Primary Survey

Aim
To safely and effectively conduct a paramedic primary survey

Indications
When approaching and managing every single patient, regardless of their presentation.

Background
The primary survey is a key process in paramedic practice. It is a very short and rapid process which is used to determine the level of urgency required for patient treatment. It is used to quickly and systematically identify how critical a patient’s condition is. It is necessary to perform a primary survey on every patient before any other assessments or interventions. Each step in the primary survey must be successfully passed in order to progress to the next step. In some cases, you may never progress beyond a certain step. In most circumstances a primary survey will take a few seconds to complete and can be done whilst concurrently building a rapport with the patient.

After the primary survey has been initially conducted and you have moved on to secondary assessments, it is essential to re-assess the ‘ABCs’ (primary survey), periodically throughout a case and every time that you undertake an intervention of some kind. In some circumstances the DRABC approach may be altered to DRCABC. This will occur if you attend a patient with significant external haemorrhage. If the patient is bleeding profusely, it will not only lead to quick and significant deterioration of the patient, but it will be a danger to you. Consequently, after you have assessed for other dangers, address haemorrhage control somewhere between ‘Danger’ and ‘Response’. If the patient is conscious and you feel safe to begin treating them, then you may begin haemorrhage control concurrently with ‘Response’ assessment. However, if the patient appears unconscious, you must properly assess their responsiveness before beginning any other assessments or treatments, including haemorrhage control.
## Objective

### Danger

Safety for yourself, your partner and others on scene is always the first priority. Before approaching any patient, you should always assess the scene for danger and potential dangers. You should only enter a scene if it is safe to do so.

You should always reassess danger whilst managing a patient.

As you identify danger at various times throughout the case, have a plan of action. Plans can include (but are not limited to) not entering the scene, and exit strategies – i.e. leaving doors open as you move deeper in to a house, body position to aid self-defence, gaining assistance from other emergency services.

### Response

A quick assessment of the patient’s level of consciousness is essential to determine the level of urgency of care required and helps with subsequent assessment and treatment plans. If the patient is alert, it generally means that you have time to build a rapport with them as you continue other assessment techniques.

If the patient is unconscious, you need to think about the need for backup resources and immediately begin life-saving interventions.

The AVPU scale will easily identify the patient’s level of consciousness. *AVPU scale is described on next page.*

## Rationale

1. Consider any information provided to you when dispatched to assist in your risk assessment, even prior to arrival at the scene.

2. Before exiting the ambulance, properly view the outside environment. Look for and consider dangers. Things to look for include (but are not limited to) – suspicious looking people, animals, surroundings, difficult exits etc.

3. Before entering the scene properly view the environment. Look for and consider dangers.

4. Always be mindful of changing situations and continually reassess for danger. Things to look for include (but are not limited to) – weapons or things that could be used as weapons, unsheathed needles, drug using paraphernalia, blood or other bodily fluids etc.

## Action

1. Use the AVPU scale to determine the patient’s level of consciousness.

   **1a** – As you walk in to the scene, look at the patient. If they acknowledge you by looking over to you and/or watching your movements and/or speaking to you – they are considered to be **ALERT**. If they do not do any of these things, continue on to the next step (**1b**).

   **1b** – Speak to the patient in a loud and clear voice, as you are walking over to them, but before you get within arms distance of them. Say something like ‘Hello, my name is Anthea and I am a paramedic with the ambulance...’
Is the patient **Alert**?
If the patient is interacting with the environment appropriately, you can begin to build a rapport with them by offering a greeting and introducing yourself.

Is the patient responding to **Verbal stimuli**?
Be sure to verbally communicate with the patient as you walk over to them. They may be sleeping or hard of hearing, and you may startle them if you start yelling at them only after you are right in front of them. You may need to speak louder and more direct if the patient does not respond to you initially.

Is the patient responding only to **Painful stimuli**?
If the patient does not respond to your voice commands, you may need to apply painful stimuli. This can include squeezing them firmly on the shoulder or earlobe, pressing in-between the angle of their jaw and earlobe or pressing firmly on their nail beds.

Is the patient **Unconscious**?
If the patient is not alert, does not respond to your voice or to painful stimuli, then they are considered unconscious.

After you determine if the patient is alert, responds to voice, responds to pain or is unconscious, then you can continue on to airway assessment.

### Airway

An obstructed airway will quickly result in hypoxia and subsequent respiratory arrest. Partial airway obstructions have the potential to become complete obstructions and should be considered just as serious. Partial airway obstructions can be recognised by identifying stridor.

Airway examination will depend on the patient’s level of consciousness.

If the patient is **conscious**;
1. Look at the patient’s mouth and neck. Ensure there is no swelling, deformity, vomit or burns.
2. Listen to the sounds coming from the patient’s mouth to identify stridor.
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<td>Early recognition of an airway obstruction or partial obstruction is the number one priority in all patient management, and clearing to ensure a patent airway is an essential first step.</td>
<td>3. Assess if the patient is coughing or choking. If any of the above are identified, ensure the airway is cleared immediately. If you cannot identify any of the above, then the patient has a clear airway.</td>
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<td>Clearing of the airway can involve getting the patient to cough or spit if they are conscious. If the patient is unconscious, airway clearing may involve suction or removal under laryngoscopy with magill forceps. Early management of airway burns is essential to ensure maintenance of airway patency. After you have ensured the patient has a patent airway, (remember that this may require you to clear the airway), then you can continue on to breathing assessment.</td>
<td>If the patient is unconscious; 1. Look at the patient’s mouth and neck. Ensure there is no swelling, deformity, vomit or burns. 2. From behind the patient’s head bend down and use a manual airway manoeuvre to thoroughly look in to the patient’s mouth and upper airway. If you suspect the patient may have a c-spine injury, use a jaw thrust and not a head-tilt chin-lift. When you reassess the patient’s ABC’s then you should apply a c-collar at this point. If any of the above are identified, ensure the airway is cleared immediately. If you cannot identify any of the above, then the patient has a clear airway.</td>
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<td>In the breathing assessment, the first step is to determine if the patient is breathing or not. If the patient is unconscious and not breathing, then immediately begin resuscitation and follow the Advanced Life Support (ALS) algorithm to manage the patient. However, if the patient is breathing, it is important to take note on a few other observations to decide if the patient has the potential to quickly deteriorate. The respiratory rate and effort are two of the key signs and symptoms of a patient who is not compensating.</td>
<td>Breathing assessment will depend on the patient’s level of consciousness. If the patient is conscious; 1. Look for the rise and fall of the patient’s chest. 2. Observe the effort that the patient makes to breathe. Look for deep rhythmic breathing that does not interfere with the patient speaking or moving. If the patient is short of breath, they may take short shallow respirations or gasp for air. If this is the case, listen for how many words they can speak in between breaths. This will help to identify how short-of-breath they are.</td>
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<td>and may be more critical than initially thought.</td>
<td>3. Count the <strong>respiratory rate</strong> of the patient. You can easily do this by watching for the rise and fall of their chest for 15sec and multiply the number by 4, to obtain a measure of how many respirations they make per minute. A normal respiratory rate for an adult is between 12-20 respirations per minute.</td>
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<td>If the patient is struggling to breathe and talk and has a very high or low respiratory rate then you will need to intervene and treat them before moving on to the next step.</td>
<td>If the patient is <strong>unconscious</strong>; 1. From behind the patient’s head, bend down and perform a manual airway manoeuvre. From this position, <strong>look</strong> for rise and fall of their chest, <strong>listen</strong> for signs of breath sounds with your ear close to their mouth and <strong>feel</strong> for exhalation on your cheek.</td>
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<td>Circulation</td>
<td>When you are satisfied that the patient is breathing adequately and is not likely to rapidly deteriorate, then you can continue on to circulation assessment. Remember that you may need to intervene with posture, oxygen, assisted ventilation and/or medications etc. before moving to the next step.</td>
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<td>In the primary survey, the circulation assessment is a quick evaluation of the patient’s skin and radial pulse. More detailed investigation of the circulatory system occurs during secondary assessments.</td>
<td>1. <strong>Look</strong> at their skin. Assess if they appear normal in colour, pale, cyanosed and/or flushed.</td>
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<td>The circulation assessment can mostly be completed concurrently. It is the final step in the primary survey and leads into secondary assessments and secondary survey.</td>
<td>2. <strong>Feel</strong> their skin. If the patient is conscious, hold out your hand to shake the patient’s hand as you introduce yourself and/or ask them if you can hold their wrist to measure their pulse.</td>
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<td>A patient should be normal in colour, their skin should feel warm and dry to touch and their radial pulse should be strong, and regular in rhythm.</td>
<td><strong>2a</strong> – Assess if their skin feels warm, cool, cold, dry and/or clammy.</td>
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<td><strong>2b</strong> – Assess their radial pulse. Is it present or absent, strong or weak, regular or irregular? If you cannot palpate a radial pulse on one wrist, try the other. If you cannot palpate a radial pulse on either wrist, attempt to palpate the brachial pulse. If you cannot palpate a brachial pulse, attempt to palpate the femoral or carotid pulse.</td>
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