Healthcare Support Worker Education and Competency Programme: National Early Warning Score

Learning Contract

The following statements apply to the individual learner and should be completed prior to undertaking any supervised practice and competency development/sign off.

As a learner I declare that I have/will:

- Successfully completed all mandatory requirements
- Use constructive feedback and advice to positively inform my learning
- Take responsibility for my own learning and development and maintaining my competence in NEWS assessments
- Complete supervised practice within reasonable timeframes, and not practice unsupervised until I am assessed and signed off as competent.

Learner Signature:……

Facilitator Signature:……

Date:……

Contents

Introduction

Welcome to the NHS Greater Glasgow and Clyde (NHSGGC) Adult Health Care Support Worker (HCSW) National Early Warning Score (NEWS) education and competency programme.

You have been nominated to attend this programme by your Senior Charge Nurse (SCN)/Team Leader, with the understanding that you have been in post for at least three months, have completed corporate induction and the HCSW Code of Conduct.

This programme has three stages:

Before the study day	**At** the study day	**After** the study day
Please work through this workbook and complete the activities. This will provide the foundation information for the practical workshop.	Build on your learning from reading and completing the activities in this workbook. Take part in the practical sessions on measuring and recording pulse, temperature, respiratory rate, blood pressure, ACVPU on the NEWS chart.	Undertake supervised practice to achieve competency, with the support of preceptor who will sign your competency booklet (this will be provided on the study day). Achieve final sign off from SCN / Team Lead / Educator.

As there will be a practical element to the workshop, please bring with you:

- Uniform
- Watch/timer
- Pen
- This workbook (with pre-course activities completed)
- A willingness to learn

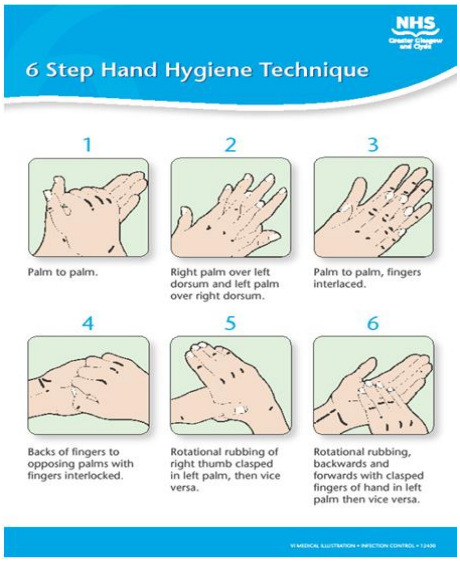
This workbook is to help you prepare and learn about key aspects of NEWS monitoring of patients. As you work through this workbook, you will notice there are links to websites (usually in a different colour of text and underlined), please click on these links or use a mobile phone camera to scan and open the QR code to access these resources.

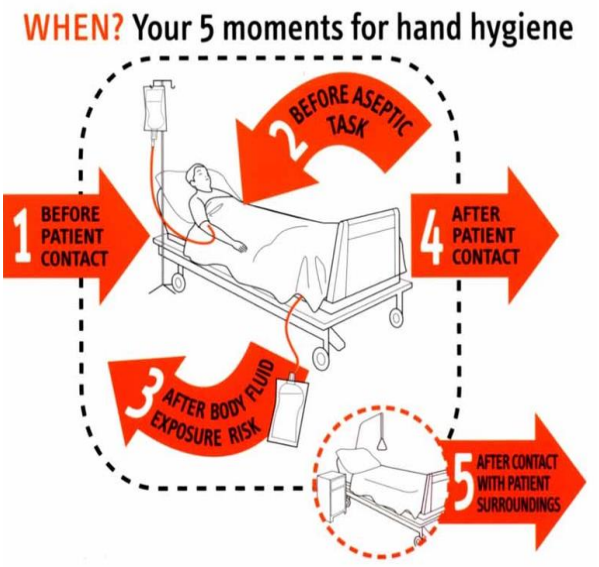
As you work through the workbook please complete the pre-course activities. Don’t worry about completing the sections marked ‘study day’, as these will be completed when you take part in the practical sessions at the workshops

Considerations		
Accountability	It is important to always work within your HCSW Code of Conduct (NES, 2020). Please ensure you have re-read the code, prior to the study day.	Date read……
Consent	Patients should be aware of the procedure you are planning to undertake and give consent for this. This should be from the patient. More information on consent can be found in the 'Consent Policy on Healthcare Assessment, Care & Treatment (NHS GGC, 2021). Please ensure the patient is correctly identified. This can include verbal communication, a check of the name band or patient notes.	Date read……
Adults with Incapacity (AWI)	The Adults with Incapacity Act (AWI) (2000) protects and supports those who lack the capacity to make decisions. The Act allows a person to receive treatment, however, there are safeguards and exceptions. When an AWI section 47 is in place all staff must follow the principles of the Act.	Date read……
Patient Preparation	Ensure your patient is comfortable and safe before, during and after the clinical procedure whilst providing emotional and physical support throughout.	

Equipment	All equipment should be cleaned before and after using it, according to local policy. Choosing the appropriate equipment, correct sized BP cuff, undertake pre-checks on device of choice and ensure it is clean, intact and within service date.	Date read……
Infection Prevention and Control	Before touching your patient, please ensure hand hygiene is carried out as instructed below and appropriate personal protective equipment (PPE) is used as per local infection control policy. Hand Hygiene - NHSGGC	Date read……

Hand hygiene should be performed as indicated in NHSGGC policies:



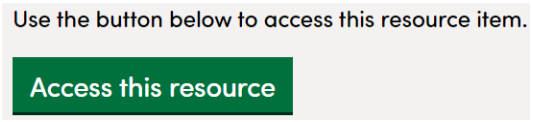


Adult Early Warning Score (EWS)

Vital signs and observations are essential to assessing a patient's clinical condition. Regular recording and assessment of observations are used to detect signs of serious illness or deterioration, and provide the necessary information on how a patient's illness is responding to treatment. Vital signs include heart rate, respiratory rate, blood pressure, oxygen saturations and temperature. We also use our clinical judgement to assess levels of consciousness and acting on concerns staff/or carers have about the patient.

NEWS (National Early Warning Score) was introduced to improve communication of the deteriorating patient across the UK. Previously there had been variety of early warning score charts, all with different criteria and scoring methods. The Royal College of Physicians recommended the using the same early warning scoring system across the whole of the UK. This criteria is used in NHSGGC in our NEWs chart. By using NEWS, we can recognise sick patients early and manage any deterioration.

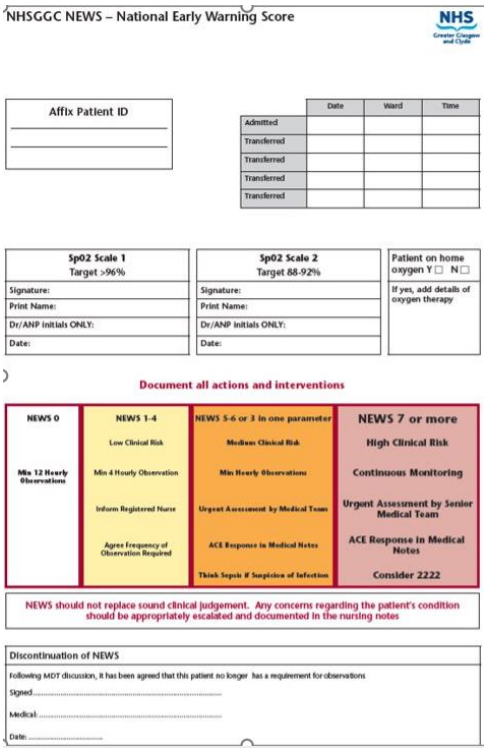
Further information can be found in NHSGGC NEWs Guideline. Once you access the webpage click on this box:



or scan

Example of NEWS chart

Front Page



NHSGGC NEWS – National Early Warning Score

NHS Greater Glasgow and Clyde

Affix Patient ID

	Date	Ward	Time
Admitted			
Transferred			
Transferred			
Transferred			
Transferred			

Sp02 Scale 1 Target >96%	Sp02 Scale 2 Target 88-92%	Patient on home oxygen Y☐ N☐
Signature:	Signature:	If yes, add details of oxygen therapy
Print Name:	Print Name:	
Dr/ANP initials ONLY:	Dr/ANP initials ONLY:	
Date:	Date:	

Document all actions and interventions

NEWS 0	NEWS 1-4	NEWS 5-6 or 3 in one parameter	NEWS 7 or more
Min 12 Hourly Observations	Low Clinical Risk	Medium Clinical Risk	High Clinical Risk
	Min 4 Hourly Observation	Min Hourly Observations	Continuous Monitoring
	Inform Registered Nurse	Urgent Assessment by Medical Team	Urgent Assessment by Senior Medical Team
	Agree Frequency of Observation Required	ACE Response in Medical Notes	ACE Response in Medical Notes
		Think Sepsis if Suspicion of Infection	Consider 2222

NEWS should not replace sound clinical judgement. Any concerns regarding the patient's condition should be appropriately escalated and documented in the nursing notes

Discontinuation of NEWS

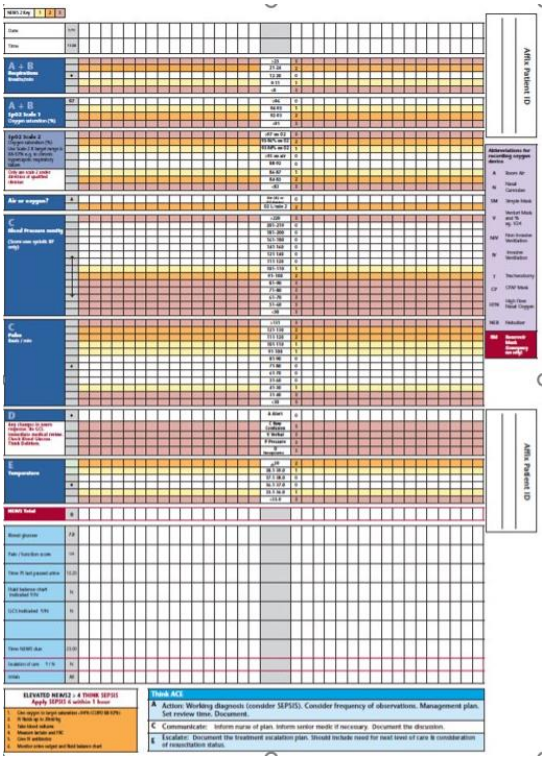
Following MDT discussion, it has been agreed that this patient no longer has a requirement for observations

Signed:.....

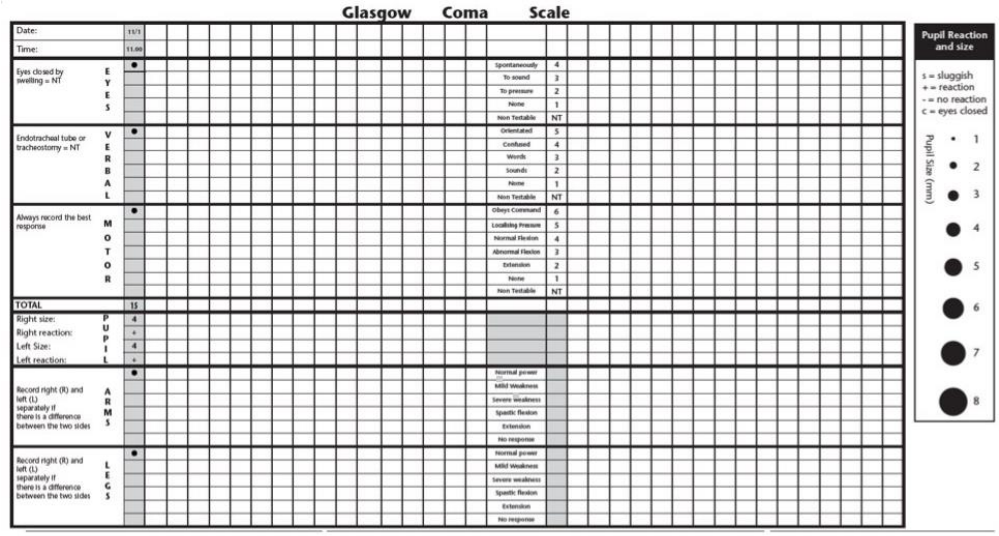
Medical:.....

Date:.....

Inside Pages



Back Page



Glasgow Coma Scale

Eyes closed by swelling = NT	EYES	Spontaneously	4
		To sound	3
		To pressure	2
		None	1
		Non Testable	NT
Endotracheal tube or tracheostomy = NT	VERBAL	Orientated	5
		Confused	4
		Words	3
		Sounds	2
		None	1
		Non Testable	NT
Always record the best response	MOTOR	Obeys Command	6
		Localising Pressure	5
		Normal Flexion	4
		Abnormal Flexion	3
		Extension	2
		None	1
		Non Testable	NT
TOTAL			15
Right size: 4 Right reaction: +	PUPIL		
Left Size: 4 Left reaction: +			
Record right (R) and left (L) separately if there is a difference between the two sides	ARMS	Normal power Mild Weakness Severe Weakness Spastic flexion Extension No response	
Record right (R) and left (L) separately if there is a difference between the two sides	LEGS	Normal power Mild Weakness Severe weakness Spastic flexion Extension No response	

Pupil Reaction and size

s = sluggish
+ = reaction
- = no reaction
c = eyes closed

Pupil Size (mm): 1 2 3 4 5 6 7 8

Pain Score

Ask the patient to rate his/her pain by using numerical scale 0 to 10. Use the chart below to assist the patient. If the patient is unable to communicate, use alternative pain scoring tools.

No Pain	Mild Pain			Moderate Pain			Severe Pain		
0	1	2	3	4	5	6	7	8	9	10

Pain Function Score

A	No limitations, activity unrestricted by pain or settles quickly
B	Mild limitations, mild activity restrictions
C	Moderate limitations, attempts but reluctant to continue because of pain **Seek Advice**
D	Severe limitations, unable to or refuse to perform because of pain **Urgent Review Required**

Affix Patient ID

Respiratory Rate

Breathing is the process of air moving in and out of the lungs supplying essential oxygen to the body's organs and tissues.

Activity: Watch the video:

How do lungs work?

Date watched……

We can successfully assess a patient's breathing by watching their chest movement, listening for any abnormal breathing sounds, and counting the breath rate (speed of breathing over one minute).

When counting a respiratory rate, both the inspiration (breathing in) and expiration (breathing out) are included as 1 breath and should be counted for **60 seconds** in total and no less. Normal respiration should look effortless, there should be no audible sounds and the chest should move equally (both sides of chest rise and fall at the same time) and at an even rate.

The picture below shows how we accurately document and plot our findings in the NEWS chart. We **must** accurately score the respiratory rate, highlighting any cause for concern by reporting and escalating appropriately, to the correct person.

Activity: What do you think would change your respiratory rate?

……

……

……

……

……

……

……

Oxygen Saturations

Oxygen is carried around the body in haemoglobin which is found in red blood cells. A pulse oximeter is a method to measure the level of haemoglobin and is a way of measuring the amount of oxygen in the blood. This is known as oxygen saturations or Sp02.

There are different probes available. These are detachable probes and display a red sensor light when connected correctly.

Activity: Watch the video:

[How to measure someone's oxygen levels]

Date watched……..

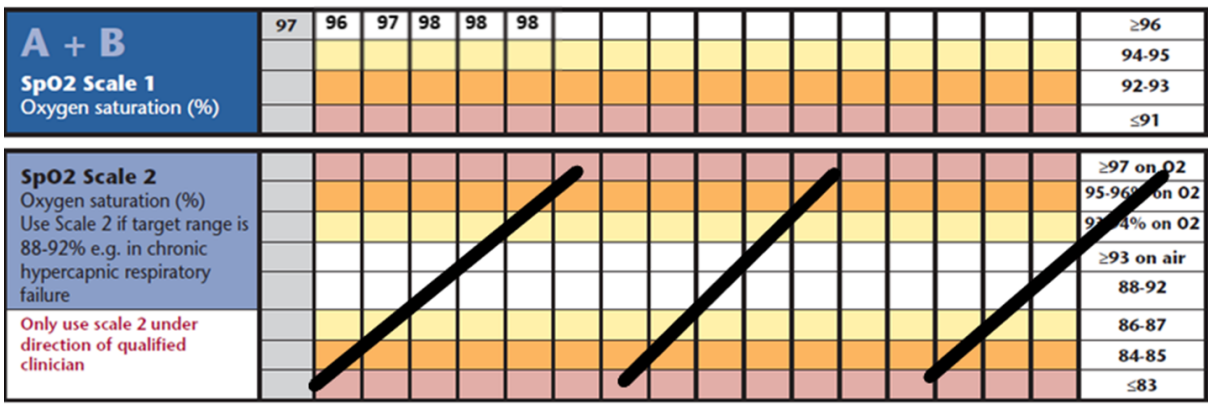
Finger probe

Ear probe

The one shown above is for use of fingers/toes only. This should **not** be used on ears. There are specific probes for measuring oxygen saturations on ears.

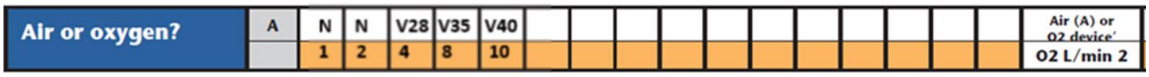
Oxygen saturation levels should ideally be 94% -100% in adults. This is measured on Scale 1. There are a range of conditions that may have differing ranges of acceptable parameters for clinical reasons for example; 88 – 92%. This is measured using Scale 2. The front page of the NEWS chart where a medical professional should have completed the Sp02 scale to be used.

Accurately document and plot findings in the NEWS chart as per picture below:



Air or Oxygen

In the air or oxygen section, it needs to be documented if the patient is breathing room air or receiving oxygen therapy. If receiving oxygen, how many litres and the device being used to administer the oxygen is also documented.



Air or oxygen?	A	N	N	V28	V35	V40											Air (A) or O2 device'
		1	2	4	8	10											O2 L/min 2

Abbreviations for recording oxygen device	
A	Room Air
N	Nasal Cannulae
SM	Simple Mask
V	Venturi Mask and % eg. V24
NIV	Non invasive ventilation
IV	invasive ventilation
T	Tracheostomy
CP	CPAP Mask
HFN	High flow nasal oxygen
NEB	Nebuliser
RM	Reservoir Mask (Emergency use only)

Activity:

Think of patients who you have looked after, what has caused oxygen (Sp02) levels to drop?

……

……

……

How did your patient look?

……

……

……

……

Pulse

A pulse (also known as your heart rate) is the number of times your heart beats in one minute. We all have different pulse rates and this can change over time. The normal range in an adult is 60 – 100 beats per minute (bpm).

While measuring the pulse rate, you also assess how regular the pulse is and the strength which can be weak (thready) or strong (bounding). A baseline pulse is important to monitor changes.

Activity: Watch the video

How your heart works

Date watched…….....

Where on the body can we feel a pulse?

By placing index and middle fingertips together as shown below, we can feel the pulse pushing through the arteries. Please remember **not** to use your thumb to assess a pulse. You have a pulse in your thumb that means it is likely you will feel your own pulse instead of your patient's.

Electronic devices such as a pulse oximeter, described in the oxygen saturation section of this pack, also measure a pulse rate. However, measuring a pulse is not just about the number of beats, but also about the strength, regular/irregular which can **only** be felt manually. Therefore, it is important that if using a pulse oximeter, you must feel a manual pulse.

Activity: During a normal day, what do you think makes your pulse rate increase?

……

……

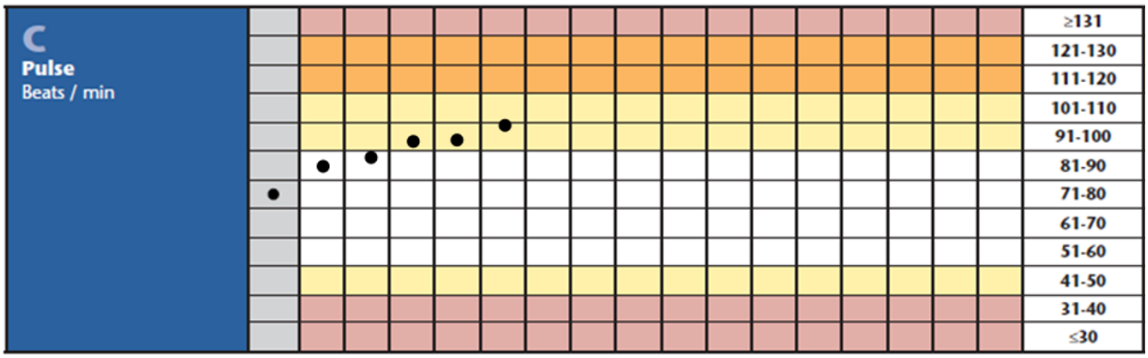
……

Activity: During a normal day, what do you think makes your pulse rate slow down?

……

……

Once a pulse rate has been recorded, please document appropriately in the NEWS chart.



Blood Pressure

Blood pressure is the pressure that the blood exerts against the inner walls of the blood vessels, and it is the force that keeps the blood circulating continuously, even between heartbeats.

Many factors can affect the accuracy of the blood pressure recorded, including efficiency and accuracy of equipment, use of correct technique and other variables including temperature, exercise, obesity and movement.

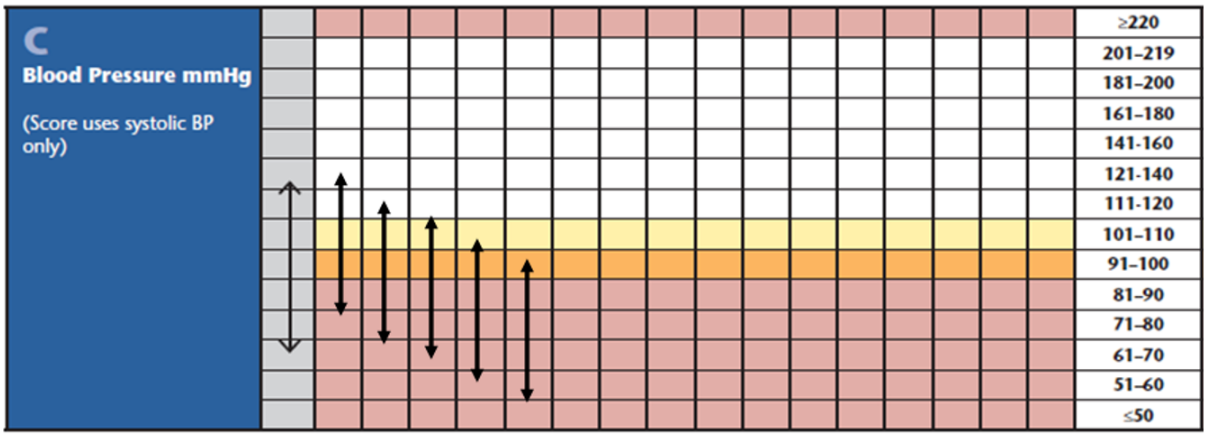
Activity: Watch the video

How blood pressure works

Date watched:……

We are using a non-invasive method of measuring blood pressure using an electronic monitoring device. Most commonly available look similar to these.

The electronic monitor will display two numbers. The highest number is known as the systolic blood pressure, and is the pressure against the artery wall when the heart is contracting and pumping blood around the body. The lower number displayed on the monitor is known as the diastolic blood pressure, and is the pressure against the artery wall when the heart is relaxing and refilling. Blood pressure is measured in mmHg. When documenting a blood pressure in patient notes, you will see this as Systolic/Diastolic. From the picture of the monitor above, this would documented as 125/82mmHg. Once the reading has been identified, it must be charted in the NEWS chart accordingly. Both the systolic and diastolic need to be recorded, but it is only the systolic that gets scored on the NEWS chart.



Activity: During a normal day, what do you think makes your blood pressure increase?

……

……

……

……

……

……

……

Activity: During a normal day, what do you think makes your blood pressure lower?

……

……

……

……

……

……

……

Conscious Level

A Rapid assessment of a patient's conscious level can be determined by the ACVPU score. This is a simple acronym for the grading.

Activity: watch the video

ACVPU

Date watched.....

A= Alert

C= New confusion

V= Verbal response

P= Painful response

U= Unresponsive

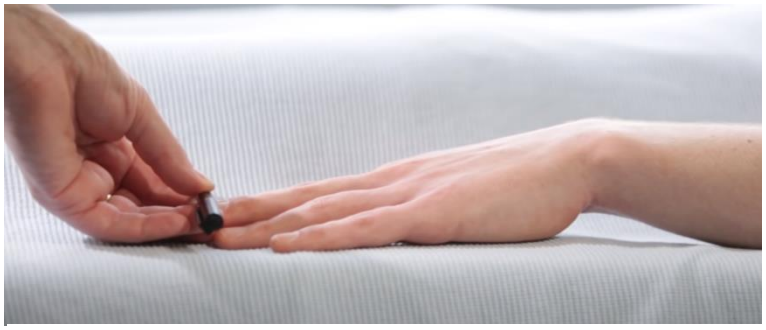
A = Alert: If a patient is alert or asleep and woken easily, simply plot this on the NEWS chart and score appropriately.

C = New confusion: if a patient is alert, but confused or disorientated. It is a not always possible to determine if the confusion is new. It should be considered new until it can be confirmed as being previously present. New onset or worsening confusion should always cause concern as may have serious underlying causes and will need an urgent review and further clinical assessment.

V = Verbal: If the patient is difficult to rouse from sleep or is drowsy and only responds to you speaking to them, this should be documented as a verbal response and escalated immediately to the nurse in charge of the patient for further assessment and escalation if required.

P = Pressure: If the patient does not respond to you speaking to them (verbal response), please seek immediate help for further intervention by medical and nursing staff if you are having difficulty rousing the patient.

The next step would be to apply a pressure stimulus to the fingertip, earlobe or a trapezius (shoulder muscle) squeeze. Pressure is applied for a **max 10secs** and assess the response.

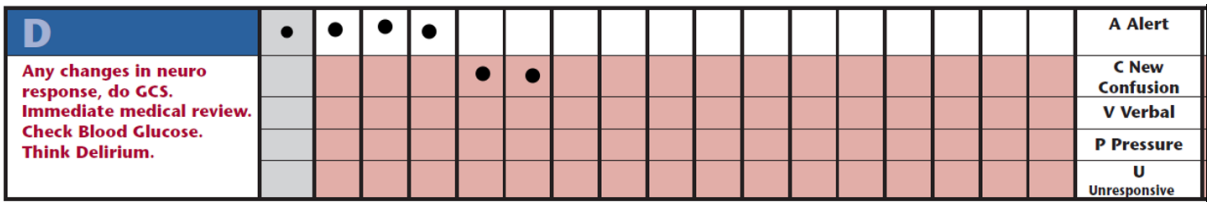


Finger tip

Trapezius squeeze

U = Unresponsive: the patient is unable to respond to any of the above steps. Please seek immediate help for further intervention by medical and nursing staff.

The outcome of the ACVPU assessment should be plotted accordingly.



Activity: What do you think can affect your conscious level?

……

……

……

……

……

……

……

Temperature

Measuring the temperature of our patients is important to provide vital information about environmental factors or their infection status.

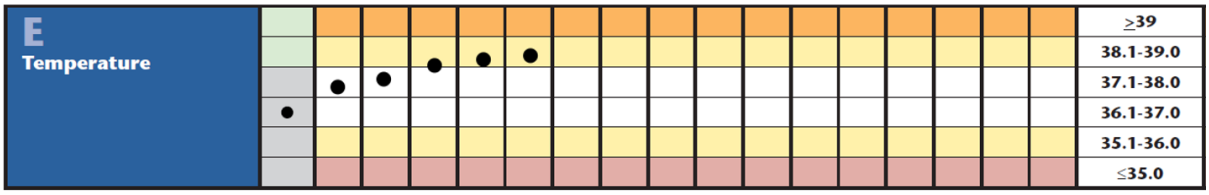
Normal temperature ranges for healthy adults 36° to 37° although safe ranges on the NEWS is between 36° and 38°. Any temperature above 38° (also known as pyrexia) and temperatures between 35° and 36° (known as hypothermia), and below 35° is severe hypothermia.

In adults we check temperature using a probe in the ear. This measures heat from the ear drum (tympanic temperature).

Activity: Watch the video

Regulating body temperature

Date watched:……



Activity: What do you think affects your temperature?

……

……

……

……

……

……

……

Glossary of terms

Term	Meaning
Hypo	Low
Hypothermia	Low body temperature
Hypoglycaemia	Low blood sugar
Hypotension	Low blood pressure
Hypoxia	Low blood oxygen
Hyper	High
Hypertension	High blood pressure
Hyperglycaemia	High blood sugar
Tachy	Fast
Tachycardia	Fast heart rate/pulse
Tachypnoea	Fast breathing rate
Brady	Slow
Bradycardia	Slow heart rate/pulse
Bradypnoea	Slow breathing rate
Cardiac Arrest	Sudden, unexplained heart stop
A	Absent
Apnoea	No breathing
Pyrexia	High body temperature

Write down anything you are still not sure about to make sure we answer this at the practical workshop.

Things I'm still not sure about…

……
……
……
……
……
……
……
……..

Well done on completing you pre-course reading. We are looking forward to seeing you at the practical workshop!

Study Day Contents

	Register, Introductions, aim & learning outcomes and format of the session
	Overview of pre-course reading; interactive quiz
	Governance & NEWS guideline content
	Tea/coffee break
	Theory of physiological parameters used in NEWS with practical application and practice
	Lunch
	Communication skills and SBAR with practical application and practice
	Simulated scenarios using mid-fidelity manikins; NEWS and reporting. Each learner will require opportunity to ‘lead’ a scenario.
	Course evaluation and interactive quiz

The following pages will be used during the practical workshop.

Peer Appraisal Checklist - Measuring, Recording and Documenting Respiration

- [ ] Performs hand hygiene
- [ ] Ensure patient is in a comfortable position
- [ ] Ensure nurse can access patient without risk
- [ ] Observes patient throughout
- [ ] Does not inform patient / client when respirations are being taken
- [ ] Count discreetly the respiratory rate for 60 seconds
- [ ] Accurately and correctly record respirations on appropriate chart
- [ ] Can comment on other observations being made:
    - [ ] Any additional noises
    - [ ] Patient colour
    - [ ] Any signs of respiratory effort
- [ ] Performs hand hygiene
- [ ] Leave patient comfortable

Peer Appraisal Checklist - Measuring, Recording and Documenting Pulse Oximetry

- ☐ Performs hand hygiene
- ☐ Explains procedure to patient
- ☐ Gains consent
- ☐ Ensures patient is in a comfortable and appropriate position
- ☐ Gathers all equipment.
- ☐ Checks equipment is clean and ready for use
- ☐ Asks the patient to remain still throughout the procedure (to ensure accuracy of recording)
- ☐ Assess respiratory status (ability to talk in full sentences, colour, do they appear distressed, are the alert and orientated)
- ☐ Check the area to be used has good perfusion (warm, peripheral pulse present)
- ☐ Ensure the area to be used is clean (if using a finger, nail polish should be removed)
- ☐ Select the correct sensor
- ☐ Position sensor correctly, without using tape (unless manufacturer's instructions suggest otherwise)
- ☐ Turn pulse oximeter on
- ☐ Ask the patient not to talk during the procedure, while you palpate the pulse. (Throughout the procedure, check the electronic pulse reading matches how the patient appears v's what you actually feel)
- ☐ Accurately and correctly document SpO_2 on NEWS chart in correct scale
- ☐ Accurately and correctly document oxygen delivery device, or room air
- ☐ Clean the equipment
- ☐ Performs hand hygiene
- ☐ Leave patient comfortable

Peer Appraisal Checklist - Measuring, Recording and Documenting Manual Pulse

- ☐ Performs hand hygiene
- ☐ Explains procedure to patient
- ☐ Gain patient consent
- ☐ Ensure patient is in a comfortable position
- ☐ Observes patient throughout
- ☐ Locate radial artery
- ☐ Press gently with 1st three fingers
- ☐ Take pulse for 60 seconds
- ☐ Comment on quality, regularity and strength of the pulse
- ☐ Accurately and correctly document pulse on NEWS chart.
- ☐ Perform hand hygiene
- ☐ Leave patient comfortable

Peer Appraisal Checklist - Measuring, Recording and Documenting Blood Pressure

- ☐ Performs hand hygiene
- ☐ Explains procedure to patient
- ☐ Gains consent
- ☐ Assesses arms for contraindications of use (e.g. IV fluids in progress, existing or risk of lymphoedema, arteriovenous fistula, trauma or surgery to arm or axilla, brachial artery surgery). If present, use alternative arm
- ☐ Ensures patient is in a comfortable position (should be at rest for at least 5 minutes prior to procedure)
- ☐ Gathers all equipment
- ☐ Checks equipment ready for use and cuff size correct (bladder should be 80% of arm circumference and 40% length).
- ☐ Check the arm is free from clothing and supported (e.g. with a pillow)
- ☐ Ensures legs are uncrossed (this can give a false high reading)
- ☐ Ask the patient to remain still and not to eat or talk during the procedure (this can give a falsely high reading)
- ☐ Wrap the cuff 3-5 cms around the bare arm over the brachial artery and above the elbow. The tubes from sphygmomanometer can be leading upwards, towards patient's shoulder or downwards, however, upwards prevent the tube interfering with the stethoscope.
- ☐ Positions sphygmomanometer level with the heart
- ☐ Palpates brachial artery while pumping air into the cuff, using the bulb. Once pulse disappears, rapidly inflate a further 20 – 30 mmHg
- ☐ Slowly deflate the cuff to the point where the pulse is palpable again, this is the **estimated Systolic Blood Pressure**
- ☐ Deflate the cuff an wait for 15 – 30 seconds
- ☐ Positions stethoscope ready for use (the bell should be placed firmly but without too much pressure on the skin over the brachial artery - where the pulse could be felt)
- ☐ Inflate the cuff over again to 20 – 30 mmHg above the estimated systolic blood pressure
- ☐ Releases air from cuff slowly (at about 2-3 mmHg per second) until the first tapping sound is heard (this is the systolic Blood pressure)

- [ ] Continue to deflate the cuff slowly, listening to the Korotokoff Sounds, when this disappears, this can be recorded as the **Diastolic Blood Pressure**
- [ ] Once the sounds disappear, rapidly deflate the cuff
- [ ] If you need to repeat the Blood Pressure measurement, wait 1 – 2 minutes before proceeding
- [ ] Accurately and correctly document systolic and diastolic blood pressure on NEWS 2 chart
- [ ] Clean the equipment
- [ ] Perform hand hygiene
- [ ] Leave patient comfortable

Peer Appraisal Checklist - Measuring, Recording and Documenting Tympanic Temperature

- [ ] Perform hand hygiene
- [ ] Explain procedure to patient
- [ ] Gain patient consent
- [ ] Obtain correct equipment and ensure it is clean and working
- [ ] Ensure patient is in a comfortable position
- [ ] Observes patient throughout
- [ ] Check thermometer is ready for use
- [ ] Apply single patient use probe cover over thermometer probe
- [ ] Switch on thermometer
- [ ] Stabilise patient's head
- [ ] Pull ear lobe downwards (or pinna upwards)
- [ ] Hold thermometer steady and scan temperature
- [ ] Accurately and correctly record temperature on NEWS chart
- [ ] Safely dispose of contaminated ear probe cover
- [ ] Clean the equipment
- [ ] Perform hand hygiene
- [ ] Leave patient comfortable