribed medicines.
- Vital signs and ECG acquisition.
- Aspirin for suspected cardiac chest pain.
- Oral paracetamol.
- Oral ibuprofen.
- Oral glucose.
- Oral loratadine for minor allergy.

First Responders may only administer medicines and/or utilise skills other than those listed above when instructed to do so by personnel on the Clinical Desk or by the following personnel at the scene: those with ATP, a registered medical or nurse practitioner or a PRIME responder. Most commonly these medicines and skills include:

General Principles

- Inhaled methoxyflurane.
- Intramuscular adrenaline.
- Intramuscular ceftriaxone.
- Intramuscular glucagon.
- Intramuscular midazolam.
- Intramuscular ondansetron.
- Limb realignment and joint relocation.
- Cervical collar application.
- Nebulised adrenaline.
- Nebulised salbutamol.
- Nebulised ipratropium.
- Sublingual glyceryl trinitrate (GTN).
- Traction splint application.

Other medicines may be administered and/or skills utilised when instructed to do so by personnel described above, provided the First Responder is trained and able to do so.

Informed consent

Informed consent is an interactive process involving communication between personnel and a patient, during which the patient gains an understanding of their condition and makes an informed choice regarding their treatment and/or transport options. Good communication is always the key factor in obtaining informed consent. It is important to take the time required to ensure the patient understands the issues as much as possible.

However, it is often not possible or appropriate for First Responders to gain informed consent prior to initiating treatment and the clinical setting must be taken into account. For example, detailed discussion is inappropriate if a patient has an immediately life-threatening problem or is in severe pain. In such settings it is appropriate to initiate treatment while explaining the treatment that is being provided.

Treatment and referral decisions

General Principles

- If First Responders have been dispatched to an incident by Comms, an ambulance must also be dispatched as soon as possible. If First Responders become aware that an ambulance has not been dispatched they should request that one is dispatched as soon as possible.
- First Responders must not make decisions regarding non-transport of a patient. Such decisions must be made by personnel with ATP, a registered medical or nurse practitioner, a PRIME responder or personnel on the Clinical Desk.
- If a competent patient refuses assessment or treatment and none is provided, First Responders may cancel the responding support, for example at a motor vehicle crash.
- First Responders should call the Clinical Desk for advice if there is going to be a significant delay in an ambulance locating at the scene.
- First Responders may transport a patient toward a responding ambulance, to a helicopter landing site or to a specific location as requested by Comms.

Patient positioning

- Patients who are alert should adopt their own position.
- Patients who are not alert should be lying down.
- Patients who are unconscious or only responding to pain should be placed on their side (supported) whenever this is feasible.
- Patients in cardiac arrest should be on their back.

The chief complaint (or primary clinical impression)

If the primary survey is abnormal then this is the chief complaint. For example, if the patient has abdominal pain and shortness of breath the chief complaint is shortness of breath.

If the primary survey is normal then the chief complaint is the form of words that best describes the patient's problem. For example, if the patient clearly has an isolated ankle fracture this is the chief complaint, but if the patient has a sore ankle without signs of obvious fracture then the chief complaint is ankle pain.

Vital signs

- Vital signs should be recorded:
 - In all patients unless there is a specific reason not to (including RR, HR, BP, CRT and LOC).

General Principles

- » When they are a pre-requisite to treatment. For example, a blood glucose level must be recorded before administering oral glucose.
 - » Following a treatment that may alter vital signs. For example, a blood pressure must be recorded after assisting a patient to take their prescribed GTN.
- Vital signs should not be recorded if the patient has a time critical problem and the results will not change the treatment that is provided. For example, a blood glucose level should not be recorded prior to adrenaline administration if the patient has anaphylaxis.
- The frequency of vital signs:
 - » Vital signs should usually be recorded every 10-15 minutes for a patient that is status one or status two, noting that vital signs are not required if the patient has a time critical problem and the result will not change the treatment provided.
 - » Vital signs should usually be recorded every 20-30 minutes for patients that are status three or status four.
 - » Some vital signs are monitored continually (for example heart rate via ECG leads) but are recorded at intervals. It is appropriate to record these if a significant change occurs, or other vital signs (such as blood pressure) are being recorded simultaneously.
- It is usually inappropriate to stop a moving vehicle for the purpose of measuring and/or recording vital signs.

Checklists and action lists

- There are checklists and action lists within the EAS CPGs that are designed to minimise errors (such as omissions), reduce cognitive load in high acuity situations, improve consistency, and enhance patient safety.
- Personnel with ATP (including personnel on the Clinical Desk) may request that a First Responder reads through a checklist or action list.
- For this reason, all checklists and action lists that feature in the EAS CPGs are also included in this Field Guide.

Taking a History

Taking a history involves communicating with the patient, family, caregivers or bystanders to gather information that may be relevant to the patient's current condition.

SAMPLE is a useful acronym to help ensure all relevant information is gathered when taking a history:

- S Signs and symptoms.** What signs (physical findings) and symptoms (things they are complaining of) do they have?
- A Allergies.** Do they have any known severe allergies?
- M Medications.** What medications are they currently prescribed and/or taking?
- P Past history.** Have they had this problem before and is there any other relevant past medical history?
- L Last healthcare contact.** When was the last time they were in contact with the healthcare system and what was this for?
- E Events prior.** What is the history preceding this illness or injury?

OPQRST is a useful acronym to help ensure all relevant information is gathered when a patient is in pain:

- O Onset.** What they were they doing when the pain started?
 - P Provoking.** Does anything make their pain better or worse?
 - Q Quality.** What does their pain feel like? Ask them to use their own words to describe it, for example dull, heavy or sharp.
 - R Region and radiation.** Where is the pain and does it go (radiate) anywhere else?
 - S Severity.** How severe is the pain? Using the 0–10 scale may be helpful, but if they are clearly in severe pain it is appropriate to just record this as severe.
 - T Timing.** What time did the pain start? Is the pain always there or does it come and go?
-

The primary survey

- The primary survey is a rapid assessment of the patient, looking for immediate threats to life and providing immediate treatment as required.
- Although the primary survey is listed in a specific order, if there is an obvious immediate threat to life this should be treated as the first action. For example, if there is catastrophic external bleeding, the first action should be to control this, before assessing airway and breathing.
- The primary survey should take approximately 30–60 seconds.
- Any significant deterioration in the patient's condition should prompt a reassessment of the primary survey looking for a cause.

Performing a primary survey

Airway

- Look and listen for signs of airway obstruction.
- Open the airway manually using head tilt/chin lift or jaw thrust if required.
- Utilise airway adjuncts such as oropharyngeal airway and/or a nasopharyngeal airway if required.
- Consider the possibility of cervical spine injury if the patient is suffering from trauma, but the airway takes priority.

Breathing

- Look and feel for adequate chest rise and fall.
- Look for obvious signs of respiratory distress.
- Ventilate using a manual ventilation bag and mask if required.

Circulation

- Look for and compress significant external bleeding.
- Start CPR if required.
- Feel the pulse rate and strength.
- Look and feel for abnormal (slow) peripheral perfusion/capillary refill time.

Disability

- Check the level of consciousness using the AVPU scale.

Exposure, examination and environmental control

- Appropriately expose and examine the patient, while keeping them warm.

The secondary survey

- The secondary survey follows the primary survey and is a 'top to toe' examination of the patient.
- Although primarily designed for patients suffering from trauma, the secondary survey is important for all patients and should be appropriately modified if the patient is not suffering from trauma.
- The secondary survey should take approximately 2–3 minutes.
- Do not conduct a detailed secondary survey if there are significant abnormalities in the primary survey.
- Looking at the pupils does not usually provide useful information.
- There is no value in feeling the spine for tenderness unless the patient is alert.

Performing a secondary survey

Central nervous system

- Check the patient can move their face and all limbs normally.
- Check the patient can feel soft touch on all limbs.

Head, neck and face

- Look and feel for abnormalities such as wounds, deformity, bleeding or signs of infection.
- Feel the cervical spine for tenderness if appropriate.
- Look for a medical information adjunct such as a necklace.

Chest

- Look and feel for abnormalities such as wounds, deformity or bleeding.
- Look and feel for symmetry of chest movement and/or abnormal chest wall movement.

Abdomen and pelvis

- Look and feel for abnormalities such as wounds, deformity or bleeding.
- Ask the patient if they have pain in their abdomen or pelvis/hips.

Extremities

- Look and feel for abnormalities such as wounds, deformity, bleeding or signs of infection.
- Look at colour, feel warmth and assess perfusion/capillary refill time.
- Look for a medical information adjunct such as a bracelet.

Back and spine

- Look and feel for abnormalities such as wounds, deformity or bleeding.
 - Feel the spine for tenderness if appropriate.
-

Documentation

Documentation is always required if First Responders are dispatched to an incident by Comms and a patient is assessed, and for all patients assessed at an event.

General principles

- Documentation must be accurate and complete.
- Documentation must be objective and subjective statements should be avoided.
- As a general rule, a third party (for example, the Health and Disability Commissioner) will assume that if something is not recorded it did not occur.
- A third party should be able to read the documentation and understand what happened and why.

Information requiring documentation

- First Responders may use ePRF or a Patient Handover Form to document patient information when they are being backed up by an ambulance.
- First Responders must complete an event patient log for all patients assessed at an event. In addition, an ePRF is required at an event in the following circumstances:
 - A medicine other than paracetamol or ibuprofen is administered to the patient. For example, at an event a patient may be administered paracetamol for minor pain without completing an ePRF, but if salbutamol is administered an ePRF is required.
 - A significant clinical intervention is provided. What is 'significant' cannot be tightly defined and requires clinical judgement. For example, placing an ice pack on a soft tissue injury at an event is not considered a significant clinical intervention but reducing a dislocated patella is.
 - A referral decision is made other than 'see and treat', for example a patient is recommended to attend an accident and medical clinic.
 - If a patient has had their blood pressure, blood glucose, or oxygen saturation measured.

Documentation must include:

- A history of the patient's presentation, and
- A description of all significant treatment administered and/or interventions provided prior to ambulance arrival, and
- All treatment or interventions provided by ambulance personnel or by people assisting ambulance personnel (for example, PRIME responders), and

Documentation

- A description of any clinical advice received, for example via the Clinical Desk, and
- Any vital signs recorded, and
- Known allergies to medicines.

If personnel with ATP determine that transport to a medical facility is not required, they are responsible for completing the ePRF.

Status Codes

Status	Condition	Triage tag colour
Zero	Dead	Black/white
One	Immediate	Red
Two	Urgent	Orange/yellow
Three	Delayed	Green
Four	Delayed	Green

Status codes are:

- A numerical estimate of the severity of a patient's clinical condition.
- Qualitative and require clinical judgement.
- Allocated to a patient after considering the nature of their illness or injuries, the vital signs and the potential threat to life.
- Not directly altered by the mechanism of injury, the physical environment (for example trapped or not trapped) or the patient's age.
- Status codes are not ideal for pregnant women as the code cannot always be used to describe the potential threat to life for the unborn baby and the mother. Consideration should be given to adjusting the status code of the mother to take into account the threat to life for the unborn baby if the baby is at risk.
- The following examples are indicative only.

Examples of status one

- Obstructed airway or airway needing intervention.
- Severe difficulty breathing, for example only able to speak a word or two between breaths.
- Severe shock or severe uncontrolled bleeding.
- Severe injuries to multiple areas of the body.
- Unconscious or responding only to pain.

Status Codes

Examples of status two

- Moderate difficulty breathing, for example able to only speak in short sentences between breaths.
- Severe bleeding that has been controlled.
- Fractures or dislocations associated with obvious signs of limb ischaemia (for example, the limb is cold or pale).
- Cardiac chest pain.
- Stroke.
- Not alert but responding to voice.

Examples of status three

- Mild difficulty breathing, for example able to speak in full sentences between breaths.
- Isolated fracture of one long bone. This includes open fractures provided there are no obvious signs of limb ischaemia.
- Dislocations of joints with no obvious distal limb ischaemia.
- Abdominal pain without signs of shock.

Examples of status four

- Isolated minor fractures or lacerations.
- Strains and sprains.
- Headache with normal vital signs.

Situation Reports

A situation report (sitrep) should usually be provided to Comms within five minutes of locating at an incident.

Provide the following information if one patient is present:

- The patient's known or estimated age.
- The patient's status.
- The chief complaint.
- Any additional specific information, for example pain relief needed.

Provide the following information if more than one patient is present:

- The number of patients.
- An estimate of the patient's status codes.
- The number trapped.
- Any additional specific information, for example regarding safety.

Provide the sitrep in a few short sentences, for example:

- "45 year old. Status three with severe abdominal pain. Likely to require a Paramedic for pain relief".
- "Approximately 20 year old. Status one, unresponsive with airway obstruction. Require CCP for assistance with airway".
- "Four patients. One status two trapped and three status fours. The road is blocked by a rolled truck and the scene is best approached from the south".

Calling the Clinical Desk

Communicate using the ISBAR template:

- I Identify yourself.** State your name, practice level, agency, vehicle call sign and where you are calling from.
- S Situation.** State a succinct reason for calling. For example:
"I am calling for permission to administer adrenaline IM," or
"I am calling for advice".
- B Background.** Briefly describe the background of the call.
- A Assessment.** Describe your assessment of the patient. Ensure that any information that is likely to be required (for example, vital signs) is available.
- R Recommend and review.** State what you think is required and then listen carefully to instructions from personnel on the Clinical Desk. Review and confirm the plan before ending the call.

If your call is not answered immediately

- Ensure you are using the designated phone number.
- Stay on the line and pass the phone to someone else if necessary. You will be connected to the Clinical Desk as soon as possible.
- Hang up and call the dispatcher by radio if urgent advice is required. Ask for Clinical Desk personnel to phone you immediately and include the number to call.

Handover

Use the **IMIST AMBO** template:

- I** Identification of the patient.
 - M** Mechanism of injury or medical complaint.
 - I** Injuries identified or information related to the medical complaint.
 - S** Signs and symptoms.
 - T** Treatment provided and trends.
 - A** Allergies.
 - M** Medicines.
 - B** Background, including previous medical history.
 - O** Other, including information on family and social situation.
-

Requesting a Helicopter

- Assess the scene and the patient(s).
- Call the Air Desk provided you have cell phone coverage and a spare First Responder:
 - Provide your name, your vehicle call sign and where you are calling from.
 - Briefly describe the scene and the primary survey of the patients you think need a helicopter.
 - Describe any specific requirements, for example winching.
- Contact Comms via radio and provide the information as above if you do not have cell phone coverage and/or you do not have a spare First Responder to make the phone call.

If a helicopter is dispatched

- Designate personnel to secure an appropriate landing site.
- Prior to their arrival update the helicopter crew over the radio via the liaison channel with:
 - A description of the landing site and any obvious hazards, particularly wires.
 - An update on the patient's condition.

Additional information

- Helicopters are dispatched using nationally agreed **ANTS** criteria:
 - A** **Access** is difficult and a helicopter is the most appropriate means of extrication, or
 - N** The **number of patients** at the scene exceeds the capacity of road resources, or
 - T** The patient has a clinical condition with **time sensitive** need for transport and a helicopter will result in a clinically significant time saving in the patient arriving at the most appropriate hospital, or
 - S** The patient has a clinical condition with a time sensitive need for **specific skills**, and a helicopter will result in a clinically significant time saving in appropriately skilled personnel reaching the patient.
- Requesting a helicopter does not mean that one will necessarily be dispatched, and Air Desk personnel may call First Responders back to ask for more information before making a decision.
- In many areas of New Zealand there are commonly used landing sites and these should be used whenever feasible. If it is not feasible, select a landing site that is:
 - Sufficiently removed from the scene to minimise the effects of downwash.
 - As large as possible. A minimum of 20 metres by 20 metres is preferred.

Requesting a Helicopter

- » As flat and firm as possible. Less than five degrees of slope is preferred.
 - » Free of sand or loose soil if possible.
 - » Free of surrounding wires, poles and trees if possible.
 - » Free of loose objects. Remove loose objects that may move with the helicopter downwash.
 - » Free of long grass. Less than 30 cm is preferred.
 - » Free of livestock.
-

Major Incident Sitrep

In the event of a major incident, utilise the major incident folder if one is available and provide a **METHANE** sitrep as soon as possible.

- M** Major incident declaration.
 - E** Exact location of incident.
 - T** Type of incident.
 - H** Hazards (significant) identified.
 - A** Access and egress.
 - N** Number (estimated) of patients.
 - E** Emergency services already present and extra resources required.
-

Oxygen Administration

- Oxygen should usually only be administered if the patient has an SpO₂ of less than 92% on air, an abnormal airway, severe difficulty breathing, is unresponsive, or has a specific indication as described within this field guide.
- In the absence of alternative instructions from personnel with ATP, a registered medical or nurse practitioner, a PRIME responder or personnel on the Clinical Desk, the oxygen flow rates to be used are:
 - Nasal prongs 2 litres/minute.
 - Simple mask 6 litres/minute.
 - Nebuliser mask 8 litres/minute.
 - Reservoir mask 10 litres/minute.
 - Manual ventilation bag 10 litres/minute.

Pulse oximetry

- A pulse oximeter provides a reading of how much oxygen is contained within blood, as a percentage of maximum capacity. It does not provide information on how well a patient is breathing.
- Pulse oximeter readings can be unreliable if the patient is very vasoconstricted, shaking, moving, has very dirty fingers or has been exposed to carbon monoxide. In particular, the pulse oximeter reading may be invalid if the waveform is poor and/or if the pulse rate measured by the pulse oximeter is different from the heart rate measured by the ECG.

Patients at high risk

- A small number of patients are at risk of developing a raised carbon dioxide level when administered oxygen. These patients are considered at high risk and include patients with COPD, severe obesity, and those that are on home oxygen or home CPAP/BIPAP.
- It is appropriate to administer oxygen to patients at high risk if they meet criteria as previously outlined, but seek early clinical advice from the Clinical Desk if an ambulance is going to be significantly delayed in locating at the scene.

Choosing the oxygen delivery device and flow rate

- A pragmatic approach should be taken when choosing the oxygen delivery device and flow rate:
 - For most conscious patients a simple mask is appropriate.
 - For most unresponsive patients a reservoir mask is appropriate.
 - Only use a manual ventilation bag for those patients requiring assistance with their breathing.

Oxygen Administration

- » If the patient is on home oxygen, use the same delivery device (usually nasal prongs) and the same flow rate that the patient usually uses.

Oxygen administration in confined spaces

- Use caution when administering oxygen in a confined space, for example in a tank, pipe or silo as this can create an explosive atmosphere.
- Only administer oxygen within a confined space if:
 - » The clinical indication is very strong, and
 - » Fire personnel are present and are monitoring the oxygen concentration within the space.

Pain Relief

- Assess the severity and nature of the pain.
- Offer the patient paracetamol and ibuprofen PO if the pain is mild to moderate and:
 - Appears to be secondary to a minor problem such as minor injury or headache, or
 - The patient will be transported by ambulance and an ambulance is going to be delayed in locating at the scene.
- Call the Clinical Desk for instructions if the pain is severe and an ambulance is going to be delayed in locating at the scene. Possible treatments include inhaled methoxyflurane. Ensure the following information is available prior to calling:
 - The patient's age.
 - If the patient has a known personal history or family history of malignant hyperthermia.
 - If the patient has a known personal history or family history of life-threatening reactions to anaesthetic medicines.
 - If the patient has known kidney impairment.
 - If the patient has received methoxyflurane within the last week.

Paracetamol

- Do not offer paracetamol to the patient if they:
 - Are allergic to paracetamol, or
 - Have taken paracetamol in the last four hours, or
 - Are not alert, or
 - Have abdominal pain, or
 - Have known severe liver disease.
- Paracetamol dosage:
 - 1 g (two tablets or 20 ml of 50 mg/ml syrup) for patients aged 14 years and over.
 - 500 mg (one tablet or 10 ml of 50 mg/ml syrup) for patients aged 11-13 years.
 - 250 mg (half a tablet or 5 ml of 50 mg/ml syrup) for patients aged 6-10 years.
 - Do not administer paracetamol to patients aged less than 6 years without seeking clinical advice.

Ibuprofen

- Do not offer ibuprofen to the patient if they:
 - Are allergic to ibuprofen, or

Pain Relief

- » Are not alert, or
- » Are pregnant, or
- » Appear to be very unwell or are severely injured, or
- » Are known to develop breathing problems when taking ibuprofen or other anti-inflammatories, or
- » Have taken ibuprofen in the last four hours, or
- » Have abdominal pain, or
- » Are aged greater than or equal to 75 years.

- » Ibuprofen dosage:
 - » 400 mg (two tablets or 20 ml of 20 mg/ml syrup) for patients aged 14 years and over.
 - » 300 mg (one and a half tablets or 15 ml of 20 mg/ml syrup) for children aged 11-13 years.
 - » 200 mg (one tablet or 10 ml of 20 mg/ml syrup) for children aged 6-10 years.
 - » Do not administer ibuprofen to children aged less than 6 years without seeking clinical advice.

Additional information

- » Pain relief is usually best achieved through a combination of positioning, splinting, reassurance and medicines.
- » First Responders cannot make a decision to administer pain relief to a patient, as this requires ATP. However:
 - » First Responders may offer a patient paracetamol and/or ibuprofen for the patient to self-administer the medicines.
 - » First Responders may administer methoxyflurane when instructed to do so by personnel with ATP, a registered medical or nurse practitioner, a PRIME responder or personnel on the Clinical Desk.
- » Paracetamol and ibuprofen should usually be offered in combination, as this provides better pain relief than either medicine alone. However, one of the medicines may be offered alone if there is a clear reason for the patient not to be offered the other.
- » If the patient is a child, permission from a parent or guardian should be obtained before pain relief is offered or administered, whenever it is feasible to do so. However, it is acceptable to offer or administer pain relief if the child is in significant pain and a parent or guardian cannot be contacted.
- » Paracetamol and/or ibuprofen may be provided to patients at events that ask for them, provided the patient appears to have a minor problem such as minor injury or headache. In this setting no formal assessment is required before providing the medicines, however if the patient appears to be very unwell or severely injured the patient must be assessed before pain relief is offered.

Human Factors and Teamwork

General principles

- Human factors, also known as crew resource management, encompass a set of principles focusing on the skills of teamwork, team leadership and communication.
- Good teamwork reduces the possibility that human factors and/or human error will result in harm, while helping ensure the patient receives timely and effective treatment.
- It is the responsibility of all personnel to utilise the principles of good teamwork irrespective of clinical hierarchy, organisational position, experience, or interpersonal challenges.
- Human factors and teamwork are most important during a complex or emergency incident, but the principles are important during all incidents.

Initial actions and the pre-primary survey

- Utilise the STEP-UP acronym:
 - S** Self check.
 - T** Team check and team brief.
 - E** Environmental scan.
 - P** Primary survey.
 - U** Update the team.
 - P** Plan and priorities.

Principles of good teamwork

- Establish a team leader.
- Communicate effectively.
- Utilise resources effectively.
- Utilise pause points, reassess the situation frequently and keep the team updated.

Human Factors and Teamwork

Additional information

Initial actions and the pre-primary survey

- The pre-primary survey is a structured approach to the initial actions when approaching the scene/patient and it overlaps with the primary survey.
- The self check helps ensure individuals are appropriately prepared. For example, are:
 - Wearing the right PPE.
 - Mentally ready. If the scene is likely to be stressful, performance may be improved with simple techniques such as controlled breathing, reviewing available resources (for example, the First Responder Field Guide), and visualising and rehearsing tasks mentally.
- The team check and team brief helps to ensure the team is appropriately prepared. For example:
 - A team leader is identified.
 - Roles are allocated.
 - Team members' PPE is checked.
 - The team is briefed on what is known and what the initial priorities are likely to be.
- The environmental scan helps ensure the environment is optimised. For example, safety is ensured and space and light are optimised.
- Updating the team with the plan and the priorities optimises good teamwork.

Principles of good teamwork

- Establish a team leader who:
 - Is the most appropriate person and clearly identified.
 - Identifies the plan and priorities.
 - Directs the actions of the team, including tasking specific people to specific tasks, utilising pause points, and ensuring the team is regularly updated on the plan and priorities.
 - Avoids performing physical tasks unless absolutely necessary.
 - Seeks input from other team members as required.
 - Utilises resources effectively.
- All team members communicate effectively, for example:
 - Utilise clear and concise language.
 - Utilise closed loop communication. For example, if tasked to acquire a 3 lead ECG, state when this is completed.

Human Factors and Teamwork

- » Ensure important information is communicated directly to the team leader, and unnecessary communication is minimised.
 - » Utilise a flattened hierarchy that enables all team members to feel comfortable raising a concern, without fear that they will be criticised.
 - » Utilise a graded approach to escalation of concerns.
- Graded approach to escalation of concerns:
- » Even in the presence of a flattened hierarchy, it is important to take a graded approach to escalation of concerns. This ensures the best outcome for the patient and that the team continues to function effectively.
 - » Use the 'PACE' acronym (probe, alert, challenge, emergency) to escalate a concern. Move to the next step if your concern is not resolved and move straight to the last step if there is an immediate risk of severe harm.
 - » straight to the last step if there is an immediate risk of severe harm.
 - » Below is an example of PACE used when a patient who is supine starts vomiting:
 - P** **Probe:** "Are you sure you are happy with the patient's position'?"
 - A** **Alert:** "The patient's airway is potentially compromised in this position."
 - C** **Challenge:** "We should move the patient onto their side while they are vomiting."
 - E** **Emergency:** "STOP we need to move the patient onto their side to protect their airway."
- Seek advice via the Clinical Desk if the situation is difficult to resolve.

Psychological Wellness

Use the MANERS psychological first aid tool to help proactively support mental health and wellness of personnel.

M Minimise exposure:

- Minimise exposure to distressing situations. For example, if a person is psychologically distressed speak to them and their manager about the possibility of taking time away from work.
- Move to a place of calm and safety if distressed. This may not always be immediately possible during an incident, but if a person is distressed remove them from the situation as soon as possible and have someone be with them.

A Acknowledge the event:

- Talk openly if an incident was potentially distressing.
- Ask the person if they are OK.
- Allow the person to talk about how they have been affected, but respect people who do not want to talk about it.
- Ensure conversations are sensitive, respectful and confidential.
- Be prepared to listen without trying to provide solutions.

N Normalise reactions:

- Reassure the person it is normal to be affected.
- Recognise that individual people are affected differently and that this is normal.
- Acknowledge the person's feelings without being judgemental.

E Educate as required:

- Talk about the MANERS psychological first aid tool.
- Talk about what helps you.
- Encourage techniques that promote psychological wellness.
- Ensure the person knows the support services available through their service and externally.



Psychological Wellness



Review, restore or refer:

- Encourage the person to return to normal duties when ready.
- Arrange a follow-up phone call or visit to check on how they are doing.
- Refer the person to support services if required, for example peer support or professional assistance.



Self-care:

- Maintain a healthy lifestyle ensuring adequate sleep, exercise, nutrition and leisure activity.
- Encourage a culture of openly talking about how we are feeling.
- Identify your own barriers to psychological wellness and develop a proactive approach to ensuring you are well.
- Develop skills that improve communication and help deal with conflict.
- Access peer support and/or professional support as required.

Pause briefly at the end of each shift (preferably with your crew) pause briefly and think about or discuss:

- What was the best thing we did for a patient or family today?
- What is something we did today that we could do better next time?
- What are we going to do when we get home to help maintain our psychological wellness?

Asthma

- Perform a primary survey.
- Follow the patient's asthma action plan if they have one.
- Administer oxygen via a nebuliser mask at 8 litres/minute and call the Clinical Desk urgently if the patient is only able to speak a few words (or less) per breath.
- Take a history and measure vital signs.
- Update Comms with a sitrep.
- Assist the patient to administer their 'reliever' inhaler. This is usually blue in colour.
- Call the Clinical Desk for instructions on additional treatment if the patient is deteriorating or an ambulance is going to be significantly delayed in locating at the scene. Additional treatments include nebulised salbutamol, nebulised ipratropium and/or adrenaline IM.

Additional information

- The easiest way to identify asthma is to ask the patient if they have asthma.
- If the patient is very short of breath it is appropriate to ask closed questions that enable them to nod or shake their head.
- Signs and symptoms of asthma include:
 - Wheeze.
 - Respiratory distress.
 - Accessory muscle usage.
 - Reduced words per breath.

- Perform a primary survey.
- Follow the patient's COPD action plan if they have one.
- Take a history and measure vital signs.
- Update Comms with a sitrep.
- Administer oxygen at 2 litres/min via nasal prongs if their SpO₂ is less than 88%.
- Assist the patient to administer their 'reliever' inhaler. This is usually blue in colour.
- Call the Clinical Desk for instructions on additional treatment if the patient is only able to speak a few words (or less) per breath, is deteriorating or an ambulance is going to be significantly delayed in locating at the scene. Additional treatments include nebulised salbutamol and nebulised ipratropium.

Additional information

- The easiest way to identify COPD is to ask the patient if they have COPD. They may use alternative words for COPD such as emphysema or chronic bronchitis.
- If the patient is very short of breath it is appropriate to ask closed questions that enable the patient to nod or shake their head.
- Other signs and symptoms of COPD include:
 - Wheeze.
 - Respiratory distress.
 - Accessory muscle usage.
 - Reduced words per breath.
 - Chronic cough that produces sputum.
- It can be difficult to determine whether the patient has asthma or COPD. Patients with asthma have normal breathing between attacks but patients with COPD do not. If you are uncertain if the patient has asthma or COPD, treat them as if they have asthma.
- If you suspect a patient has COPD, it is appropriate to briefly pause to understand how bad their breathing is compared to usual. Because patients with COPD are often short of breath even when well, it is easy to overestimate the severity of their COPD. If possible, ask how their shortness of breath compares with their usual state.
- Patients with COPD are at risk of developing a rising carbon dioxide level when administered oxygen. It is appropriate to commence administration of oxygen if indicated, but call the Clinical Desk for advice if an

ambulance is going to be significantly delayed in locating at the scene.

Foreign Body Airway Obstruction

If the patient is **conscious and breathing is adequate**:

- Do not provide any specific intervention.
- Be prepared to intervene if deterioration occurs.

If the patient is **conscious and breathing is inadequate**:

- Perform up to five back blows.
- Perform up to five chest thrusts.
- Alternate between cycles of back blows and chest thrusts until the obstruction is cleared, or the patient becomes unconscious.

If the patient is **unconscious and breathing is adequate**:

- Place the patient on their side.
- Be prepared to intervene if deterioration occurs.

If the patient is **unconscious and breathing is inadequate**:

- Try to remove the foreign body with a finger sweep.
- Commence CPR if the obstruction is not cleared.

Additional information

- Foreign body airway obstruction occurs most commonly in young children, the elderly, the intoxicated, and the intellectually impaired.
- A patient that has adequate breathing and/or coughing does not require immediate intervention.
- Check the patient for signs of relief of the obstruction between each intervention.
- When performing back blows position the patient with their head below their shoulders, provided this is feasible.
- Abdominal thrusts (also known as the Heimlich manoeuvre) are no longer recommended because they are associated with a risk of intra-abdominal injury and do not appear to be associated with a higher chance of success than chest thrusts.

Stridor

- Perform a primary survey.
- Take a history and measure vital signs.
- Update Comms with a sitrep.
- Call the Clinical Desk for instructions on additional treatment if the patient has severe difficulty breathing, is deteriorating, or an ambulance is going to be significantly delayed in locating at the scene. Additional treatments include nebulised adrenaline.

Additional information

- Stridor is an abnormal high pitched noise created when air is moving through a narrowed airway.
- Stridor is commonly caused by an infection causing swelling of the upper airway, particularly in young children.
- In the absence of foreign body airway obstruction, the cause of stridor is not important and the initial treatment is the same regardless of the cause.
- It is important to keep children as calm as possible, because stridor will usually get worse if they become upset or cry. Young children are more likely to remain calm if they are kept in the arms of a parent, but they must be transported in an approved restraint and not in the arms of a parent.
- Do not treat stridor with nebulised water or nebulised saline as this increases coughing but does not improve stridor.

Cardiac Chest Pain

- Perform a primary survey.
- Take a history and measure vital signs, including a 3 lead ECG if a suitable monitor is available.
- Update Comms with a sitrep.
- Acquire a 12 lead ECG only if trained to do so and a suitable monitor is available.
- Administer 300 mg of soluble aspirin provided the patient is an adult, is not pregnant and has not taken aspirin following instructions from the 111 Call Handler.
- Assist the patient to administer one dose of their own GTN every five minutes, provided the patient:
 - Is alert, and
 - Has ongoing chest pain, and
 - Has already been prescribed GTN, and
 - Has a systolic BP greater than 110 mmHg, and
 - Has a heart rate greater than 40/minute and less than 150/minute.
- Call the Clinical Desk for instructions on additional treatment if the patient has severe pain or an ambulance is going to be significantly delayed in locating at the scene. Additional treatments include GTN and inhaled methoxyflurane.

Additional information

- Signs and symptoms of cardiac chest pain (myocardial ischaemia) include any of the following symptoms that do not ease completely after 15 minutes of rest:
 - Pain or an uncomfortable pressure in the middle of the chest.
 - Pain that radiates into the neck, jaw or teeth.
 - Pain that radiates into the shoulders or down one or both arms.
 - Pain that feels like a heavy weight is resting on the chest or a band is being tightened around the chest.
 - In addition, the patient may have shortness of breath, nausea or a feeling of impending doom.
- GTN may cause a significant fall in blood flow/output from the heart, particularly if the patient is having an ST elevation myocardial infarction (STEMI or heart attack). GTN is not a priority and the patient should not be encouraged to self-administer GTN if their systolic BP is less than or equal to 110 mmHg or they have other signs of low blood flow (such as feeling light headed or appearing very unwell).
- Aspirin reduces blood clotting and improves outcomes for patients with cardiac chest pain. However, aspirin administration is not a priority if First Responders are uncertain if the patient has cardiac chest pain

Cardiac Chest Pain

or if an ambulance will locate at the scene soon after First Responders.

Cardiac Arrest

- Perform a primary survey and confirm cardiac arrest.
- Start high performance CPR at a ratio of 30:2 if the cardiac arrest is suspected to be due to a problem with the heart, or the cause is unclear.
- Start CPR at a ratio of 15:2 if the cardiac arrest is secondary to a breathing problem (for example, choking, hanging, drowning, or asthma) or the patient is a child.
- Attach an AED/defibrillator in automatic mode and follow the instructions/voice prompts.
- Update Comms with a sitrep.

General principles of CPR

- Resuscitation should start unless there is a clear reason not to. Clear reasons for not starting resuscitation include rigor mortis, and visible signs of injuries incompatible with life (for example, decapitation).
- If there is doubt that the patient is in cardiac arrest the balance of risk is in favour of performing CPR.
- Move the patient to a clear area and place on a firm surface whenever feasible.
- Perform chest compressions at a rate of 100-120/minute, ensuring adequate depth and complete recoil.
- When performing 30:2 CPR, the person performing the chest compressions must not stop if the person performing ventilations is not ready, and must not stop for more than three seconds for ventilation. Chest compressions should be recommenced after a three second pause, even if two breaths have not been delivered.
- CPR should be performed for two minute cycles between rhythm checks. The person performing chest compressions should ideally change every two minutes, or earlier if tired.
- A CPR feedback device and/or metronome must be used if available.
- Pauses in CPR for rhythm checks, defibrillation or ventilation should be minimised, and usually last no longer than three seconds.
- The person performing chest compressions should hover approximately 5 cm above the patient's chest during the pause.
- Do not perform CPR on a patient who is in a sitting position.

Cardiac Arrest

Cardiac arrest during pregnancy

- In the third trimester of pregnancy, the uterus may impair blood return to the heart when the patient is in the supine position. If possible, tilt the patient to her left by placing a pillow or cushion under her right hip to alleviate this.

Cardiac arrest and implanted defibrillators/pacemakers

- Implanted defibrillators and pacemakers are usually in the soft tissue under the left clavicle (collar bone). Standard procedures should be followed with the defibrillation pads at least 8 cm away from the implanted defibrillator or pacemaker as possible.

Do not resuscitate (DNR) orders/requests

- Do not resuscitate (DNR) and do not attempt resuscitation (DNAR) orders are terms usually used to describe a medical decision that a patient should not be resuscitated in the event of cardiac arrest. Such decisions are commonly made in hospitals and aged residential care facilities if the patient is coming to the end of their natural life.
- If the patient has requested not to be resuscitated:
 - Ask to view the DNR order/request.
 - Start/continue CPR while the order/request is being located.
 - Call the Clinical Desk for advice.
- Use of the term 'DNR' is increasingly uncommon and such requests are now more commonly known as advance directives, advance care plans, end of life care plans and allow natural death requests.
- It is common for family or caregivers to call an ambulance because they are scared and/or want help, even though they know that the patient does not want to be resuscitated. It is appropriate not to commence/continue CPR if the family or caregivers are providing very clear information that the patient does not want to receive CPR, even if a written advance directive cannot be provided. However, CPR should commence/continue if the information is unclear or there is uncertainty, while additional information is sought.

Post Cardiac Arrest Care

- Be prepared to treat further cardiac arrests. If possible, task one person to continually monitor the patient.
 - Update Comms with a sitrep.
 - If the patient is not breathing adequately, ensure an adequate airway and assist breathing as required.
 - If the patient is breathing adequately, administer oxygen via a reservoir mask at 10 litres/minute.
 - Measure vital signs regularly.
 - If the patient is alert, sit them up and continue to monitor.
 - If the patient does not wake up but is breathing adequately, place them on their side (supported) and continue to monitor.
 - If breathing becomes agonal (ineffective or gasping) or the patient no longer has a palpable pulse, recommence CPR. If there is any doubt whether or not the patient is in cardiac arrest, the balance of risk is in favour of performing CPR.
 - Call the Clinical Desk for advice if an ambulance is going to be significantly delayed in locating at the scene.
-

Anaphylaxis

- Perform a primary survey.
- If the patient is status one, status two or deteriorating:
 - Administer an adrenaline auto-injector into the side of their thigh if one is available.
 - Administer oxygen at 6 litres/minute via a simple mask. Increase the flow rate to 8 litres/minute if needed to maintain an SpO₂ of greater than 92%.
 - Call the Clinical Desk immediately for advice on adrenaline IM administration if an ambulance has not already located at the scene.
- Take a history and measure vital signs.
- Update Comms with a sitrep.

Additional information

- Anaphylaxis is a life-threatening allergic reaction.
- The patient should be assumed to have anaphylaxis if they have skin changes such as rash, itch, flushing, swollen lips and/or a swollen tongue plus sudden onset of any of the following:
 - Difficulty breathing, chest or throat tightness, wheeze or stridor.
 - Low blood pressure, fainting or collapse.
 - Vomiting, abdominal pain or diarrhoea.
- The most important aspect of treatment is the early administration of adrenaline IM. If there is any doubt and the patient's condition appears life-threatening, the balance of risk is always in favour of administering adrenaline IM.
- Most patients with known anaphylaxis will have an adrenaline auto-injector and this should be brought to them as soon as possible. If an auto-injector is not immediately available, call the Clinical Desk for advice.

- Perform a primary survey.
- Firmly compress external bleeding.
- Apply an arterial tourniquet (for example a CAT) if there is severe bleeding from a limb that is not easily controlled by direct pressure.
- Update Comms with a sitrep.
- Cover sucking chest wounds with a standard dressing.
- Take a history and measure vital signs.
- Keep the patient as warm as possible.
- Call the Clinical Desk for advice if the bleeding is severe, difficult to control or an ambulance is going to be significantly delayed in locating at the scene.

Additional information

- Control external bleeding with firm and sustained pressure directly over the bleeding point using your hand(s) and a dressing/cloth.
- Applying direct pressure has a higher priority than applying a dressing and/or a bandage.
- There is no benefit to raising a bleeding limb unless the bleeding is clearly venous and coming from near the foot or hand.
- If a penetrating object is present:
 - Remove the object provided it is small (for example, a nail) and it is in the arm or leg.
 - Do not remove the object if it is large (for example, a knife) or if it is in a proximal area (such as the neck, axilla, chest, abdomen or groin).
 - If the object is not removed apply pressure directly on either side of the object.
- Keeping the patient warm:
 - It is important to keep the patient warm because hypothermia worsens bleeding by interfering with blood clotting.
 - Move the patient into a warm environment, which may be the ambulance with the heaters on high and full fan.
 - Remove any wet/damp clothing and ensure the patient is dry.
 - Apply a warming blanket if feasible.

Burns

- Perform a primary survey.
- Administer oxygen at 10 litres/minute via a reservoir mask if the patient has probable smoke inhalation.
- Commence cooling the burn.
- Update Comms with a sitrep.
- Cool the burn for at least 20 minutes. This should be at the scene unless there are other immediately life-threatening injuries.
- Irrigate chemical burns to the eyes for at least 30 minutes.
- Estimate burn size only after cooling is complete.
- Cover burns with cling film only after cooling is complete.
- Take a history and measure vital signs.
- Call the Clinical Desk for advice if the patient is in severe pain, there are signs of airway burns, an ambulance is going to be significantly delayed in locating at the scene or the burn is greater than 20% of body surface area.

Additional information

- If the burns are due to chemical exposure all clothing must be removed (down to underwear) and the patient decontaminated, preferably in a shower.
- If airway burns are suspected, include this in the sitrep. Suspect airway burns if there is any of the following:
 - Burns around or involving the lips.
 - Loss of nasal hair.
 - Visible swelling or burns in the mouth.
 - Hoarse voice or stridor.
 - Black sputum.
- Burns are preferably cooled using cool (not ice cold) running water:
 - There is benefit in cooling the burn up to three hours post injury.
 - Beware of hypothermia during cooling, particularly if the patient is a small child or the burn is large.
 - Cool the burn but keep the patient warm.

Burns

- Burn gels provide analgesia but are not a substitute for 20 minutes of cool running water, provided this is available. If burn gels are used they should be applied after cooling is complete.
 - Estimate burn size only after cooling is complete:
 - Do not include superficial (like sunburn) burns.
 - The preferred method is to use a piece of paper the same size as the patient's hand (including their fingers). This represents 1% of body surface area.
 - It is very easy to overestimate burn size. As a general guide, to have more than 20% burns requires the equivalent of more than the entire front of the patient's chest and abdomen to be burnt.
-

Severe Traumatic Brain Injury

This guideline is for patients who are unresponsive or only responding to pain, and have a suspected traumatic brain injury.

- Perform a primary survey.
- Take a history and measure vital signs, including a blood glucose level.
- Update Comms with a sitrep.
- Place the patient on their side (supported) with their spine in neutral alignment (straight) and ensure an open airway.
- Administer oxygen at 10 litres/minute via a reservoir mask.
- Call the Clinical Desk for advice if the patient is agitated or an ambulance is going to be significantly delayed in locating at the scene.

Additional information

- The most important aspects of treating a patient with traumatic brain injury are to ensure an adequate airway, adequate breathing and to administer oxygen if indicated.
- All patients with an altered level of consciousness after trauma should be treated as if they have traumatic brain injury, even if alcohol or drug intoxication is suspected to be contributing to their altered level of consciousness.
- Cervical spine immobilisation is not a priority. The patient should be placed on their side if required (regardless of having a suspected spinal injury), minimising unnecessary movement.
- Hypoglycaemia (low blood glucose) can mimic traumatic brain injury and a blood glucose level should always be measured. If the blood glucose level is less than 3.5 mmol/L, then this should be treated using the 'diabetic emergencies' guideline in this Field Guide.

This guideline is for patients who are alert or responding to voice and have a mechanism of injury consistent with traumatic brain injury (TBI).

- Perform a primary survey.
- Take a history and measure vital signs, including a blood glucose level.
- Update Comms with a sitrep.
- Assess the patient for signs and symptoms of concussion:
 - Assess the patient's level of consciousness, including GCS if trained to do so.
 - Assess for symptoms such as headache and nausea.
 - Assess for signs such as vomiting, disorientation or reduced attention.
 - Assess for short term memory loss. For example, ask the patient what day of the week it is and what they were doing prior to the injury.
 - Assess coordination and balance by watching the patient walk.
- If the patient has nausea and/or vomiting, treat the patient as per the ['nausea and/or vomiting'](#) guideline.
- If concussion is suspected:
 - Advise the patient to cease activity which might risk another concussion, for example sport.
 - Seek advice via the Clinical Desk regarding transport/referral.

Additional information

- Concussion is a form of TBI where no detectable injury is present on CT brain imaging, but the patient has signs or symptoms of altered brain function.
- Concussion can occur without loss of consciousness.
- The associated symptoms are often significant and may impair brain function for many months.
- Concussion is most often thought of as being associated with contact sports, but also commonly occurs with assaults, falls, and minor road traffic crashes.
- It is a common request for clearance to be provided at sporting events, to enable the injured person to continue with the sporting activity, however First Responders cannot provide clearance.

Limb and/or Soft Tissue Injuries

- Perform a primary survey.
- Take a history and measure vital signs, including limb baselines in the injured limb(s).
- Update Comms with a sitrep.
- Call the Clinical Desk for advice if the patient is in severe pain, there is significant limb compromise or an ambulance is going to be significantly delayed in locating at the scene.

Additional information

- Splinting a fracture will usually provide some pain relief, but this is not a priority unless an ambulance is going to be significantly delayed in locating at the scene. Take a photo (using ePRF if available) of the fracture before applying a splint if possible.
- There is no urgency to dress or splint an open fracture, but this may occur if an ambulance is going to be significantly delayed in locating at the scene. Take a photo (using ePRF if available) of the open fracture before applying a dressing or splint if possible.

Cervical Spine Injury

- Perform a primary survey.
- Take a history and measure vital signs.
- Suspect cervical spine injury if the patient has:
 - Pain in their neck, or
 - Weakness or altered sensation in their limbs.
- Update Comms with a sitrep.
- Minimise unnecessary movement of the patient and maintain their spine in neutral alignment (straight) when feasible.
- **If the patient is alert and cooperative:** instruct the patient to minimise movement of their spine until assessed by personnel with ATP, a registered medical or nurse practitioner or a PRIME responder.
- **If the patient is only responding to voice or is uncooperative:**
 - Minimise patient movement by instructing them to remain still and/or providing manual stabilisation of their head and neck.
 - Stop attempts to provide manual stabilisation if this worsens their level of agitation.
- **If the patient is only responding to pain or is unresponsive:**
 - Place the patient on their side (supported) if feasible, and
 - Ensure their airway is open using head tilt/chin lift, and
 - Keep their spine in neutral alignment (straight) using manual stabilisation of the head and neck, and
 - Administer oxygen at 10 litres/minute via a reservoir mask.
- Call the Clinical Desk for advice if the patient has paralysis, weakness or altered sensation in their limbs, or an ambulance is going to be significantly delayed in locating at the scene.

Additional information

- Maintaining adequate airway and breathing is far more important than spinal immobilisation.
- Cervical collars are not routinely recommended because they may cause harm and there is no useful evidence they reduce the risk of further spinal injury.
- First Responders are trained in how to apply a cervical collar, but should only do so if instructed by personnel with ATP, a registered medical or nurse practitioner, a PRIME responder or personnel on the Clinical Desk.

Cervical Spine Injury

- Symptoms of spinal injury include pain in the spine, tingling/numbness or weakness in the limbs.
 - Do not be concerned about spinal injury if the patient is alert, cooperative and does not have pain in their spine.
 - If the patient needs to be moved, do so with their spine in neutral alignment whenever feasible, noting that even if the spine is injured, gentle movement will not cause further injury to the spine.
 - If the patient's spine is not in neutral alignment (for example, their spine is bent), place the patient in neutral alignment as soon as possible.
 - If the patient needs to be carried or moved, manual stabilisation of the head and neck or head blocks/rolled towels placed at the side of the head are the preferred means of stabilising the patient's head and neck.
 - Tape should not be applied to the patient's head as a means of stabilising the spine, but may be used during extrication on a device such as a scoop stretcher or combi-carrier. Once extricated, the tape must be removed.
-

Amputation

- Perform a primary survey.
 - Compress significant external bleeding and apply a tourniquet if required.
 - Take a history and measure vital signs.
 - Update Comms with a sitrep.
 - Recover the amputated part(s) provided it is feasible and safe to do so.
 - Take a photo of the amputated part(s) if possible.
 - Protect the amputated part(s) as soon as possible:
 - Wash the amputated part(s) using clean running water or 0.9% sodium chloride if severely contaminated but this is not a priority and significant time should not be taken to accomplish this.
 - Wrap in a clean damp towel or dressing.
 - Place into a clean (preferably sealed) plastic bag and place this into a second plastic bag.
 - Place a mixture of water and ice (icy slush) in the second (outer) plastic bag. It is acceptable to use cold packs and water if ice is not available.
 - Do not allow the part(s) to come into direct contact with ice, or into prolonged direct contact with fluid.
 - Call the Clinical Desk for advice if the patient is in severe pain, or an ambulance is going to be significantly delayed in locating at the scene.
-

Crush Injury

This guideline is for patients with an entire lower limb (or more) trapped under a weight for more than 60 minutes.

- Perform a primary survey.
- If there is a significant risk of asphyxiation (for example, the weight is on the head and/or chest). The weight must be removed as soon as possible. In other circumstances, it is appropriate to delay the release of the weight to seek further guidance via the Clinical Desk.
- Call the Clinical Desk for advice.
- Apply a tourniquet to the crushed limbs if possible.
- Acquire a 3 lead ECG.

Additional information

- When a patient has been trapped under a weight for greater than 60 minutes, and the crushed area is an entire lower limb (or more), there is a high risk of death when the weight is released.

Assessing Level of Consciousness

The AVPU acronym

- Utilise the acronym AVPU:
 - A** Alert
 - V** Voice
 - P** Pain
 - U** Unresponsive
- The patient is alert if they are awake and able to communicate.
- The patient is responsive to voice if they only respond when you talk to them. The response could be coherent words, confused words, a grunt or movement of a limb.
- The patient is responsive to pain if they only respond to you after you apply painful stimuli, for example a trapezius squeeze. The response could be coherent words, confused words, a grunt or movement of a limb.
- The patient is unresponsive if they do not respond or move with any stimuli.

The Glasgow Coma Scale

- Assess using the GCS only if trained to do so, noting this is not mandatory at First Responder level.

Adult Glasgow Coma Scale

Best eye opening	
Spontaneous	4
To command, speech or sound	3
To pain or pressure	2
None	1
Best verbal response	
Orientated with normal content	5
Confused but speaks in sentences	4

Assessing Level of Consciousness

Discernible words only	3
Groans/grunts only with no discernible words	2
None	1
Best motor response	
Obeys commands	6
Localises or has purposeful movement	5
Withdraws from pain or normal flexion	4
Abnormal (spastic) flexion	3
Extension or rigid	2
None	1

Infant Glasgow Coma Scale

Best eye opening	
Spontaneously	4
To voice or touch	3
To pain or pressure	2
None	1
Best verbal response	
Smiles, babbles, coos	5
Cries normally	4
Cries only to pain or pressure	3
Moans or grunts	2
None	1
Best motor response	
Normal spontaneous movement	6

Assessing Level of Consciousness

Localises or has purposeful movement	5
Withdraws from pain or normal flexion	4
Abnormal (spastic) flexion	3
Extension or rigid	2
None	1

The AEIOU TIPS acronym is a useful tool to assist in identifying the cause for a patient's altered level of consciousness.

- A** Alcohol intoxication
- E** Epilepsy
- I** Insulin (diabetic problem)
- O** Overdose
- U** Uraemia (raised level of urea in the blood)
- T** Trauma, temperature, or tumour
- I** Infection
- P** Psychiatric problem or poisoning
- S** Shock or stroke

Historically the 'U' has stood for 'underdose' within the AEIOU TIPS acronym, however underdose has been removed from the acronym because in the absence of hypoglycaemia, underdosing of a medicine dose not result in an altered level of consciousness.

The Agitated Patient

- Assess and manage the risks using the TENR tool. Leave the scene and request police if there is a significant risk of physical harm to personnel, the patient or bystanders.
- Attempt verbal de-escalation.
- Perform a primary survey.
- Take a history and measure vital signs, including a blood glucose level. If the BGL is less than 3.5 mmol/L, treat using the '[diabetic emergencies](#)' guideline.
- Update Comms with a sitrep.
- Call the Clinical Desk for advice if the agitation is severe, physical restraint is required or an ambulance is going to be significantly delayed in locating at the scene.

Additional information

- Agitation can be caused by drugs, traumatic brain injury, hypoglycaemia, infection, mental illness, dementia and drug withdrawal (particularly alcohol).

The TENR tool

- T** Assess the **threat** of physical harm. For example, consider:
 - Intent.
 - Capability.
 - Opportunity.
 - The physical environment.
- E** Assess and mitigate the **exposure** to physical harm. For example, consider:
 - Safety and a safety plan.
 - What resources are required.
 - The consequences of the safety plan failing.
- N** Assess the **necessity** to act. For example:

The Agitated Patient

- » Consider the urgency of the need for treatment and/or transport.
- » Throughout the course of the incident, continually reassess the necessity to act.

R Develop a **response** plan.

- » The response must be proportionate and appropriate for the level of risk.
- » The response must be in accordance with these CPGs and with the law.
- » Throughout the course of the incident continually reassess the response plan.

Verbal de-escalation

- » Provided there is no immediate danger to people, verbal de-escalation must be attempted before providing physical restraint.
- » The key aspects to successful verbal de-escalation are:
 - » Allow sufficient time. 15–20 minutes may be required.
 - » Maintain approximately two metres between you and the patient.
 - » Have only one person talk to the patient.
 - » Use a calm reassuring voice. Sit if possible.
 - » Use short sentences and keep messages simple.
 - » Minimise the number of people in the immediate vicinity.
 - » Limit unnecessary noise and distractions.
 - » Offer choices if appropriate, for example offer a drink or cigarette.

Providing physical restraint

- » Physical restraint should usually only be provided following advice from the Clinical Desk.
- » Physical restraint must only be used if it is required to ensure safety of the patient and/or personnel.
- » Use the minimum amount of physical restraint required to ensure safety.
- » Never restrain the patient face down and never restrain the patient with weight on their neck, chest, back or abdomen, as these risk causing respiratory arrest.
- » All forms of physical restraint must be documented.

The Agitated Patient

Diabetic Emergencies

- Perform a primary survey.
- Take a history and measure vital signs, including a blood glucose level.
- Update Comms with a sitrep.
- If the blood glucose level is less than 3.5 mmol/L:
 - Administer oral glucose or food if the patient is awake and able to swallow.
 - Call the Clinical Desk for instructions on additional treatment if the patient is unresponsive or unable to swallow. Additional treatment options include glucagon IM.

Additional information

Hypoglycaemia (low blood glucose)

- Hypoglycaemia occurs most commonly in patients with diabetes who are taking insulin or medicines to lower their blood glucose.
- Signs and symptoms of hypoglycaemia include:
 - Confusion.
 - Loss of concentration or coordination.
 - Erratic or unusual behaviour. The patient may appear 'drunk'.
 - Loss of consciousness.
 - Seizures.
- Examples of suitable oral glucose or food include: 1–2 sachets of glucose gel, half a cup of 'non-diet' fruit juice or soft drink, one tablespoon of sugar, one tablespoon of honey or six squares of chocolate. However, any form of food is better than no food.

Hyperglycaemia (high blood glucose)

- Hyperglycaemia is usually only significant when the blood glucose concentration is greater than 20 mmol/L.
- Hyperglycaemia may cause acid build up within the body and/or dehydration.
- Signs and symptoms include:
 - An increased respiratory rate, increased heart rate and poor perfusion.
 - Vomiting and/or feeling very unwell.

Diabetic Emergencies

- IV fluid may be required if the patient has hyperglycaemia and is very unwell. Notify Comms because this may alter the choice of backup.
-

Poisoning

- Perform a primary survey.
- Take a history and measure vital signs, including a blood glucose level.
- Update Comms with a sitrep.
- If the patient is unresponsive or only responding to pain:
 - Place the patient on their side and ensure an open airway using head tilt/chin lift or jaw thrust.
 - Administer oxygen at 10 litres/minute via a reservoir mask.
- Administer oxygen at 10 litres/minute via a reservoir mask if carbon monoxide poisoning is suspected.
- Call the Clinical Desk for advice if the patient is very agitated or an ambulance is going to be significantly delayed in locating at the scene.
- Identify the poison(s) if possible but do not collect samples.

Additional information

- An altered level of consciousness following poisoning is usually caused by alcohol, antidepressants, sedatives, recreational drugs, opiates or a combination of these.
- Identifying the poison(s) is not a priority as the treatment of poisoning is rarely poison or drug specific, but is focused on supporting airway, breathing and circulation.
- Do not induce vomiting as this may cause oesophageal injury.

Seizures

- Perform a primary survey.
- **If the patient is still seizing:**
 - Place on their side (if feasible) and protect from harm.
 - Administer oxygen at 6 litres/minute via a simple mask. Increase the flow rate to 8 litres/minute if needed to maintain an SpO₂ of greater than 92%.
 - Measure a blood glucose level.
 - Administer any prescribed medicines for seizures via the rectal, nasal or buccal (mouth) route, providing they have been prescribed for that patient and the seizure continues for more than five minutes.
- **If the patient has stopped seizing:**
 - Place on their side and ensure an open airway using head tilt/chin lift or jaw thrust.
 - Check normal breathing has resumed.
 - Administer oxygen at 6 litres/minute via a simple mask, if unresponsive or responding only to pain. Increase the flow rate to 8 litres/minute if needed to maintain an SpO₂ of greater than 92%.
 - Take a history and measure vital signs, including a blood glucose level.
- Update Comms with a sitrep.
- If the blood glucose level is less than 3.5 mmol/L, treat using the '[diabetic emergencies](#)' guideline.
- Call the Clinical Desk for instructions on additional treatment if the patient does not stop seizing after five minutes, advice is required on administering the patient's own medicines or an ambulance is going to be significantly delayed in locating at the scene. Additional treatments include midazolam IM.

Additional information

- Signs of seizures include jerking or twitching of the face and limbs, foaming at the mouth, loss of consciousness and loss of bowel and/or bladder control.
- Time the seizures whenever feasible.
- Most seizures last a few minutes and then stop. Following the seizure it is common for the patient to take 5–10 minutes to become responsive and then be drowsy or confused for up to several hours. This is called the postictal period.
- Sometimes children (usually aged less than six years of age) can have seizures as a result of a rapid temperature rise, commonly due to a viral illness. If the child feels very hot or has a temperature of more than 40 degrees, cool them slowly by uncovering them.

Seizures

- Occasionally a seizure is the first sign of cardiac arrest and in this setting the seizure will stop within a few minutes. This is why it is important to check that normal breathing has resumed. If normal breathing has not resumed, treat as cardiac arrest and start CPR.
-

Birth

Normal birth

- Support the patient to adopt the position they prefer.
- Support the baby's head and shoulders as they appear, without applying traction.
- Support the baby's body as it appears, without applying traction.
- Document the time of birth.
- Place the baby skin to skin with the mother and initiate drying.
- Ensure a warm environment and continue to keep the baby skin to skin with the mother, provided neither requires immediate treatment. Place a hat on the baby if one is available and cover the torso of the mother and baby with a warm blanket.
- Regularly observe and document the baby's activity and breathing.
- Clamping and cutting the cord is not urgent unless this is required to facilitate urgent treatment of the mother or baby. Call the Clinical Desk for advice if urgent treatment of the mother or baby is required, or if an ambulance is going to be significantly delayed in locating at the scene.
- Allow the placenta to deliver spontaneously without applying traction. This usually occurs within 60 minutes. Place the placenta in a suitable container and keep it with the mother.

If the cord is wrapped around the neck

- This is quite common and is not an emergency.
- If the cord is loose and is easy to slip over the baby's head, then do so. If you cannot easily slip it over the head, allow birth to continue.

Cultural considerations

- Whenua (placenta) is sacred to Māori, and care should be taken in how it is handled. The whānau may have an ipu whenua (placental burial box) for it, and unless they permit otherwise, plastic bags should not be used.
- Karakia may be performed by the whānau after the birth of the child – it is important to allow time for this.
- The whānau/family may wish to use natural materials such as pounamu and flax to cut and tie the umbilical cord.

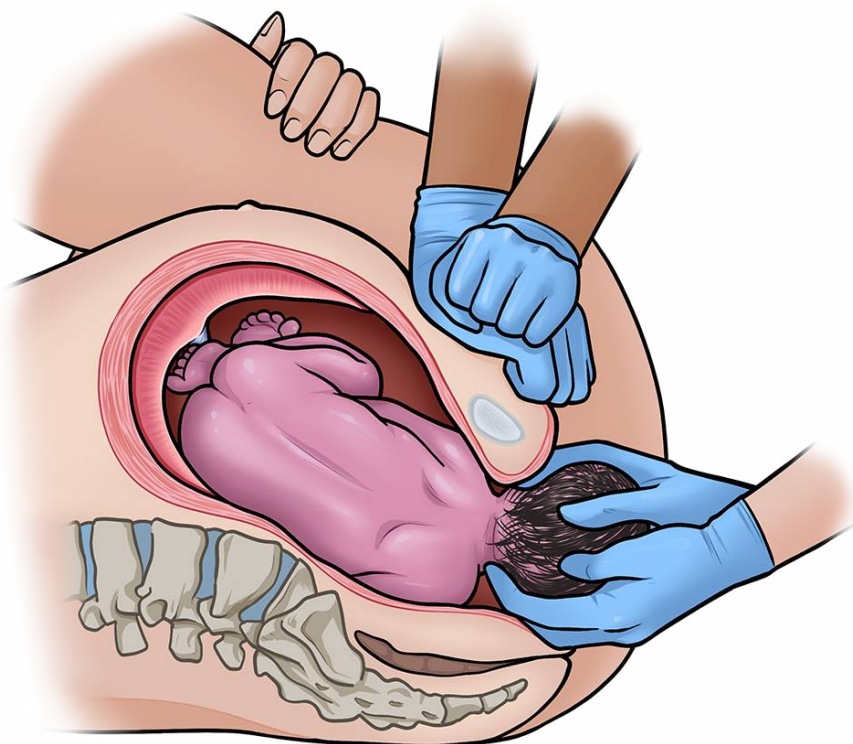
Birth Emergencies

This guideline is for First Responders who are awaiting backup from personnel with ATP. If a First Responder is on scene with personnel with ATP, it is likely the birth emergency action lists in the Clinical Practice Guidelines will be utilised, and not this guideline.

Shoulder dystocia

- Shoulder dystocia is when the baby's head is born, but birth does not occur within the next two contractions. The head may appear and then retract. It is potentially life-threatening for the baby.
- Call for urgent help from a midwife (if one is immediately available) and request ICP/CCP backup.
- Call the Clinical Desk urgently for advice.
- Get the legs up.
 - Assist the mother to pull their knees as high as possible toward their armpits.
 - If after the next contraction with the mother pushing, the baby is not born, move to the next step.
- Roll onto hands and knees.
 - Assist the mother to roll onto her hands and knees.
 - If after the next contraction with the mother pushing, the baby is not born, move to the next step.
- Roll onto the back, get legs up, and apply pressure directly above the pubic bone:
 - Assist the mother to roll onto their back.
 - Assist the mother to pull their knees as high as possible towards their armpits.
 - Have an assistant place their hands (using a CPR 'like' position) directly above the mother's pubic bone and push firmly and continuously, straight back.
 - Support the baby's head.

Birth Emergencies



- » If after the next contraction with the mother pushing the baby is not born, call the Clinical Desk if not already done so.
- » Advice may be provided via the Clinical Desk regarding:
 - » Attempting to remove the posterior shoulder of the baby, and
 - » Commencing urgent transport and meeting backup en route.
- » Prepare for newborn resuscitation.

Breech delivery

- » This is when the baby is coming out feet or buttocks first. It is potentially life-threatening for the baby.
- » Call for urgent help from a midwife (if one is immediately available) and request ICP/CCP backup.
- » Call the Clinical Desk urgently for advice.
- » Instruct the patient not to push.
- » Assist the mother to roll onto her hands and knees, with her pelvis positioned higher than her head.

Birth Emergencies

Prolapsed umbilical cord

- This is when the umbilical cord appears in the vagina ahead of the baby. It is potentially life-threatening for the baby.
- Call for urgent help from a midwife (if one is immediately available) and request ICP/CCP backup.
- Call the Clinical Desk urgently for advice.
- Instruct the patient not to push.
- Assist the mother to roll onto her hands and knees, with her pelvis positioned higher than her head.
- Advice may be provided via the Clinical Desk to commence urgent transport and meet backup en route.
- Prepare for newborn resuscitation.

Supine hypotension

- After 20 weeks gestation, low blood pressure can occur when a pregnant patient is lying supine because the weight of the baby impedes blood flow back to the heart.
- To avoid this, always tilt the patient 30 degrees (or more) to their left by placing a rolled towel or pillow under their right hip.

Retained placenta

- This is when the placenta has not been delivered within 60 minutes of birth.
- Call for help from a midwife (if one is immediately available) and request Paramedic backup.
- Call the Clinical Desk for advice, which may include commencing transport and meeting backup en route.
- Monitor closely for signs of moderate to severe bleeding.

Newborn Resuscitation

This guideline is for the resuscitation of babies immediately following birth.

- Place the baby skin to skin with the mother.
- Provide external stimulation while drying the baby.
- Maximise the external temperature and place a hat on the baby if possible.
- Observe the baby's movement and breathing.
- Commence CPR at a ratio of 3:1 if the baby's breathing is inadequate after one minute.

Additional information

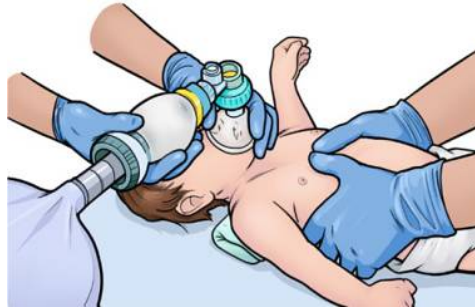
- A crying and/or active baby requires no specific intervention.
- Preventing heat loss is vital:
 - The torso and limbs of a premature baby requiring resuscitation should be immediately wrapped in plastic without being dried and placed in a hot environment as soon as possible (including using a warming blanket).
 - A term baby should be dried and resuscitated in a hot environment if possible.
 - A hat should be placed on the baby if one is available.
 - The interior of the ambulance should be made as hot as possible.
- When performing CPR on a newborn baby, a ratio of 3:1 is important because newborns have a higher oxygen demand than older patients.
- There are two approved techniques for performing chest compressions on newborns:

Two finger method



Newborn Resuscitation

Two hand encircling technique



Pregnancy-Related Bleeding

This guideline is for patients who have vaginal bleeding and are known to be pregnant or have given birth in the last six weeks.

- Perform a primary survey.
- Take a history and measure vital signs.
- Call for help from a midwife (if one is immediately available) and request ICP/CCP backup.
- Call the Clinical Desk for advice.
- Visually examine the vagina externally (with the patient's consent) and place pressure on any compressible site of bleeding (for example, a tear or laceration), if the patient is post-birth.
- Keep the patient warm, including using a warming blanket if available.

Additional information

- Additional clinical judgement must be used when gaining consent in an emergency, for example if the patient has an altered level of consciousness. In this setting it is appropriate to initiate emergency interventions which explaining what is being done.

Drowning

- Perform a primary survey.
- If the patient is **in cardiac arrest**:
 - Commence CPR at a ratio of 15:2.
 - Attach an AED/defibrillator in automatic mode and follow the instructions/prompts.
 - Update Comms with a sitrep.
- If the patient is **not in cardiac arrest**:
 - Place on their side and ensure an open airway using head tilt/chin lift or jaw thrust if the patient is not alert.
 - Take a history and full set of vital signs.
 - Administer oxygen at 6 litres/min via a simple mask. Increase the flow rate to 8 litres/minute if needed to maintain an SpO₂ of greater than 92%.
 - Update Comms with a sitrep.

Additional information

- Drowning occurs when a patient has impaired lung function as a result of inhaling liquid (aspiration) following immersion or submersion in liquid.
- Following drowning, the patient may or may not have had a cardiac arrest, and may or may not survive, but if the patient has abnormal lung function then the patient has drowned.
- The key to surviving cardiac arrest secondary to drowning is rapid rescue and early CPR, with a focus on ventilation.
- There is no role for ventilation or CPR while the patient is still in the water.

Hyperthermia

This guideline is for patients with hyperthermia following environmental exposure and/or exertion.

- Perform a primary survey.
- Transfer the patient into a cool environment as soon as possible.
- Take a history and measure vital signs.
- Update Comms with a sitrep.
- Keep the patient supine if they are not alert.
- Cool the patient:
 - Remove excess clothing.
 - Apply cool water to the head and skin.
 - Ensure airflow over the patient, utilising a fan if available.
 - Provide a cool drink if feasible.
 - Call the Clinical Desk for advice if the patient has an altered level of consciousness, agitation, or an ambulance is going to be significantly delayed in locating at the scene.

Additional information

- Hyperthermia is defined as a core body temperature of greater than 38°C.
 - A patient with mild hyperthermia (38-39°C) will usually have an elevated heart rate, elevated respiratory rate, and sweating.
 - A patient with moderate hyperthermia (39-40°C) will usually have an elevated heart rate, elevated respiratory rate and sweating, and may have lethargy, nausea and vomiting, headache and disorientation.
 - A patient with severe hyperthermia (>40°C) may have an altered level of consciousness, confusion, absence of sweating, dry and hot skin, and seizures.
- Avoid inducing shivering during cooling as this will increase the body's heat production.
- Do not apply ice or ice packs directly to the skin as this may cause skin injury.
- Agitation is common in the setting of severe hyperthermia.

Hypothermia

This guideline is for patients with hypothermia following environmental exposure.

- Perform a primary survey.
- If the patient is **in cardiac arrest**:
 - Commence CPR at a ratio of 30:2.
 - Attach an AED/defibrillator in automatic mode and follow the instructions/prompts.
 - Update Comms with a sitrep.
- If the patient is **not in cardiac arrest**:
 - Transfer the patient into a warm and dry environment as soon as possible and/or reduce environmental exposure.
 - Remove wet clothing and ensure the patient is dry.
 - Take a history and measure vital signs, including a blood glucose level. If the BGL is less than 3.5 mmol/L, treat using the '[diabetic emergencies](#)' guideline.
 - Update Comms with a sitrep.
 - Provide a warm drink (preferably containing sugar) and warm food, provided the patient can safely swallow.
 - Utilise a warming blanket if the patient's temperature is less than 35°C.
 - Keep the patient supine and minimise unnecessary movement if the patient is not alert.

Call the Clinical Desk for advice if the patient has an altered level of consciousness or an ambulance is going to be significantly delayed in locating at the scene.

Additional information

- Hypothermia is defined as a core body temperature of less than 35°C. It is usually due to excessive exposure to a cold environment.
 - A patient with mild hypothermia (32-35°C) will usually have an elevated heart rate, an elevated respiratory rate, shivering, poor coordination, lethargy, and confusion.
 - A patient with moderate hypothermia (28-32°C) will usually have a slow heart rate, slow respiratory rate, low blood pressure, an absence of shivering, and an altered level of consciousness.
 - A patient with severe hypothermia (<28°C) will usually be unconscious, have a severely low heart rate and respiratory rate, unreactive pupils, and may be in cardiac arrest.
- Hypoglycaemia may occur in patients with hypothermia, due to depletion of blood glucose following prolonged shivering.
- Do not place a heat source directly against the skin as this may cause injury.

Hypothermia

- Place a hat on the patient if one is available, provided the patient is not in cardiac arrest.
 - Keep the interior of the ambulance as hot as possible. In particular, heat the interior of the ambulance before the patient is placed inside.
 - Eating food, provided the patient can safely swallow, generates heat from the increase in metabolism that occurs as food is digested.
-

SCUBA Diving Emergencies

- Perform a primary survey.
- Position the patient flat.
- Take a history and measure vital signs.
- Place the patient on their side and ensure an open airway using head tilt/chin lift or jaw thrust, if unresponsive or responding only to pain.
- Administer oxygen at 10 litres/minute via a reservoir mask.
- Update Comms with a sitrep.
- Call the Clinical Desk for advice if the patient is in severe pain or an ambulance is going to be significantly delayed in locating at the scene.

Additional information

- The most common SCUBA diving emergency is decompression sickness or 'the bends'. This occurs when gases (predominantly nitrogen) that are dissolved in body fluids expand to form bubbles, in the same way that occurs when a carbonated drink is opened.
- The patient may have any combination of the following:
 - Joint pain, particularly in large joints.
 - Headache.
 - Visual disturbance.
 - Itching skin, or a feeling of 'insects crawling on the skin'.
 - Altered sensation or movement in the limbs.
 - Reduced level of consciousness.
- Notify Comms if the patient clearly has a SCUBA diving emergency as this may alter what hospital the patient is transported to and thus what transporting resources are sent to the scene.

Stroke

- Perform a primary survey.
- Take a history and measure vital signs, including a blood glucose level. If the BGL is less than 3.5 mmol/L, treat using the '[diabetic emergencies](#)' guideline.
- Perform a FAST assessment.
- Update Comms with a sitrep.
- Call the Clinical Desk for advice if there are clear signs or symptoms of a stroke and an ambulance is going to be significantly delayed in locating at the scene.

Additional information

- A stroke occurs when blood supply is lost to part of the brain. The most common cause is a blood clot within a blood vessel. For some patients treatment within hospital can restore blood flow and the time to receiving treatment is very important.
- To perform a FAST assessment:
 - F** **Face:** Look for new onset of one-sided facial weakness. Ask the patient to smile and show their teeth/gums. If there is new asymmetry the FAST test is positive.
 - A** **Arm:** Look for new onset of one-sided arm weakness. Ask the patient to raise their arms to 90° from the body, with their palms facing upward. Ask the patient to close their eyes and keep their arms raised. Look for inability to raise one arm or for one arm that drifts downward. If there is new weakness in either arm the FAST test is positive.
 - S** **Speech:** Look for new onset of abnormal speech. Ask the patient to repeat a sentence and listen for slurring of words. Ask the patient to name several common objects shown to them and observe any difficulty or inability to name them. If there is new onset of abnormal speech the FAST test is positive.
 - T** **Time:** If the FAST test is positive, determine and record the last known well time. The last known well time is the time that the patient was last seen or known to be symptom free. If the patient has woken up with symptoms, record the last known well time (this will usually be the time they went to sleep) in addition to the time of waking.
- If there are any abnormalities in the FAST assessment, the patient must be presumed to be having a stroke until proven otherwise.

Meningococcal Septicaemia

- Perform a primary survey.
- Take a history and measure vital signs.
- Update Comms with a sitrep.
- Suspect meningococcal septicaemia if the patient appears unwell and has spots on their skin like small bruises:
 - Limit the number of personnel within two metres of the patient, don gloves and a medical mask, and consider donning eye protection and a gown/overalls/apron.
 - Call the Clinical Desk immediately for additional instructions. Take a photo of the spots using your phone (with the patient's permission if possible) so that you can text or email the photo to Clinical Desk personnel. Additional treatments include ceftriaxone IM. If ceftriaxone is not available Clinical Desk personnel may request a local doctor or nurse to attend and administer an antibiotic.

Additional information

- Meningococcal septicaemia is infection within blood from meningococcal bacteria (*Neisseria meningitidis*). It is uncommon but has a high mortality rate.
- Meningococcal septicaemia is time critical in terms of commencing treatment and antibiotics should be administered out-of-hospital whenever possible.
- Meningococcal septicaemia commonly triggers a combination of bleeding and clotting within small blood vessels throughout the body, and this causes spots to appear on the skin. These spots look like small bruises (not like a red rash) that do not blanch (disappear briefly) when pressed on.
- Meningococcal septicaemia usually causes the patient to look and feel very unwell, with signs of shock such as a fast heart rate and mottled peripheries.
- Meningitis is commonly confused with meningococcal septicaemia, but it is a completely different disease.
 - Meningitis is due to infection of the surface (meninges) of the brain. The most common cause is a virus.
 - The patient will usually have a headache and fever. They may also have nausea, a stiff neck and eyes that are sensitive to light (photophobia).
 - Antibiotic treatment is not time critical.
- Meningococcal bacteria are transmitted between people in droplets, in the same way as influenza, however transmission between the patient and treating personnel is rare.

Meningococcal Septicaemia

Infectious disease precautions

- If contact with droplets from the patient has possibly occurred (for example, the patient coughed directly into the face of personnel not wearing a medical mask), personnel will be offered antibiotic prophylaxis (treatment before onset of disease).
 - Antibiotic prophylaxis is not time critical and can be commenced several days following exposure.
 - Notify your service via your usual reporting process.
 - Notify public health staff (for example via the local 0800 number), including the name and NHI of the patient if possible. Public health staff will contact personnel to discuss antibiotic prophylaxis.
 - Refer to the [‘infectious disease precautions’](#) guideline for advice on vehicle/equipment cleaning and disinfection.
-

Infectious Disease Precautions

Infectious disease	PPE required	Vehicle cleaning
Chicken pox	Airborne	Additional
Clostridium difficile diarrhoea	Contact	Standard
ESBL	Contact	Additional
Gastroenteritis, type not specified	Contact	Standard
Hepatitis A	Contact	Standard
Hepatitis B	Standard	Standard
Hepatitis C	Standard	Standard
HIV	Standard	Standard
Viral respiratory illness	Airborne	Standard
Measles	Airborne	Standard
Meningitis, type not specified	Standard	Standard
Meningococcal disease	Droplet	Standard
MRSA	Contact	Additional
MRO, type not specified	Contact	Additional
Mumps	Droplet	Standard
Norovirus with vomiting	Airborne	Additional
Norovirus without vomiting	Contact	Additional
Pneumonia, type not specified	Standard	Standard
Rotavirus	Contact	Standard
Rubella	Airborne	Standard
Tuberculosis	Airborne	Standard
VRE	Contact	Additional
Whooping cough	Droplet	Standard

➤ ESBL – extended spectrum beta-lactamase producing organism.

Infectious Disease Precautions

- MRSA – methicillin resistant staphylococcus aureus.
- MRO – multi-resistant organism.
- VRE – vancomycin resistant enterococci.

PPE levels

	Gloves	Medical mask	Eye protection	Gown/overalls/apron	N95 mask
Standard	✓	-	?	-	-
Contact	✓	-	?	✓	-
Droplet	✓	✓	?	?	Aerosol procedures
Airborne	✓	-	✓	?	✓

Vehicle cleaning and disinfection levels

Standard level of cleaning and disinfection

- Open all vehicle doors for ten minutes with nobody in the vehicle, if the infectious disease was airborne.
- Wear gloves.
- Decontaminate & disinfect surfaces contaminated with body fluid:
 - Decontaminate using cleaning solution, remove all visible soiling.
 - Wipe with a disinfectant and allow to dry.
- Remove used linen.
- Wipe down the stretcher and all surfaces touched by the patient with disinfectant and allow to dry.
- Wipe down all surfaces in back of vehicle touched by personnel (e.g. monitor) with an approved disinfectant wipe and allow to dry.
- Clean the floor if visibly dirty.
- Replace linen.
- Wash and dry hands.
- Once disinfected surfaces are dry, the vehicle may be used for other patients.

Infectious Disease Precautions

Additional level of cleaning and disinfection

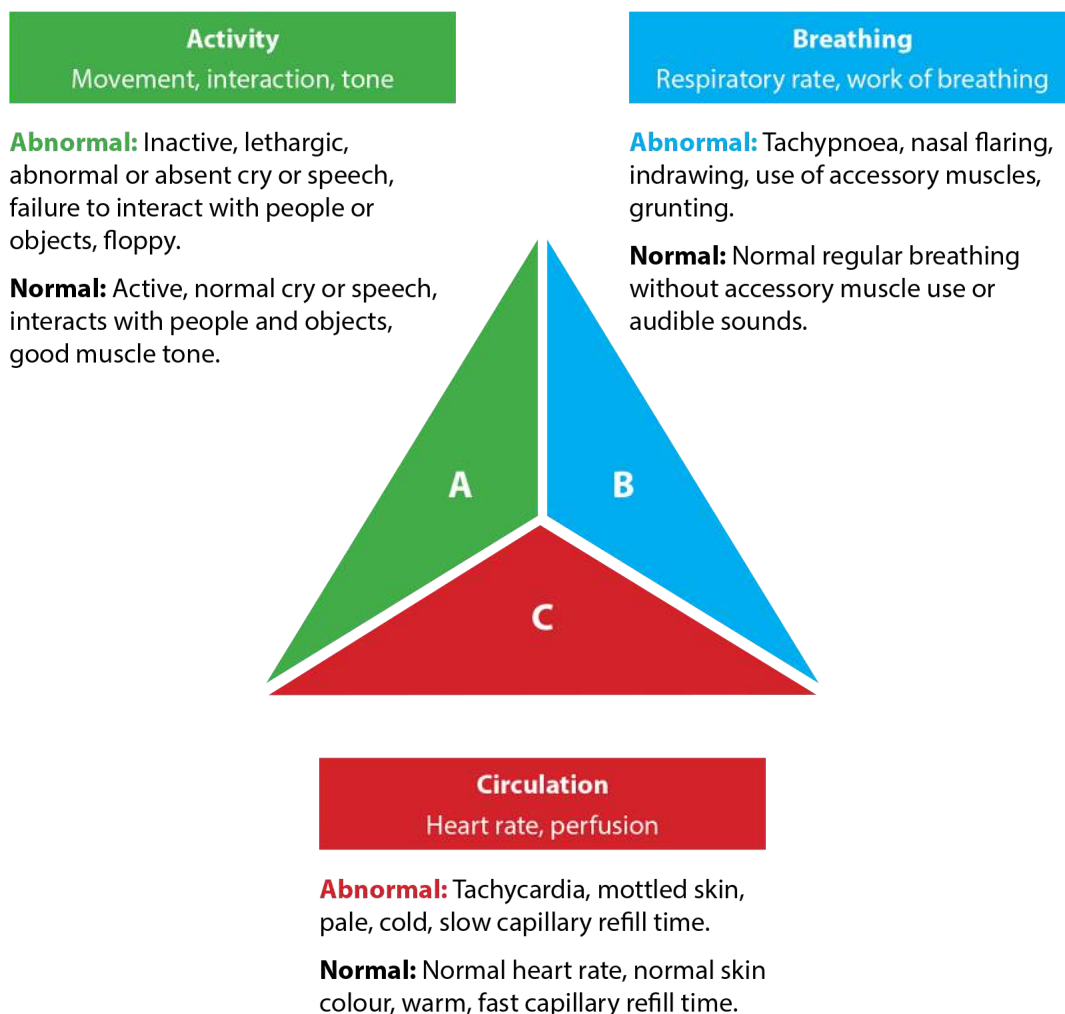
- Standard level cleaning and disinfection plus:
 - Wear gloves and overalls/gown and/or an apron.
 - Wipe down all interior surfaces (including in the front of the vehicle) that the patient or personnel may have touched, with disinfectant and allow to dry.
 - Clean the floor.
 - Once disinfected surfaces are dry, the vehicle may be used for other patients.
-

Assessing Young Children

Assessing Young Children

The paediatric assessment triangle

- A child's general appearance is the most important consideration when determining how severe their illness or injury is, the need for treatment and the response to therapy.
- The paediatric assessment triangle (PAT) is a form of assessment that can be used to help determine the severity of illness or injury. The PAT involves an assessment of activity, breathing and circulation and is performed at the same time as the primary survey.
- The more abnormal the PAT is, the more severe the illness or injury is:
 - If the PAT is normal, the child is unlikely to have severe illness or injury.
 - If one segment of the PAT is abnormal, the child is showing signs of an important illness or injury.
 - If two segments of the PAT are abnormal, the child is seriously ill or injured and is likely to be status two.
 - If three segments of the PAT are abnormal, the child is severely ill or injured and is likely to be status one.



Assessing Young Children

Nausea and/or Vomiting

- Perform a primary survey.
 - Take a history and measure vital signs.
 - Place an alcohol swab under the patient's nose and advise them to inhale the vapour through their nose for several minutes. If effective, this may be repeated as required.
 - Call the Clinical Desk for instructions on additional treatments if the nausea and/or vomiting is severe and an ambulance is going to be significantly delayed in locating at the scene. Additional treatments include ondansetron IM.
-

Anaphylaxis

- Perform a primary survey.
- If the patient is status one, status two or deteriorating:
 - Administer an adrenaline auto-injector into the side of their thigh if one is available.
 - Administer oxygen at 6 litres/minute via a simple mask. Increase the flow rate to 8 litres/minute if needed to maintain an SpO₂ of greater than 92%.
 - Call the Clinical Desk immediately for advice on adrenaline IM administration if an ambulance has not already located at the scene.
- Take a history and measure vital signs.
- Update Comms with a sitrep.

Additional information

- Anaphylaxis is a life-threatening allergic reaction.
- The patient should be assumed to have anaphylaxis if they have skin changes such as rash, itch, flushing, swollen lips and/or a swollen tongue plus sudden onset of any of the following:
 - Difficulty breathing, chest or throat tightness, wheeze or stridor.
 - Low blood pressure, fainting or collapse.
 - Vomiting, abdominal pain or diarrhoea.
- The most important aspect of treatment is the early administration of adrenaline IM. If there is any doubt and the patient's condition appears life-threatening, the balance of risk is always in favour of administering adrenaline IM.
- Most patients with known anaphylaxis will have an adrenaline auto-injector and this should be brought to them as soon as possible. If an auto-injector is not immediately available, call the Clinical Desk for advice.

Minor Allergy

This guideline is for minor allergic reactions (including bites and stings) that are confined to skin involvement.

- Perform a primary survey.
- Take a history and measure vital signs.
- Offer the patient loratadine PO if the patient has a prominent itch:
 - 10 mg (one tablet) for patients aged greater than 5 years.
 - Do not administer loratadine to children aged less than 12 years without seeking clinical advice.
- Do not offer loratadine to the patient if they:
 - Are allergic to loratadine, or
 - Are not alert, or
 - Are pregnant.

Additional information

There may be a role for loratadine PO for itch or rash associated with anaphylaxis, provided all systemic signs of anaphylaxis are improving. However, First Responders must seek clinical advice via the Clinical Desk before administering loratadine in this context.

Epistaxis (Nosebleed)

- Perform a primary survey.
- Take a history and measure vital signs.
- Instruct the patient to sit forward.
- Update Comms with a sitrep.
- Firmly compress the fleshy part of the nose for 15 minutes.
- Call the Clinical Desk for advice if the bleeding continues after firm compression, or is moderate to severe.
- Advise the patient to avoid sniffing or blowing their nose for as long as possible, if the bleeding stops after firm compression for 15 minutes.
- Request urgent backup if bleeding is severe.

Additional information

- Epistaxis is occasionally life-threatening, and this occurs most commonly in elderly patients taking an anticoagulant.
- Firm compression on the fleshy part of the nose for 15 minutes can be difficult for some patients. If the patient is unable to be coached to maintain continuous firm compression, personnel may be required to provide the compression.
- Patients must avoid sniffing or blowing their nose after bleeding has been stopped as there is a risk that these actions could dislodge the clots that have formed in the nose, and re-start the bleeding.

Vital Signs

Respiratory rate (RR)

- Count the number of breaths over 30 seconds and multiply by two.
- A fast RR is an important sign that the patient may be very unwell or badly injured, for example the patient may have respiratory distress or shock.
- The trend of the respiratory rate is more important than a single recording.

Heart rate (HR)

- The HR can be obtained from an ECG monitor or can be estimated by feeling the pulse rate.
- When feeling a pulse rate:
 - The radial pulse is found near the radius bone on the inside of the arm, just above the wrist joint. The radial site is the preferred site unless the patient is very unwell or unconscious.
 - The carotid pulse is found to the side of the laryngeal prominence (the 'Adam's apple') of the neck. The carotid site is the preferred site if the patient is very unwell or unconscious.
 - The femoral site is found in the middle of the skin fold of the groin. The femoral site is the preferred site if the patient has severe shock or is in cardiac arrest.
 - Count the number of pulses over 30 seconds and multiply by two.
- An abnormal HR (for example fast or very slow) is an important sign that the patient may be very unwell or badly injured, for example the patient may have an abnormal heart rhythm or shock.

Blood pressure (BP)

- There are three methods for taking a BP, these are: using a monitor, palpated or auscultated.
- It is acceptable to use a monitor to measure a patient's blood pressure provided a suitable monitor is available and the appropriate sized cuff is used.
- In the absence of a suitable monitor a palpated BP is the preferred method in a noisy environment:
 - Apply the BP cuff to the patient's arm and feel for the radial pulse on the same arm.
 - Inflate the cuff until you can no longer feel the radial pulse.
 - Watching the pressure gauge, slowly deflate the cuff until you can first feel the radial pulse: this is the systolic BP.
 - Round this off to the nearest 5 mmHg and document as the palpated systolic BP.
- In the absence of a suitable monitor an auscultated BP is the preferred method in a quiet environment:

Vital Signs

- » Apply the BP cuff to the patient's arm and place the stethoscope diaphragm over the brachial artery (the inside of the elbow).
- » Place the stethoscope in your ears and inflate the cuff until you can no longer hear the flow sounds (or Korotkoff sounds).
- » Watching the pressure gauge, slowly deflate the cuff until you can first hear the flow sounds: this is the systolic BP.
- » Continue to slowly deflate the cuff until you can no longer hear the flow sounds: this is the diastolic BP.
- » Round each off to the nearest 5 mmHg and document as the systolic/diastolic BP.

Level of consciousness (LOC)

- Refer to the '[assessing level of consciousness](#)' guideline.

Oxygen saturation (SpO₂)

- The SpO₂ is a reading of how much oxygen is in the blood, as a percentage of maximum capacity. It is measured using a pulse oximeter.
- Place the SpO₂ probe on the patient's digit and wait for the recording to display.
- Pulse oximeter readings can be unreliable if the patient is vasoconstricted (for example cold or pale), shaking, moving, has very dirty fingers or has been exposed to carbon monoxide. In particular, the pulse oximeter reading may be invalid if the waveform is poor and/or if the pulse rate measured by the pulse oximeter is different from the heart rate measured by the ECG monitor.
- A normal SpO₂ is greater than or equal to 92% when the patient is breathing air, except in patients with COPD, where a normal SpO₂ is greater than or equal to 88%.

Capillary refill time (CRT)

- CRT is the time taken for colour to return to the capillary bed in the skin, after pressure is applied and then released.
- To measure CRT: press on an area of skin until it blanches, then release and count the number of seconds for the skin colour to return to normal.
- CRT should be measured both peripherally (for example on a limb) and centrally (for example on the patient's sternum).

Vital Signs

- A normal CRT is less than two seconds. A prolonged CRT is a sign that the patient may be very unwell or badly injured, for example the patient may have hypothermia or shock.
- The trend of the CRT is more important than a single recording.

Blood glucose level (BGL)

- The BGL is the concentration of glucose in blood and is measured in mmol/L. A BGL should be measured in all patients with known diabetes and in all patients that are not alert.
- Prepare the lancet and insert a test strip into the glucose meter.
- Select a site to take blood from (usually the side of a fingertip). Swabbing the skin with an alcohol wipe is not routinely required, but should occur if the skin is visibly dirty.
- Push the lancet firmly against the skin and press the trigger button. Place the lancet immediately into a sharps container.
- Lightly squeeze the site to encourage blood to appear if required. Touch the end of the test strip onto the blood and after a few seconds the glucose meter will display a BGL reading. Discard the test strip in a biohazard bag.
- The normal range for a BGL is 3.5-9 mmol/L.

Temperature

- Measuring a temperature is never a priority, but may occur if the patient feels hot or cold.
- The most common method for measuring temperature is using a tympanic thermometer:
 - Place a probe cover on the thermometer and ensure it is turned on.
 - Place the thermometer into the ear canal and push the start button.
 - The thermometer will display the temperature.
- A normal temperature range is 36.5–37.5°C.
- A temperature greater than 37.5°C may be a sign of infection or hyperthermia. A temperature greater than 40 °C is potentially life-threatening.
- A temperature lower than 35°C may be due to hypothermia or may be a sign of shock.

Vital Signs

Vital sign normal ranges

Age	Heart rate	Respiratory rate	Blood pressure (systolic)
<1	110-160	30-40	70-90
1-2 years	100-150	25-35	80-95
2-5 years	95-140	25-30	80-100
5-12 years	80-120	20-25	90-110
> 12 years	60-100	15-20	100-120

Recording vital signs

- Vital signs should be recorded:
 - In all patients unless there is a specific reason not to (including RR, HR, BP, CRT and LOC).
 - When they are a pre-requisite to treatment. For example, a blood glucose level must be recorded before administering oral glucose.
 - Following a treatment that may alter vital signs. For example, a blood pressure must be recorded after assisting a patient to take their prescribed GTN.
- Vital signs should not be recorded if the patient has a time critical problem and the results will not change the treatment that is provided. For example, a blood glucose level should not be recorded prior to adrenaline administration if the patient has anaphylaxis.

The frequency of vital signs recordings

- Vital signs should usually be recorded every 10-15 minutes for a patient that is status one or status two, noting that vital signs are not required if the patient has a time critical problem and the result will not change the treatment provided.
- Vital signs should usually be recorded every 20-30 minutes for patients that are status three or status four.
- Some vital signs are monitored continually (for example heart rate via ECG leads) but are recorded at intervals. It is appropriate to record these if a significant change occurs, or other vital signs (such as blood pressure) are being recorded simultaneously.
- It is usually inappropriate to stop a moving vehicle for the purpose of measuring and/or recording vital signs.

Vital Signs

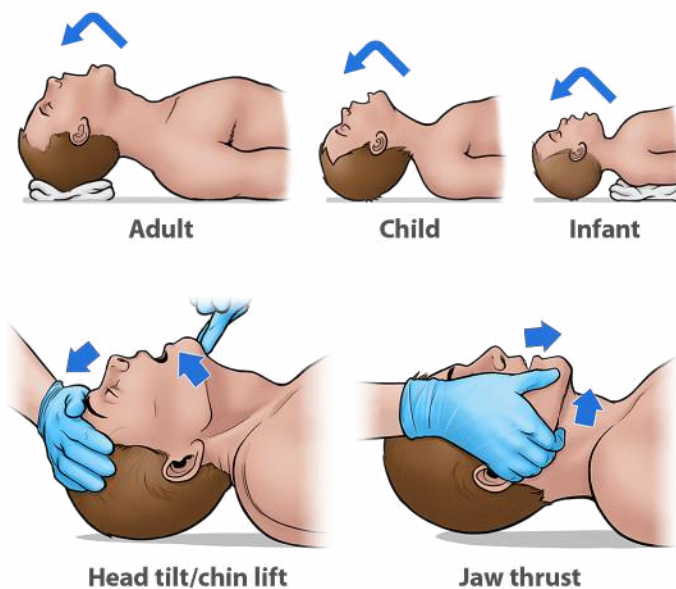
Other clinical signs

- Other clinical signs are obtained by examining the patient. They are just as important as the vital signs and include:
 - » Features of general concern such as pallor or sweating.
 - » Airway noise such as grunting or stridor.
 - » Lung sounds such as wheeze or crackles.
 - » Signs of increased work of breathing such as indrawing and nasal flaring.
 - » Interaction and activity, particularly in small children.
 - » The ability to mobilise normally without assistance.
-

Airway Management

Manual airway manipulation

Optimise the patient's head position to open the airway, regardless of concern about the cervical spine. Head tilt/chin lift is the preferred approach but jaw thrust is acceptable.



Airway Management

Oropharyngeal airway (OPA)

- An OPA should only be placed if the patient has signs of airway obstruction and is only responding to pain or is unresponsive.
- If the patient shows any signs of coughing or gagging on the OPA it must be removed.
- To insert an OPA:
 - Don gloves and safety glasses.
 - Measure the OPA from the corner of the mouth to the angle of the jaw, noting this is not crucial. A green OPA is suitable for most short adults, an orange OPA is suitable for most adults and a red OPA is suitable for most tall adults.
 - **Adults and large children:** the OPA is usually inserted into the patient's mouth upside-down. Once the tip reaches the back of the tongue rotate it through 180 degrees.
 - **Small children and infants:** the OPA is usually inserted the right way up.
 - The flange should sit against the teeth/gums and inside the lips



Airway Management

Nasopharyngeal airway (NPA)

- NPAs are most useful when the patient has airway obstruction with trismus (a clamped jaw).
- Don gloves and safety glasses.
- Measure the NPA from the nostril to the ear lobe, noting this is not crucial.
- Lubricate the NPA and insert it into the largest looking nostril, aiming straight back (toward the back of the head).
- If you encounter resistance rotate the NPA and continue to push, but do not use significant force.
- Try the other nostril if insertion is unsuccessful.
- A small amount of nasal bleeding is common and is of no concern.



Suctioning

- Suctioning the mouth is not a priority and is only indicated when there is a significant amount of vomit in the mouth.
- If the patient is vomiting and is not in cardiac arrest, placing the patient on their side has a higher priority than suctioning.
- If the patient is regurgitating and is in cardiac arrest, suctioning has a higher priority than placing the patient on their side because this allows CPR to continue.
- Do not suction saliva or pulmonary oedema fluid. These fluids do not cause harm and suctioning increases hypoxia because the oxygen mask needs to be removed.
- If there is significant bleeding from the mouth, position the patient on their side and only suction if a significant amount of blood is impairing the airway.

Airway Management

- Principles of suctioning:
 - » Don gloves and safety glasses.
 - » Attempt manual clearance with an OPA or your fingers if a significant amount of solid material is present.
 - » Only suction as far as the back of the tongue.
 - » Suction for a maximum of ten seconds at a time.
 - » Ensure that the suction unit remains upright.
-

Acquiring an ECG

Indications

- Acquiring a 3 lead ECG is never a priority.
- First Responders are not required to routinely acquire a 3 lead ECG but may do so provided an appropriate monitor is available.
- First Responders are not required to acquire a 12 lead ECG but may do so provided the First Responder has been trained and a suitable monitor is available.
- Indications for acquiring a 3 lead ECG include:
 - Cardiac chest pain and non-traumatic chest pain.
 - Collapse or fainting.
 - The pulse rate is fast, slow or irregular.
 - Shock.
 - Post cardiac arrest.

3 lead ECG acquisition

- Turn on the monitor and apply ECG dots to the cables.
- Attach the ECG dots as shown in the image in the 'additional information' part of this guideline.
- Print a six second strip of the ECG if possible.

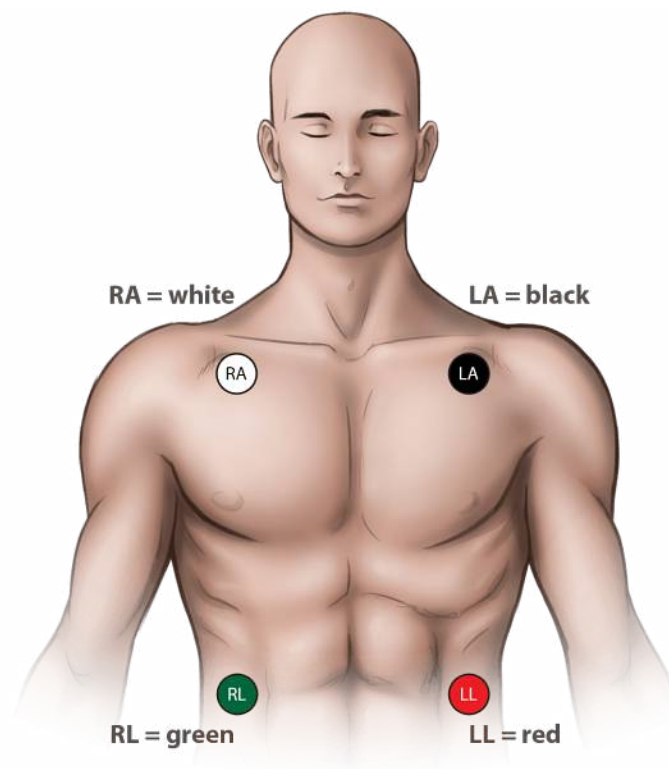
12 lead ECG acquisition

- Turn on the monitor and apply ECG dots to the cables.
- Attach the ECG dots as shown in the image in the 'additional information' part of this guideline.
- Select the 12 lead ECG button on the monitor, select the patient's age and sex, and acquire the ECG. The monitor will automatically print the 12 lead ECG.

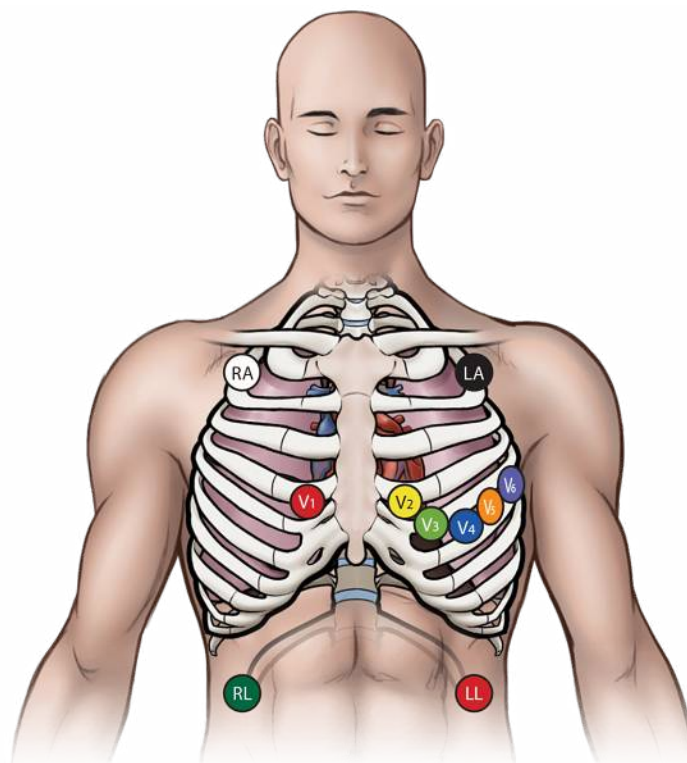
Acquiring an ECG

Additional information

- If there is artefact (electrical interference):
 - Switch off appliances that may cause electrical interference (for example electric blankets).
 - Ensure there is good connectivity between the electrodes and the skin. Sweat or excess hair may need to be removed.
 - Ensure the patient is as still as possible.
 - Ensure there is no tension on the ECG leads.



Acquiring an ECG



Intramuscular IM Injection

- Draw up the medicine to be injected if required.
- The lateral (outside) thigh is the preferred site provided this is feasible. If this site is not feasible use the lateral upper arm.
- Cleaning the injection site is not routinely required. If the skin appears dirty wipe it clean (preferably with an alcohol wipe), but take no longer than a few seconds.
- Hold the syringe in your dominant hand like a dart and insert the needle rapidly into the muscle at a 90 degree angle to the skin. In most patients the needle can be inserted to its full length.
- The depth is not important as long as the needle is in muscle/tissue.
- Inject the medicine as a rapid push.
- Remove the needle and place in a sharps container.

Additional information

- Checking for blood by pulling back on the plunger is no longer required because the risk of inadvertent intravascular injection is extremely low.
- Massaging the injection site is no longer required because this provides no additional benefit.

Dressing Wounds

- Dressing a wound is never a priority unless it is being packed for control of severe bleeding.
 - Control significant bleeding prior to applying a dressing.
 - Examine the wound for visible foreign material:
 - If this is present irrigate the wound before applying a dressing.
 - The best form of irrigation is a running tap or hose if this is available.
 - Alternatively use 0.9% sodium chloride, noting that the volume of irrigation is more important than the nature of the irrigation fluid.
 - If the wound is grossly contaminated it is going to be surgically debrided and/or irrigated under anaesthesia and irrigation at the scene is not a priority.
 - If the wound is significant take a photo (for example, using ePRF if available) before applying a dressing if possible.
 - Dry the skin edges and oppose them as much as possible before applying a dressing appropriate for the size of the wound. The nature of the dressing is not important provided the wound is covered and the dressing is comfortable for the patient.
-

Traction Splint

Indications for application

- Suspected isolated fracture involving the shaft of the femur.

Cautions

- Application is never a priority and should usually wait until personnel with ATP are on scene.
- Time critical injuries. If the patient has time critical injuries a traction splint must not be used and the legs should be tied together.
- Suspected fracture of the pelvis. Application may displace pelvis fractures.
- Suspected fracture of the foot or ankle. Application may displace foot/ankle fractures.

How to apply a traction splint

- Expose and examine the injured limb. Assess limb baselines.
- Provide analgesia as required.
- Provide manual traction to the injured limb and ensure the limb is aligned.
- Position the shaft between the legs.
- Apply the strap around the upper thigh of the injured limb and ensure it is firm.
 - Extend the shaft until the crossbar is adjacent to the heel.
 - Fit the ankle harness and fasten to the crossbar.
- Extend the shaft until the appropriate amount of traction is applied. This could be until the patient has:
 - Significant relief of pain or
 - Traction of approximately 10% of the body weight to a maximum of 7 is applied for a unilateral femur fracture or
 - Traction of approximately 20% of the body weight to a maximum of 14 is applied for bilateral femur fractures.
- Apply the straps over the middle of the thigh, below the knee and above the ankle. It does not matter if a strap is over the site of injury.
- Consider strapping the legs together.
- Reassess limb baselines.

Traction Splint

Arterial Tourniquet

Indications for application

- Severe bleeding from a limb that is uncontrolled despite firm, direct and sustained pressure, or
- Bleeding from a limb that is immediately life-threatening, or
- Severe bleeding from a limb when the bleeding site cannot be reached (for example, the bleeding is from a lower limb and the patient is trapped in a vehicle), or
- Crush injury of a limb that is trapped under a weight for more than 60 minutes, prior to release.

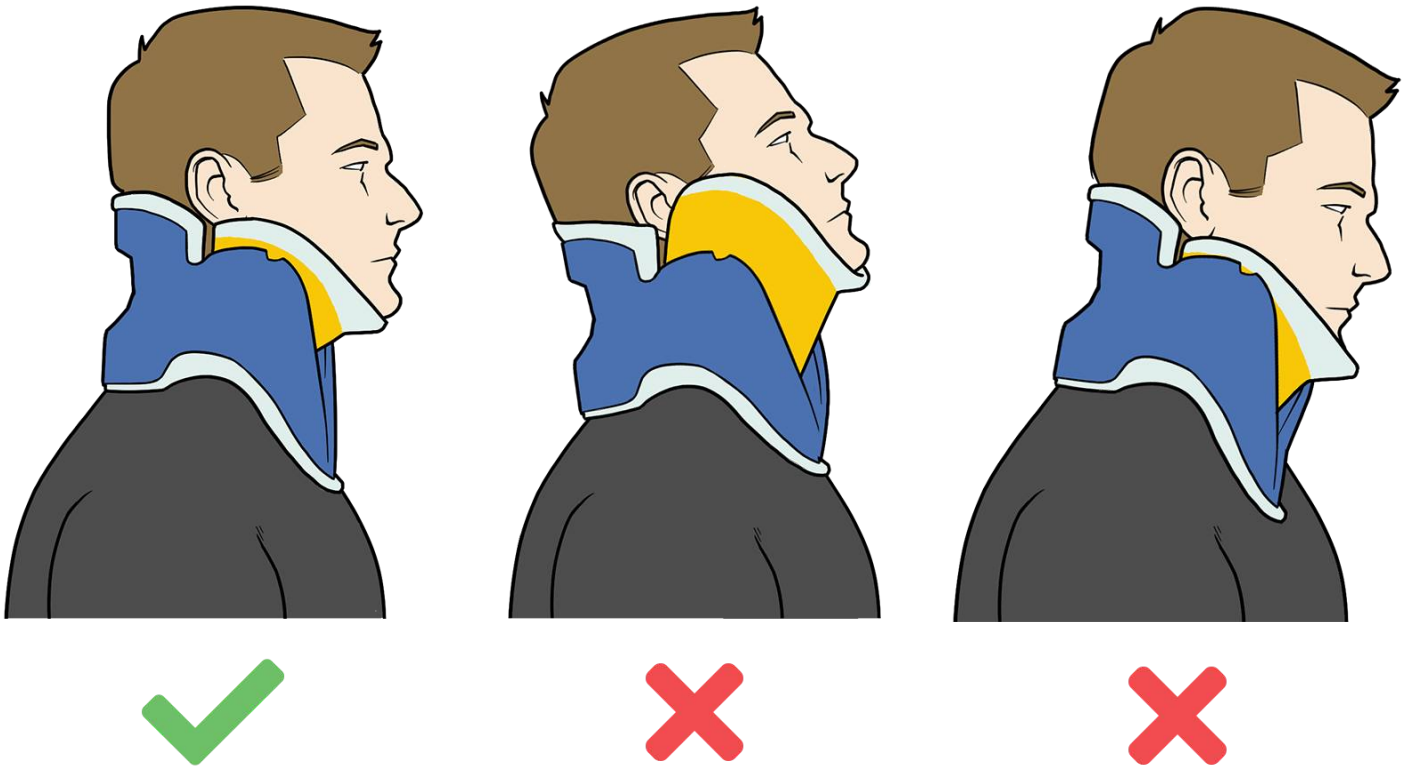
How to apply a tourniquet

- 1 Remove clothing from the limb if possible.
- 2 Apply as distally as possible, usually approximately 5 cm above the wound. Do not apply over a joint.
- 3 Place the tourniquet around the limb. Pull the free end through the buckle until the tourniquet is firm around the limb and then stick the Velcro strap down along its entire length.
- 4 Turn the windlass rod until bleeding is controlled and then lock it in place within the clip.
- 5 Ensure significant bleeding has stopped. Tighten the tourniquet further if required.
- 6 Leave the wound exposed so that it can be observed for bleeding.
- 7 Record the time of application.

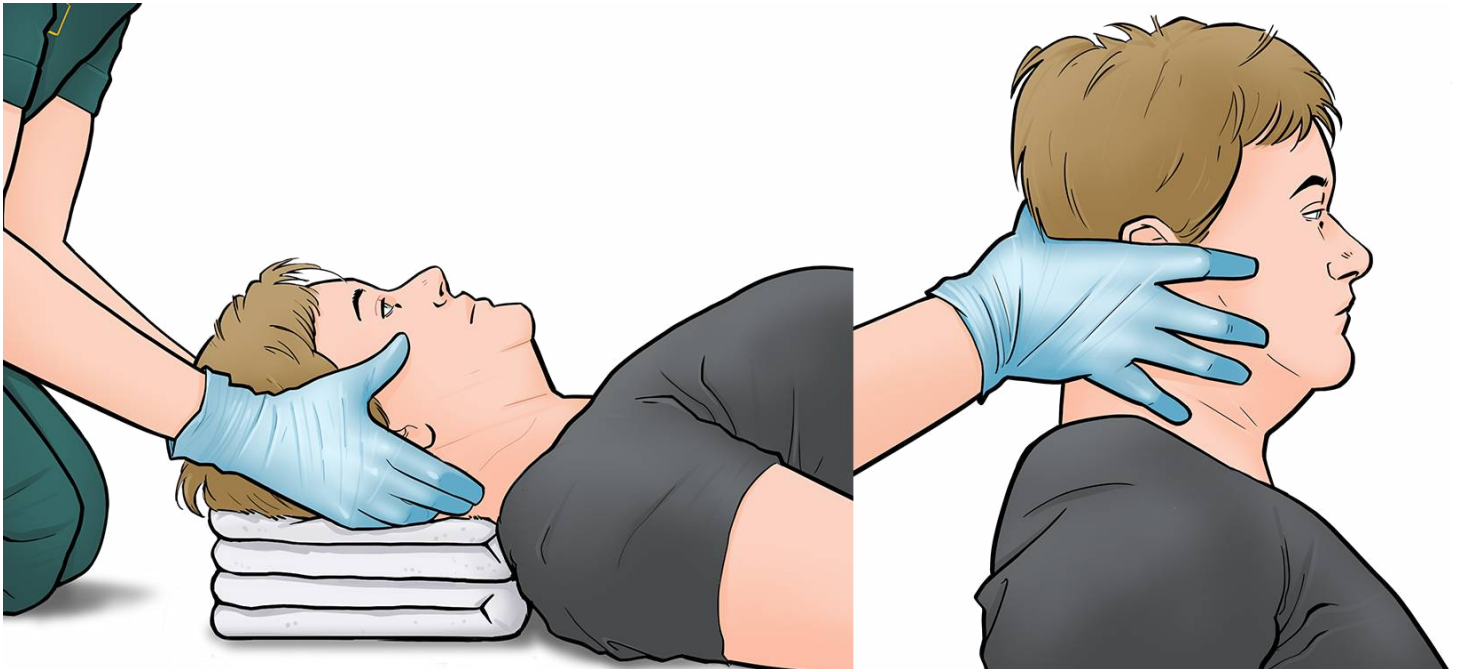
Cervical Collar Application

- Significant abnormalities within the primary survey always take priority over application of a cervical collar.
- Advise the patient not to move their head or neck.
- Remove anything that may impede cervical collar placement.
- Ensure the patient's cervical spine is in neutral alignment. Have an assistant provide manual stabilisation of the head and neck from above the patient, by supporting both sides of the patient's head and face with their hands, if necessary.
- Size the cervical collar:
 - Count the number of fingers from where the trapezius muscle joins the shoulder to the jaw line.
 - Place your fingers on the side of the cervical collar, with your small finger to the bottom edge of the plastic and the correct number of fingers to the closest marker pin.
 - Clip the collar into place at the appropriate marker pin.
- Pre-form the collar by squeezing it into a round shape.
- Fit the collar:
 - Slide the flat end of the collar behind the patient's neck.
 - Position the chin cup of the collar under the patient's chin. Bring the end of the collar around and join the Velcro edges together.
 - Ensure the collar is well positioned and firm, but not tight.
- Ensure the spine is in neutral alignment. This will usually require a folded towel or flat pillow to be placed under the patient's head.
- In some circumstances a cervical collar will be placed while the patient is sitting, for example in a vehicle. Following extrication reassess the fit of the collar.

Cervical Collar Application



Neutral alignment with a firm cervical collar



Manual stabilisation

Assessing Limb Baselines

Indications

- Injury or entrapment of a limb, or
- Prior to splinting or bandaging of a limb, or
- Following splinting or bandaging of a limb.

How to assess limb baselines

- Assess colour. Examine the limb below the site of injury and note the colour of the skin compared to the uninjured limb. Examples of colour include dusky, pale, white, mottled, and cyanosed (blue).
- Assess pulse. Check for a pulse below the injury. Note the pulse rate, regularity and strength. Compare with the other limb.
- Assess capillary refill time. Apply light pressure to the skin below the injury for five seconds to squeeze blood away from the skin surface. Count how many seconds it takes for the pink colour to return.
- Assess warmth. Touch the limb below the injury, noting the temperature in comparison to the other limb.
- Assess movement. Ask the patient to move their limb, particularly below the injury. Compare with the other limb.
- Assess sensation:
 - Touch both limbs and compare sensation in multiple places on the limb.
 - Ask the patient to close their eyes and tell you when/where they feel you touching them on their limb.

Additional information

- Limb baselines are a series of basic assessments that evaluate blood flow to the extremity of a limb.
- Limb baselines are important because:
 - They can indicate whether blood flow to a limb is being compromised.
 - Poor limb baselines before splinting may indicate an angulated limb needs to be urgently straightened.
 - Deteriorating limb baselines after splinting or bandaging can indicate the splint or bandage is too tight and restricting blood flow.

Warming Blanket

Indications

- Temperature less than 35°C
- Severe bleeding from trauma.
- Non-traumatic bleeding and severe shock (status one).
- Premature newborn.
- All newborns requiring any form of resuscitation.

Using the warming blanket

- 1 Remove the blanket from the packaging, exposing it to air. Do not open the blanket pockets or inside the pouch.
- 2 The blanket will immediately begin to heat, but personnel should allow 10-15 minutes for it to reach it's maximum operating temperature.
- 3 Place an ordinary blanket over the patient, then lay the warming blanket over the top to ensure it does not contact exposed skin.
- 4 If the blanket heat decreases, re-expose it to air.
- 5 If the patient reports feeling 'too hot' or is uncomfortable because of the heat, remove the blanket immediately.

Additional information

- Monitor the patient regularly, particularly when using the blanket for newborns, infants, children, the elderly, and those with sensitive skin or who cannot regulate or sense heat.
- Do not open any sealed pouches or pockets on the warming blanket as the contents (including iron powder) within can be harmful if ingested. If contact with iron powder occurs, wash contaminated areas using clean water.
- Do not fold the blanket or place any objects on top of the blanket as any folding or pressure applied to the blanket may increase the heat.

Aspirin

Indications

- ✓ Adults with cardiac chest pain.

Contraindications

- ✗ Child.
- ✗ Pregnant.
- ✗ Has already taken aspirin following instructions from the 111 Call Handler.

Dosage

- 300 mg (1 tablet).

Administration

- Administer PO. Dispersible tablets may be chewed or dissolved in water.

Usual preparation

- 300 mg dispersible tablets.

Glucose Gel

Indications

- ✓ Blood glucose level less than 3.5 mmol/L, provided the patient is conscious enough to swallow safely.

Contraindications

- ✗ None.

Dosage

- 10-20 grams (1-2 sachets of glucose gel).

Administration

- Administer PO.
- Glucose gel may be spread on the gums, tongue and inside of the cheeks of a baby or small child.

Usual preparation

- Sachet containing 10-20 grams of glucose.

Ibuprofen

Indications

- ✓ Mild to moderate pain and:
 - » Pain appears to be secondary to a minor problem such as minor injury or headache, or
 - » The patient will be transported by ambulance, and an ambulance is going to be delayed in locating at the scene.

Contraindications

- ✗ Allergic to ibuprofen.
- ✗ Not alert.
- ✗ Pregnant.
- ✗ Appear to be very unwell or are severely injured.
- ✗ Are known to develop breathing problems when taking ibuprofen or other anti-inflammatories.
- ✗ Have taken ibuprofen in the last four hours.
- ✗ Have abdominal pain.
- ✗ Are aged greater than or equal to 75 years.

Dosage

- 400 mg (two tablets or 20 ml of 20 mg/ml syrup) for patients aged 14 years and over.
- 300 mg (one and a half tablets or 15 ml of 20 mg/ml syrup) for children aged 11-13 years.
- 200 mg (one tablet or 10 ml of 20 mg/ml syrup) for children aged 6-10 years.
- Do not administer ibuprofen to children aged less than 6 years without seeking clinical advice.

Administration

- Administer PO.
- Children unable to swallow tablets may be administered ibuprofen syrup, or tablets that have been crushed and placed in a soft food such as jam or honey.

Ibuprofen

Usual preparation

- 200 mg tablets.
 - Syrup containing 20 mg/ml.
-

Loratadine

Indications

- ✓ Minor allergic reactions (including bites and stings) that are confined to skin involvement with prominent itch.

Contraindications

- ✗ Allergic to loratadine.
- ✗ Not alert.
- ✗ Pregnant.

Dosage

- 10 mg (one tablet) for patients aged greater than 5 years.
- Do not administer loratadine to children aged less than 12 years without seeking clinical advice.

Administration

- Administer PO.
- Children unable to swallow tablets may be administered tablets that have been crushed and placed in a soft food such as jam or honey.

Usual preparation

- 10 mg tablet.

Paracetamol

Indications

- ✓ Mild to moderate pain and:
 - » Pain appears to be secondary to a minor problem such as minor injury or headache, or
 - » The patient will be transported by ambulance, and an ambulance is going to be delayed in locating at the scene.

Contraindications

- ✗ Allergic to paracetamol.
- ✗ Have taken paracetamol in the last four hours.
- ✗ Are not alert.
- ✗ Have abdominal pain.
- ✗ Have known severe liver disease.

Dosage

- 1 g (two tablets or 20 ml of 50 mg/ml syrup) for patients aged greater than or equal to 14 years.
- 500 mg (one tablet or 10 ml of 50 mg/ml syrup) for patients aged 11-13 years.
- 250 mg (half a tablet or 5 ml of 50 mg/ml syrup) for patients aged 6-10 years.
- Do not administer paracetamol to patients aged less than 6 years without seeking clinical advice.

Administration

- Administer PO.
- Children unable to swallow tablets may be administered paracetamol syrup, or tablets that have been crushed and placed in a soft food such as jam or honey.

Usual preparation

- 500 mg tablets.
- Syrup containing 50 mg/ml.

Paracetamol

Uncontrolled document exported 16.06.2026
View online at cpg.stjohn.org.nz

© St John New Zealand, 2022

Except as provided by the Copyright Act 1994, no part of this publication may be reproduced or stored in a retrieval system in any form or by any means without the prior written permission of the copyright owner.



Hato Hone
St John