

# Assessment and resuscitation of the acutely ill adult patient

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# NMC STANDARDS OF PROFICIENCY FOR NURSING ASSOCIATES

This chapter will address the following platforms and proficiencies:

#### Platform 1: Being an accountable professional

- 1.13 demonstrate numeracy, literacy, digital and technological skills required to meet the needs of people in their care to ensure safe and effective practice
- 1.14 demonstrate the ability to keep complete, clear, accurate and timely records

#### Platform 3: Provide and monitor care

- 3.6 demonstrate the knowledge, skills and ability to perform a range of nursing procedures and manage devices, to meet people's need for safe, effective and person-centred care
- 3.7 demonstrate and apply an understanding of how and when to escalate to the appropriate professional for expert help and advice
- 3.11 demonstrate the ability to recognise when a person's condition had improved or deteriorated by undertaking health monitoring. Interpret, promptly respond, share findings, and escalate as needed
- 3.14 understand and act in line with any end of life decisions and orders, organ and tissue donations protocols, infection protocols, advanced planning decisions, living wills and lasting power of attorney for health

#### Platform 4: Working in teams

4.1 demonstrate awareness of the roles, responsibilities and scope of practice of different members of the nursing and interdisciplinary team, and their own role within it







#### Chapter aims

By the end of this chapter you should be able to:

- discuss the importance of assessment in managing the acutely ill adult patient;
- briefly explain the chain of prevention;
- understand how to undertake an ABCDE assessment;
- identify how to recognise a deteriorating patient using a recognised track and trigger tool, and communication of care;
- outline the guidelines for adult basic life support, and the chain of survival;
- explain the process of ReSPECT when resuscitation is not appropriate.

#### Introduction

The Resuscitation Council UK (RCUK) (2021a) identified that the average age of patients sustaining an in-hospital cardiac arrest is 70 years, but a quarter (26.7 per cent) are aged 16-64 years; 85 per cent of cardiac arrests happen on wards, in patients admitted for medical reasons (RCUK, 2021a). The annual incidence of in hospital cardiac arrest is 1 to 1.5 per 1000, whereas the incidence of out of hospital cardiac arrest is approximately 55 per 100,000 (RCUK, 2021a). The National Institute of Clinical Excellence (NICE) (2007, page 18) stated that 'patients who are, or become acutely unwell in hospital may receive sub-optimal care. This may be because, their deterioration is not recognised, or because despite indications of clinical deterioration - it is not appreciated, or not acted upon sufficiently rapidly'. The use of track and trigger systems, staff training, and the introduction of a critical care outreach team have been introduced to negate the incidence of patients deteriorating. Tait et al. (2016) identified that assessment and recognition of a deteriorating patient are essential skills for healthcare workers. This chapter will discuss the importance of assessment in managing the acutely ill patient. Identifying how to recognise a deteriorating patient and the role of the ABCDE assessment and track and trigger systems will be addressed. An overview of basic adult resuscitation guidelines will be looked at, and the basics of utilising ReSPECT when resuscitation is not appropriate will be reviewed.

#### Student tip: Amy

I learnt about the ABCDE assessment while at university, but at the time I did not appreciate its significance when caring for a deteriorating patient. That was until I had a placement in A&E. I was working with my practice assessor (PA) and a patient we were caring for suddenly became unwell. My PA utilised the ABCDE framework to assess and manage the patient's deterioration and used the findings from the ABCDE framework to communicate the escalation of care. I learnt that the ABCDE assessment is a quick, easy to use systematic and evidence-based approach to assessing and responding to the needs of a deteriorating patient.







#### Chain of prevention

Smith (2010) conceptualised the strategies that support the recognition of, and response to deteriorating patients, which is referred to as the chain of prevention – see Figure 2.1 (Smith, 2010). This five-step approach is used widely across the NHS, and the first stage is education. This chapter provides educative guidance for you as a NA student and you will be provided with further education and training when completing mandatory basic life support training (BLS). This chapter will be following the chain of prevention, by discussing monitoring (vital signs), recognition (ABCDE assessment), call for help (track and trigger). Response will be referenced in each chapter within this book through its application to each chapter's case study.

Let's start by looking at the importance of patient assessment, and monitoring of the six physiological parameters (vital signs).

#### Chain of prevention



Figure 2.1 Chain of prevention (Smith, 2010)

#### Patient assessment

The nursing process contains five steps: assessment, diagnosis, planning, implementation and evaluation (ADPIE), in that order (Dougherty and Lister, 2015). The fundamental first step of the nursing process is assessment; without completing a comprehensive assessment, you will not be able to identify and accurately treat an acutely ill patient. Failure to accurately assess acutely ill patients can contribute to sub-optimal care. Sub-optimal care happens when healthcare practitioners fail to accurately assess and understand the significance of clinical findings in relation to the deteriorating patient (Massey, Aitken and Chaboyer, 2008). When a patient becomes acutely ill, this often follows a period of deterioration. In most cases, patients will exhibit obvious deterioration in one or more physiological parameters (vital signs), before the onset of acute illness. Ensuring you consistently complete a comprehensive and accurate patient assessment will help you in identifying patients at risk of deteriorating. There are of course cases where patients collapse spontaneously without any warning, and this is likely related to an acute cardiac or neurological event, such as a myocardial infarct, or stroke. Care of the acutely ill cardiac patient is discussed in Chapter 3, and care of the acutely ill neurological patient is discussed in Chapter 4.

Before moving on to discuss how to recognise a deteriorating patient, **Activity 2.1** asks you to take note of the six physiological signs and what accounts as normal parameters. It is important for you to understand what the six physiological signs (vital signs) and normal parameters are, so that you can appropriately respond and escalate patient care.







#### Activity 2.1 Critical thinking

Read the following case study, and answer these two questions:

- Identify the six physiological parameters (vital signs) which are commonly recorded in clinical practice
- 2. Identify the normal parameter for each physiological sign

An outline answer is provided at the end of this chapter.

#### Case study: Kamal

Kamal is a 59-year-old man, who is works manager of a large consulting firm. He smokes 10–15 cigarettes a day, is overweight and has a history of hypertension, angina and type 2 diabetes. Kamal has been complaining of chest pain radiating down his left arm, and this has become increasingly worse over the last few hours. Kamal's wife calls an ambulance and on arrival the paramedic takes Kamal's vital signs as follows: saturations 92 per cent, respiratory rate 28 breaths per minute (bpm), blood pressure 170/100 millimeters of mercury (mmHg), heart rate 100 beats per minute (bpm), temperature 36.0°C, and Kamal's level of consciousness is alert and orientated.

#### Recognising the deteriorating patient

Completing Activity 2.1 will ensure that as an NA you can accurately record vital signs, and recognise where vital signs fall outside their normal parameters. Dutton and Finch (2018) highlighted that failure to recognise physiological changes in patients can lead to a delay in the escalation of care, ICU admission and increased hospital stay. Failure to recognise abnormal vital sign parameters are what Loftus and Smith (2018) say can lead to avoidable patient deterioration, and death. An example of this would be a patient dying from an illness that, if picked up early, could have been treated and death avoided. The Office for National Statistics (2022) highlighted that, in 2020, '22.8% of total deaths (all ages) were considered avoidable, that equates to 153,008 deaths out of 672,015'. Although a portion of this number was linked to COVID-19, alcohol- and drug-related disorders, and cancer, the total number does highlight the harsh reality that more work into recognising and responding to the clinical deterioration of patients needs to be addressed. The first approach, as mentioned previously in the nursing process, is assessment, and it is within the assessment that you would undertake the recording and monitoring of vital signs. The RCUK (2021b) has advocated the use of the ABCDE assessment for assessing acutely ill patients. The acronym ABCDE stands for airway, breathing, circulation, disability and exposure (see Figure 2.2). The next section will look at the ABCDE assessment in detail.







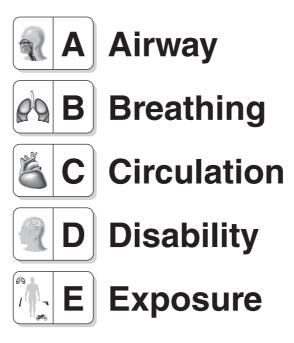


Figure 2.2 ABCDE assessment. Basic emergency care: approach to the acutely ill and injured (Geneva: World Health Organization and the International Committee of the Red Cross 2018. Licence: CC BY-NC-SA 3.0 IGO)

### Principles of the ABCDE assessment framework

Smith and Bowden (2017) identified that the ABCDE assessment is a holistic and systematic approach to assessing the deteriorating patient. The overall aim of the ABCDE assessment is to 'identify and stabilise the patient's most life-threatening problems first and instigate further treatment' (Peate and Brent, 2021, page 84). The RCUK (2021b) explained that the approach to all deteriorating patients is the same, and that the underlying principles are:

- use the ABCDE approach to assess the patient;
- complete an initial ABCDE assessment, and then reassess regularly;
- treat life threatening problems first, before moving on to the next part of the ABCDE
  assessment. For example, if there is a life-threatening problem in part B, treat this before
  moving on to C;
- know when to call for help, and ensure you call for appropriate help;
- evaluate the effects of treatments;
- utilise all members of the team to ensure simultaneous management of the patient;
- communicate using a recognised and validated communication tool; for example, use situation, background, assessment, recommendation (SBAR). SBAR will be discussed later in this chapter;
- aim, following the initial ABCDE assessment, to stabilise the patient, to allow time for further treatment and diagnosis;







 as it may take a few minutes for treatment to work, allow time before reassessing to evaluate care.

(RCUK, 2021b)

Utilising the above principles provides a holistic approach to caring for an acutely ill patient. The first stage in the above principle is to complete an ABCDE assessment.

Now let's look at how to undertake an ABCDE assessment as outlined by the RCUK (2021b). Please note: throughout this book you will see variations of the ABCDE assessment being used; however, the underlying principles remain the same. As a student NA or qualified NA you must remember to only work within the remit of your role. You must always seek guidance from your PA and/or manager when caring for an acutely ill patient, or if you suspect a patient may be at risk of deteriorating.

ABCDE assessment (adapted from the RCUK, 2021b)

#### First steps

- ensure safety and adhere to local infection control guidelines;
- ask the patient 'how are you'?
- complete an initial rapid assessment (look, listen and feel approach), this is often
  referred to as a general and preliminary assessment to address an urgent lifethreatening problem;
- seek urgent help if needed;
- if the patient is unconscious, unresponsive and not breathing, call for help and start CPR (if trained) and as per the RCUK (2021) guidelines.

#### Airway

- look for signs of airway obstruction, paradoxical chest and abdominal chest movement (see-saw respirations), and/or use of accessory muscles;
- central cyanosis (blue colour on tongue or lips is seen as a late sign of airway obstruction);
- partial airway obstruction: air entry is often diminished, and can be noisy;
- complete airway obstruction: there will be no breath sounds;
- airway obstruction is a medical emergency and you need to seek immediate help.

#### Breathing

- look, listen and feel for signs of respiratory distress;
- respiratory distress: sweating, central cyanosis, use of accessory muscles or abdominal breathing:
- measure respiratory rate and oxygen saturation level (per cent);
- assess the depth and pattern of each breath and look for bilateral and equal chest expansion;
- listen to the patient's breath sounds away from the face: chest sounds could include rattling (presence of secretions), stridor or wheeze;
- auscultate the chest only if trained to do so. As a student NA you will not be training to
  do this:
- look for signs of tracheal deviation. A deviated trachea could indicate a pneumothorax (collapsed lung);
- feel the chest for surgical emphysema (air in the subcutaneous tissue).

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#### Circulation

- look at the colour and temperature of hands and fingers. Blue, pale or mottled could be indicative of a reduction in blood pressure;
- measure capillary refill time (CRT). A normal CRT is <2 seconds, a prolonged CRT could indicate poor peripheral perfusion;
- assess the patient's veins, are they flat and hard to find, or are they visible and full;
- measure pulse rate (HR) and palpate pulses and assess the presences, rate and quality and whether they are regular and equal;
- measure blood pressure;
- auscultate the heart only if trained to do so. As a student NA you will not be training to do this;
- look for external haemorrhages (wound, drains). The doctor will look for internal signs of haemorrhages by using bedside fast scan or requesting a CT;
- ensure patient has access (one or more large bore cannula 14 or 16 gauge);
- take bloods for microbiological investigations and cross match (FBC, U&Es, Creatinine are amongst the most common);
- arterial blood gas (PaO2, PaCO2, Lactate and PH);
- record a 12 lead ECG;
- record urine output (variations of the ABCDE may put this under E);
- record temperature (variations of the ABCDE may put this under E).

#### Disability

- rapidly assess the patient's conscious level, using either ACVPU (Alert, Confusion, responds to verbal stimuli, responds to pain stimuli, or unresponsive) or the GCS (Glasgow Coma Scale). The GCS is discussed in depth in Chapter 4. ACVPU was formally know as AVPU, but C for confusion has been added to link with the NEWS2 discussed later in this chapter;
- examine pupil size this is separate to ACVPU/GCS. When examining pupil size, you
  need to look at the size, equality and reaction to light;
- measure blood glucose this is vitally important when assessing conscious level;
- review any medication the patient may be taking.

#### Exposure

 assess the patient's skin top to toe and front to back – this will require full body exposure, remember to respect the patient's dignity and potential heat loss.

#### Additional information

- normally completed after the initial ABCDE assessment, and management of ill-threatening problems;
- take a full patient's history, speak to family and get access to medical notes, use SAMPLE (signs and symptoms, allergies, medications, past medical history, last oral intake and events) to gather information (see Figure 2.3);
- review laboratory results and vital signs.







| S | Signs and symptoms:   | Speak with family/friends/other staff       |  |  |
|---|-----------------------|---|--|--|
| A | Allergies:            | May be anaphylaxis                          |  |  |
| М | Medications:          | Full list of current medication (dose/time) |  |  |
| P | Past medical history: | Obtain notes/GP/Family                      |  |  |
| L | Last oral intake:     | Solid and/or liquid                         |  |  |
| E | Events:               | Time, onset and severity of illness         |  |  |

Figure 2.3 SAMPLE (adapted from Peate and Brent, 2021)

Activity 2.2 will now ask you to use the above ABCDE information, and complete a full ABCDE assessment on the case study from Activity 2.1. This is an important exercise, and will support your understanding of how to carry out an ABCDE assessment and apply this to a clinical scenario.

#### Activity 2.2 Reflection

Using the ABCDE approach outlined above, complete a full ABCDE assessment on Kamal. The case study from Activity 2.1. Start with A (airway) and move through the assessment using the systematic approach outlined above and use the observations outlined in Kamal's case study.

An outline answer is provided at the end of this chapter.

#### Track and trigger

After completing an ABCDE assessment it is vitally important to then know what to do with the information collected and how to escalate care appropriately. In an attempt to improve the recognition and timely escalation of patient care, track and trigger systems were introduced in the UK in 2012. Loftus and Smith (2018, page 77) explained that the track refers to 'detecting an event' and the trigger refers to 'initiating a response'. In other words, track is how you recognise a patient is deteriorating, and trigger is where you escalate care to the appropriate professionals. The National Early Warning Score (NEWS) was introduced as the track and trigger tool in the UK in 2012, and in 2017 this was updated to the NEWS2 by the Royal College of Physicians (RCP) (see Figure 2.4 NEWS2). The NEWS2 has 'received formal endorsement from NHS England, and NHS Improvement to become the early warning system for identifying acutely ill patients' (RCP, 2017).

| Physiological parameter       |     | Score |       |            |          |          |        |  |
|-------------------------------|-----|-------|-------|------------|----------|----------|--------|--|
|                               | 3   | 2     | 1     | 0          | 1        | 2        | 3      |  |
| Respiration rate (per minute) | ≤8  |       | 9–11  | 12–20      |          | 21–24    | ≥25    |  |
| SpO <sub>2</sub> Scale 1(%)   | ≤91 | 92-93 | 94–95 | ≥96        |          |          |        |  |
| SpO <sub>2</sub> Scale 2(%)   | ≤83 | 84–85 | 86–87 | 88-92      | 93–94 on | 95–96 on | ≥97 on |  |
|                               |     |       |       | ≥93 on air | oxygen   | oxygen   | oxygen |  |







Assessment and resuscitation of the acutely ill adult patient

| Physiological                  | Score |        |           |           |           |         |      |
|--------------------------------|-------|--------|-----------|-----------|-----------|---------|------|
| parameter                      | 3     | 2      | 1         | 0         | 1         | 2       | 3    |
| Air or oxygen?                 |       | Oxygen |           | Air       |           |         |      |
| Systolic blood pressure (mmHg) | ≤90   | 91–100 | 101–110   | 111–219   |           |         | ≥220 |
| Pulse (per minute)             | ≤40   |        | 41–50     | 51–90     | 91–110    | 111-130 | ≥131 |
| Consciousness                  |       |        |           | Alert     |           |         | CVPU |
| Temperature (°C)               | ≤35.0 |        | 35.1–36.0 | 36.1–38.0 | 38.1–39.0 | ≥39.1   |      |

Figure 2.4 NEWS2 (RCP, 2017, © Royal College of Physicians, 2018)

The NEWS2 allocates a score to each physiological sign and it is the adding of these scores that leads to triggering an escalation of care (see Figure 2.5 NEWS2 Thresholds and trigger, RCP, 2017).

| NEW score  | Clinical risk | Response                           |
|--|---------------|------------------------------------|
| Aggregate score 0–4                                    | Low           | Ward-based response                |
| Red score<br>Score of 3 in any individual<br>parameter | Low-medium    | Urgent ward-based response*        |
| Aggregate score 5–6                                    | Medium        | Key threshold for urgent response* |
| Aggregate score 7 or more                              | High          | Urgent or emergency response**     |

<sup>\*</sup>Response by a clinician or team with competence in the assessment and treatment of acutely ill patients and in recognising when the escalation of care to a critical care team is appropriate.

Figure 2.5 NEWS2 Thresholds and triggers (RCP, 2017, © Royal College of Physicians, 2017)

#### Activity 2.3 Critical thinking

Applying the information above, now complete Activity 2.3.

Using the case study from Activity 2.1, calculate Kamal's NEWS2 score, and identify what the trigger of care would be.

An outline answer is provided at the end of the chapter.

#### Communication of care

Once you have identified a patient at risk, you must now ensure you communicate the needs of that patient, promptly and effectively. NHS (2021c, page 1) defined 'communication as a two-way process of reaching mutual understanding, in which participants not only exchange information





<sup>\*\*</sup>The response team must also include staff with critical care skills, including airway management.



but also create and share meaning'. SBAR (situation, background, assessment, recommendation) (see Figure 2.6), was originally developed and used for military communication in the United States, but has since been adopted and utilised as a successful communication tool across healthcare settings. NHS (2021c) suggests that SBAR provides a structured, easy to use approach to communication that facilitates the accurate sharing of information. SBAR has been recognised as a tool that can reduce barriers to communication such as the various levels and knowledge of staff; for instance, as a NA student, using SBAR will support you to effectively communicate with a doctor, or senior member of the nursing team. Activity 2.4 will now give you an opportunity to put the use of SBAR into practice.

# S

#### Situation:

I am (name), (X) nurse on ward (X)
I am calling about (patient X)
I am calling because I am concerned that...
(e.g. BP is low/high, pulse is XX, temperature is XX, Early Warning Score is XX)



#### Background:

Patient (X) was admitted on (XX date) with... (e.g. MI/chest infection)
They have had (X operation/procedure/investigation)
Patient (X)'s condition has changed in the last (XX mins)
Their last set of obs were (XX)
Patient (X)'s normal condition is...
(e.g. alert/drowsy/confused, pain free)



#### Assessment:

I think the problem is (XXX) And I have ... (e.g. given O<sub>2</sub>/analgesia, stopped the infusion) OR I am not sure what the problem is but patient (X) is

I am not sure what the problem is but patient (X) is deteriorating OR

Un

I don't know what's wrong but I am really worried



#### Recommendation:

I need you to ... Come to see the patient in the next (XX mins) AND

Is there anything I need to do in the meantime? (e.g. stop the fluid/repeat the obs)

Ask receiver to repeat key information to ensure understanding

The SBAR tool originated from the US Navy and was adapted for use in healthcare by Dr M Leonard and colleagues from Kaiser Permanente, Colorado, USA

**Figure 2.6** SBAR (NHS, 2021c)







#### Activity 2.4 Critical thinking

Using the information from Activity 2.2 and 2.3, identify how you would communicate care of Kamal using SBAR.

An outline answer is provided at the end of the chapter.

## Chain of survival and basic resuscitation guidelines

Having communicated and escalated care for Kamal, let us now consider the chain of survival and basic resuscitation guidelines. The chain of prevention mentioned previously is a systematic approach to recognising, responding and escalating care of a deteriorating/acutely ill patient. The chain of survival (see Figure 2.7) on the other hand is a series of actions to be taken in the event of a cardiac arrest. The first step undertaken is early recognition or call for help; early recognition would include a rapid ABCDE assessment, call and clear communication for help, and the management of life-threatening problems first. Your role as a NA student working under supervision would be to support the recognition of deterioration (completing vital signs) and escalation of care. As a NA student and qualified NA, you will receive basic life support training, and you may at some point be involved in undertaking CPR, either by doing compressions, or carrying out defibrillation if trained to do so. Post resuscitation care would be carried out after return of spontaneous circulation (cardiac output) and when/if the patient has stabilised.

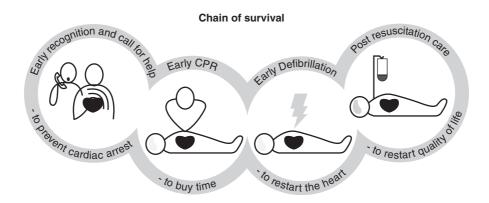


Figure 2.7 Chain of survival (RCUK, 2021c, reproduced with the kind permission of Resuscitation Council UK)

The purpose of this chapter is not to teach you basic CPR, but it is worth drawing your attention to the RCUK (2021d) algorithms for 'adult in-hospital resuscitation' (see Figure 2.8), and 'adult basic life support in community settings' (see Figure 2.9). You will see these algorithms in your local clinical policies and be trained in line with these when undertaking mandatory basic life support training. The RCUK guidelines (2021d) have been updated in light of COVID-19 with







this statement 'throughout the pandemic, RCUK resuscitation guidance for known or suspected COVID-19 patients has been consistent, advising personal protective equipment for aerosol generating procedures for chest compressions and advanced airway procedures'. For CPR carried out in a non-clinical setting the advice from RCUK (2021d) in relation to COVID-19 is 'if there is a perceived risk of infection, rescuers should place a cloth/towel over the patient's mouth and nose and attempt compression-only CPR and early defibrillation until the ambulance (or advanced care team) arrives'.

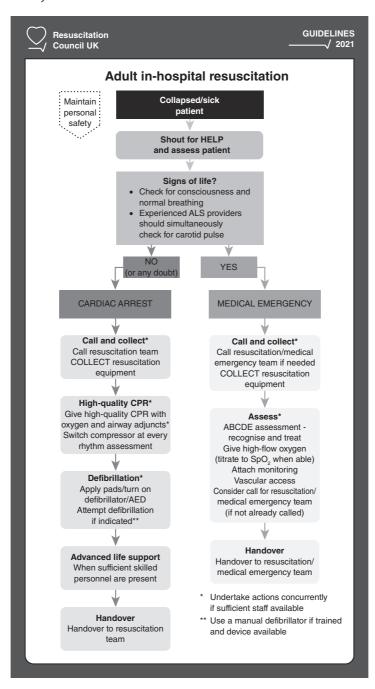


Figure 2.8 Adult in-hospital resuscitation (RCUK, 2021d, reproduced with the kind permission of Resuscitation Council UK)







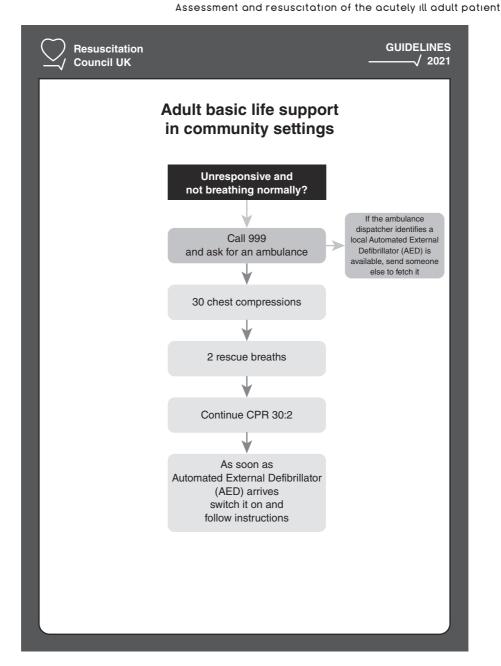


Figure 2.9 Adult basic life support in community settings (RCUK, 2021d, reproduced with the kind permission of Resuscitation Council UK)

Having discussed the chain of prevention, and from briefly looking at the chain of survival, the final section on his chapter will touch on utilising the ReSPECT acronyms to support advanced DNAR decisions.

#### ReSPECT and DNAR

Cardiopulmonary resuscitation (CPR) was first introduced in the 1960s as a treatment for a person whose heart had stopped, following a myocardial infarction (MI) or similar (RCUK, 2016). However, CPR may not be appropriate for all patients, for example those who are gravely ill, whereby attempts







to restart their heart would be futile. RCUK (2016, page 2) stated that 'anticipatory decisions about CPR were recognised as the way to try to ensure that dying people were not subjected to the trauma and indignity of attempted CPR with no realistic prospect of benefit'. All clinical areas, including care home, ambulances and GPs must have a clear policy about CPR decisions. ReSPECT (recommended summary plan for emergency care and treatment) is a way of creating personalised recommendations for a person in the event of a cardiac arrest (RCUK, 2021e). This is a process that considers and respects the patient's preferences and the judgement of the clinician. ReSPECT is a multidisciplinary approach to patient care, and decisions are made after several discussions and recommendations. Although the implantation of ReSPECT is not always possible or appropriate in the event of a sudden cardiac arrest, the process could be considered if deterioration and suspected poor clinical outcome is the diagnosis. Making decisions about DNAR should be timely; however, this is not always possible.

#### Activity 2.5 Reflection

Watch the following video titled 'Joe's ReSPECT Journey – a ReSPECT explainer for healthcare professionals' to learn more about ReSPECT and its application:

https://youtu.be/dp-qOgmBTRw (RCUK, 2021e)

As this activity is based on your own reflective listening, no outline answer is provided at the end of the chapter.

#### Chapter summary

This chapter began by discussing the chain of prevention and its application to recognising and caring for a deteriorating/acutely ill patient. The importance of understating the six physiological signs and their normal parameters was addressed, alongside identifying why patient assessment is fundamental in reducing sub-optimal care. The ABCDE assessment and its rationale for use was provided, and the use of a validated track and trigger system to escalate patient care was discussed. SBAR as a communication tool was highlighted and this then led to an overview of the chain of survival, including a brief introduction to basic resuscitation guidelines. This chapter was finalised with an overview of the acronym ReSPECT and its use in practice when making advanced DNAR decisions.

#### Activities: brief outline answers

Activity 2.1 Critical thinking

The six physiological signs are respiratory rate, oxygen saturations, blood pressure, heart rate, temperature and level of consciousness.







#### Normal parameters are:

- respiratory rate = 12-18 breaths per minute;
- oxygen saturations = >95% (for COPD patients, 88%-92%);
- blood pressure = 120/80 mmHg;
- heart rate = 60-100 beats per minute;
- temperature = 36.1-37.2 °C.

#### Activity 2.2 Reflection

Airway - clear, Kamal is speaking full sentences

Breathing - saturations 92%, respiratory rate 28 breaths per minute, bi-lateral chest expansion.

Circulation – heart rate 28 beats per minute, BP 170/100 mmHg, temperature 36.0°C, chest pain down left arm

Disability - type 2 diabetic (check BMs), alert and conscious GCS 15/15

Exposure - no wounds identified

Past medical history

Type 2 diabetes, hypertension, angina and smoker

#### Activity 2.3 Critical thinking

NEWS2 = 7. Aggregated score of 7 or more, indicates a high clinical risk and requires an urgent or emergency response.

#### Activity 2.4 Critical thinking

#### Situation:

Hi my name is Amy and I am a nursing associate calling from A&E and I am calling about Kamal who is a 59-year-old man admitted to A&E by ambulance with chest pain. I am calling because I am concerned about his observations as he is scoring a 7 on the NEWS2 score.

#### Background:

Kamal has been complaining of chest pain radiating down his left arm; this has become increasingly worse over a few hours and his wife called an ambulance. Kamal smokes 10–15 cigarettes a day, is overweight and has a history of hypertension, angina and type 2 diabetes.

#### Assessment:

Kamal's observations are saturations 92 per cent, respiratory rate 28, BP 170/100, heart rate 100, temperature  $36.0^{\circ}$ C and he is alert.

#### Recommendation:

I have started Kamal on high-flow oxygen, completed an ECG and started continuous monitoring of vital signs. I need you to come and see Kamal as a matter of urgency.







#### Further reading

**Steen, C.** (2010) Prevention of deterioration in acutely ill patients in hospital. *Nursing Standard*, 24(29): 49–57.

This is a really interesting and easy to read article on how to prevent and respond to a deteriorating acutely ill patient.

Moffat, S., Skinner., J. and Fritz, Z. (2016) Does resuscitation status affect decision making in a deteriorating patient? Results from a randomised control vignette study. *Journal of Evaluation of Clinical Practice*, 22(6): 917–923.

This is worth a read, and provides an interesting insight into DNAR and decision making in patients who are deteriorating.



