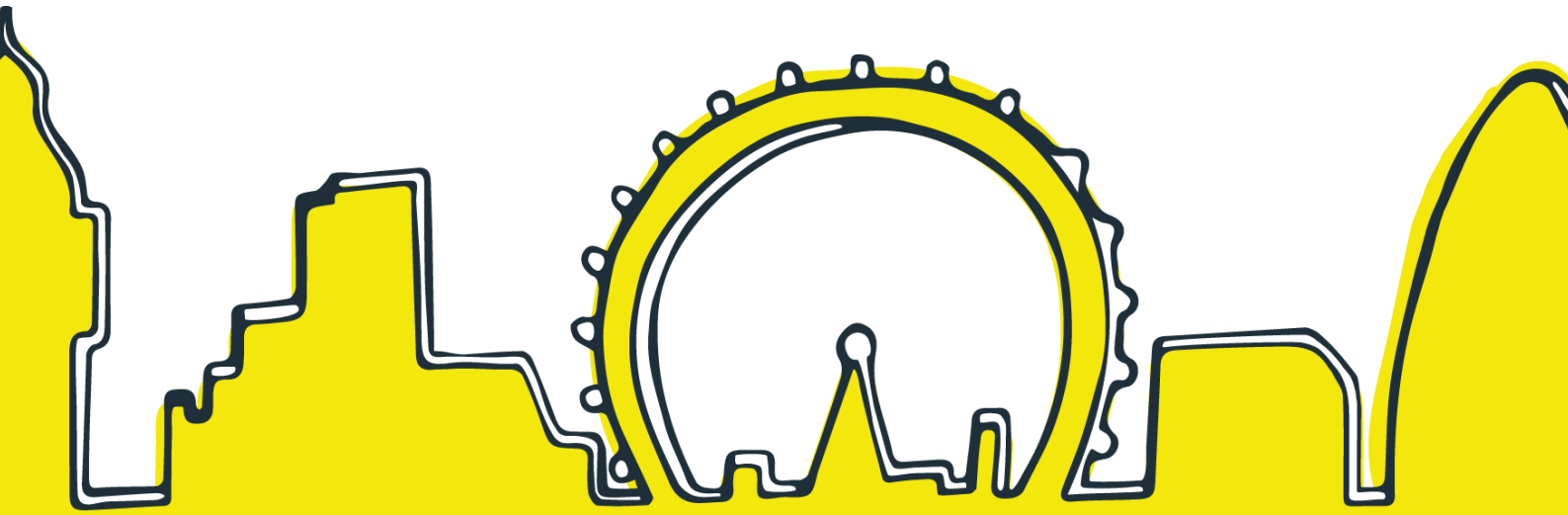
CAPITAL nurse

NHS
Health Education England

Work Experience in Nursing

A Best Practice Guide for Health and Social Care Providers



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Introduction

The best practice guide is a pan London resource for health and social care organisations to support the process of work experience in nursing. This recommended best practice approach to work experience in nursing has been developed through an extensive stakeholder engagement exercise involving practitioners from organisations across London, representing all fields of nursing.

Engagement has included task and finish group meetings, workshops, the CapitalNurse conference, and the sharing of best practice across organisations. This approach recognises that by providing an opportunity to engage, inspire and inform young people by offering work experience, it can support your organisation to develop the future workforce.

Background

One of the aims of CapitalNurse is to encourage more people to study to be nurses in London and enter the nursing workforce in London. CapitalNurse completed a survey with student nurses who commenced their courses post bursary removal, in universities in London and the surrounding areas. 239 responses were received and analysed, from across 10 universities and all fields of nursing. A key demographic finding from the study highlighted that nearly 80% of student nurses were already resident in London, and a recommendation for provisions of work experience opportunities to attract young people into nursing was made.

Work experience and pre-employment activity can form an integral part of an organisation's workforce supply strategy, helping people of all ages and backgrounds understand the world of work and make decisions about their education and career (HEE, 2015). The aim of offering work experience is to provide those interested in a career in health and social care, with the opportunity to gain an insight and understanding of healthcare careers. It is also a way of attracting the future workforce. The work experience you offer can be tailored to suit your organisation and can vary from insight days, lasting just half a day, through to clinical shadowing experience over one or two weeks.

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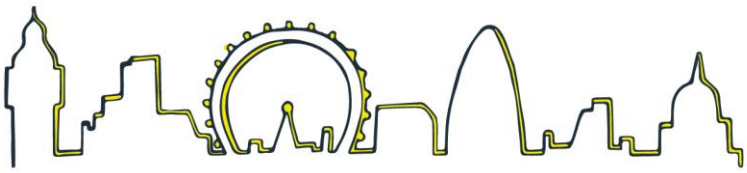
Five reasons why work experience will benefit your organisation

- To develop your future workforce
- To work with the local community, providing an opportunity to engage, inspire and inform people
- To develop existing registered/non-registered staff to develop and build management skills
- To gain fresh insights from seeing your organisation through someone else's eyes
- To increase staff engagement. Colleagues get a genuine buzz from inspiring young people

Key Facts in offering work experience for young people

- Work experience allows people to experience what it's like to undertake a job supervised by staff who already work in the environment
- Work experience is not offering a free 'pair of hands' to work in the environment
- Work experience needs to be tailored to the applicant's career aspirations and anticipated point of entry to healthcare careers
- Work experience has been shown to positively influence people's decisions about pursuing careers
- Work experience for 16-18 years old is a fully supervised activity and therefore a DBS is not required
- Risk assessments for all people undertaking work experience should reflect the Health & Safety at Work regulations and be undertaken as part of the application and induction to work experience



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Key considerations in offering work experience for young people

Strategic

- Ensure the organisation's education lead provides the strategic oversight of the programme.
- A comprehensive, streamlined process, for provision of and application for work experience, is essential in ensuring fair and equitable access to work experience.
- Depending on your organisation and the care given to your patients, it is important that your organisation's work experience policy is reviewed to ensure you can offer work experience to young people under the age of 18 years old.
- Honorary contracts should not be required when offering work experience for up to two weeks to young people under the age of 18 years old. However, it is good practice to review this with your HR team.
- Students will not be required to undertake local patient record training as they will not be recording information into the patients notes.
- Ensure confidentiality agreements are in place. It is also important that the student discloses to you if they recognise a patient in the clinical area.
- Map your work experience opportunities to areas of future workforce need.
- Ensure the team/ward manager is happy to facilitate the work experience placement. It is good practice to include the service manager/matron in these conversations as it will reassure the senior team that the work experience placements will not compromise the provision of safe and effective care.
- Completed documents will be stored in line with the GDPR standards.
- As the student will not be providing any 'hands on care', your organisation's insurance should cover your student during the work experience placement. However, it is important to check your organisation's insurance arrangements.

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Work Experience Process

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Recruitment

Contact your local schools or colleges directly to discuss a work experience arrangement

- Schools or colleges are required to offer work experience opportunities for their students and so should be happy to help.
- Link to those schools and colleges that can provide the type of applicant you are looking for, for example, do they have a high number of students from your local community?
- Working with local schools and colleges on a regular basis and educating students on a career in nursing can provide you with a strategic method of recruitment.

Use the contacts your organisation has already set up

- Schools and colleges may already be someone from your organisation attending their career fairs, open evenings and school events, as well as hosting assemblies.
- You may wish to consider a friends/family referral option to promote your organisation's work experience opportunities. An employee working in your organisation may know a potential candidate through a family or friend connection. The employee can support you in co-ordinating the work experience placement in conjunction with HR.
- Contact your neighbouring health and social care organisation to find out what approaches they are taking in offering work experience. You may want to consider a joined-up approach, if suitable.

Operational

- Young people benefit from being able to visualise themselves in the 'jobs' that they are gaining experience in. Consider role models/ those leading on the work experience, in relation to age, gender, ethnicity, language /accent.
- Activities that enable learning and a range of delivery methods will promote engagement of young people.
- Allaying fears and anxieties at the start of the experience and providing clear information on 'what do to do if….' is vital.
- Be mindful of the EU working time directive. Students should not be working long days or working over the agreed hours.
- Your student will not require a DBS as they are not providing any element of care to patients, they should not be given an access card to the clinical environment or left unattended with patients.
- Organise a name badge for the student. It is important for patients and staff to know who the student is and their role in the clinical environment.

Pastoral

- Providing a good induction to the clinical area will ease any anxieties that the students may have about the placement.
- Provide enough break times for the student, these may be longer and more frequent than staff breaks.
- Avoid changing the student's supervisor throughout the work experience placement.
- Encourage support from all members of the Multi-Disciplinary team.
- Offering opportunities for reflection and feedback is important for the students' learning and development needs
- Offering advice/information about nursing and your organisation will help the student make an informed choice about choosing a career in nursing.

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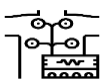
Activities the student can be involved in

Activities that students can be involved in with direct supervision at all times	
	Local induction to clinical area
	Simulation in basic skills
	Attending staff training sessions
	Helping make empty beds
	Helping with errands e.g. visit another department/Pharmacy
	Talking to patients/attending ward round
	Helping at meal times (cannot assist patients with feeding)
	Observing a clinician
	Observation of nursing techniques (routine as well as specialist)

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Activities the student should not be involved in on work experience

- Undertaking any activities for which specialised training is required (they can observe only).
- Undertaking any activity involved with clinical waste products/by products.
- Any activity which may jeopardise the safety of patients, staff or the student.
- Inappropriate or unsupervised access to patients' medical records or staff records, including accessing computers which have access to electronic records.
- Any unsupervised contact with patients

Please refer to Appendix 2 for examples of nursing activities you may wish to demonstrate to your student in practice.

Case Examples of Good Practice

- Work experience students are normally supervised all the time, and would not require a DBS. Some placements would not be suitable depending on the age of the student (such as A&E). All students must be at least 16 years old *(Kingston Hospital).*
- All work experience students without a DBS check will be fully supervised at all times whilst on placement. This includes unsupervised access to patients or patient's confidential information and working independently/alone or as part of service delivery for the duration of their placement *(Guys and ST Thomas Foundation Trust).*
- Candidate aged 14 –16 years old are not offered placements in clinical services, whilst those over 16 are supervised at all times and are not left alone with patients. No work experience candidates provide any 'hands on' or 'regulated care' and we do not provide placements in our CAMHS services where our patients are under age. Our policy also requires candidates to disclose immediately if they come into contact with a patient they know (*South West London and St George's Mental Health Trust).*

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Insight Days

Insight days are a good method of giving young people an overview of a health and social care organisation without having to facilitate 'hands on' work experience in clinical setting. The sessions can be run in either a half or full day basis.

Tips

- Encourage your ward/team/organisation managers to support you on the day.
- Encourage nurses from all fields of nursing working in your organisation to support you on the day.
- Ensure the school link/teacher has reviewed your timetable for the day.
- Avoid using acronyms throughout the day.
- Don't overcomplicate things.
- Keep information brief, simple and to the point.
- Consider the age range of your audience.

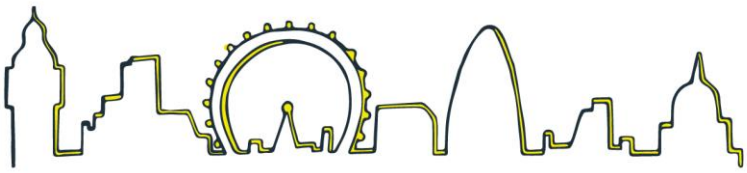
Agenda for your insight day

Welcome to the organisation

- Introductions.
- Housekeeping.
- Health & safety.
- What to do if you are unsure or concerned about information, activities, observations.
- Facilitate a short/simple presentation about nursing and your organisation's values.

Videos to show

- Nursing London
- RCN Modern Nursing
- RCN This is Nursing



Games

(Tips: Groups of 4-6)

What you need:

- Laminated images: patient and family, images of nurses, physios, doctors, health care support workers, catering, pharmacy etc.

What to do:

- Place image of patient and family at the centre.
- Who helps patients and families get the care they need? Everyone. How do nurses make the connections? Talk it through with the students.
- 'Jobs that care' game. An interactive board game that can be done in groups of 5-8 students. Request a free game from healthambassadors.LDN@hee.nhs.uk.

Skill stations

(Tips: Groups of 4-6)

- Infection Control: Show the handwashing chart and use glow light if available.
- Caring for others: Washing other people's hands using a bowl, soap, towel and hand cream.
- Communication: Some laminated simple pictures, paper, clipboard and pens. Ask students to sit back to back, and the person with the picture has to explain it to the other so they can draw it.
- Nursing Equipment/readings: Blood Pressure, O_2 saturations; with simple explanations about what information it tells us.
- First aid: Putting someone into the recovery position. Explain the process, giving instructions and reason for doing it.

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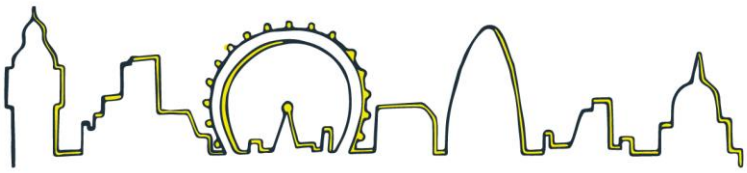
Visits

(Tips: Walk around – plan a route with one leader and 4-6 students)

- Where are they likely to see nurses in action?
- Advise the areas of the students' visit, remember to advise patients that they are observing.
- Options: Identify patients to have a conversation with the students (in pairs) and with direct supervision. Give the students some questions they could ask:
    1. *How long have you been in hospital?*
    2. *What is it like?*
    3. *What do the nurses do?*
- Identify some nurses who would be able to have a conversation with the students – give the nurses some hints as to what to talk about, give the student some questions to ask:
    1. *Why did you choose nursing?*
    2. *What is the best part of the job?*



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Appendix 1

Useful Resources

Standardised Templates

HEE have produced a Toolkit for health and social care organisations to guide them in developing and implementing work experience opportunities. There are a wide range of standardised templates and HR forms available that you may wish to use for your organisation. It is advised to speak with your HR lead to ensure these forms can be adapted and used within your organisation.

a) Work Experience Policy
b) Placement Opportunity form
c) Work Placement Risk Assessment
d) Confidential Health Questionnaire
e) Placement Agreement
f) Induction Checklist
g) Work Experience Plan
h) Work Experience Workbook
i) Certificate
j) Evaluation

Health Ambassadors

- Health ambassadors are employees from across the NHS who can support you in delivering your insight days, either within your organisation or by visiting schools, colleges and local communities to engage with young people.
- Health ambassadors can help your organisation promote itself to applicants who may not have previously had easy access to the NHS as a potential employer. For more information on finding your local health ambassador, please contact: healthambassadors.LDN@hee.nhs.uk

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- A wealth of resources on the two pan-London CapitalNurse workstreams supporting 'Routes into Nursing' and 'Retention'; includes the CapitalNurse 'Nursing London Film' **: https://www.hee.nhs.uk/our-work/capitalnurse/workstreams**
- A 'Routes into Nursing' information page on the Mayors website, includes an interactive 'routes into nursing' process map: https://www.london.gov.uk/what-we-do/health/capitalnurse

Talent for Care

- From raising awareness of careers in health for young people and those wishing to join the NHS workforce
- To supporting individuals to develop in their long-term career including with relevant qualifications,
- Talent for Care provides a framework for staff at all levels while also retaining a particular emphasis on improving opportunities for the support workforce
  HEE (2018) Talent for care and widening participation .

What comes next

- National strategic framework for engagement with schools and communities to build a diverse healthcare workforce:
  HEE (2018) What comes next?

Access Aspiration

- A mayor's funded programme to provide work experience for young people from socially deprived backgrounds
  Access Aspiration

Inspiring the Future

- Inspiring the Future enables schools to connect with inspirational volunteers from the world of work quickly and easily.

https://www.inspiringthefuture.org/how-inspiring-the-future-works/

Health Careers

- A resource of routes into Nursing https://www.healthcareers.nhs.uk/career-planning/resources

DBS

Further information is available on DBS requirements:

https://www.gov.uk/government/organisations/disclosure-and-barring-service

https://www.nhsemployers.org/-/media/Employers/Publications/DBS/DBS-scenarios.pdf

Appendix 1

Activities by field of Nursing

The following examples are some of the simple observational activities you might want to demonstrate in practice. You might also want to consider using some of these activities on your insight days or support your student to undertake these observations in simulation.

Adult Nursing

Adult nurses provide care for adults of all ages. They provide person-centred care - this means building good relationships with patients as well as their families.

Adult nurses assess, plan, coordinate and manage care for their patients, while working closely with other health and social care professionals plus members of the care team. They can work in a range of place including hospitals and in local community services (like GP practices). There are also opportunities to work in a wide range of specialist services, as well as residential and care homes.

Temperature

What are we measuring?

The normal body temperature of a person varies depending on gender, recent activity, food and fluid consumption, time of day, and, in women, the stage of the menstrual cycle. Normal body temperature can range from 36.5ºC (degrees Celsius) to 37.2º C for a healthy adult.

Why are we measuring it?

Body temperature may be abnormal due to fever (high temperature) or hypothermia (low temperature). A fever is indicated when body temperature rises about over the normal temperature to over 38 ºC. Hypothermia is defined as a drop-in body temperature below 35 ºC

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How do we measure it?

- A person's body temperature can be taken in any of the following ways:
- Orally. Temperature can be taken by mouth using either the classic glass thermometer, or the more modern digital thermometers that use an electronic probe to measure body temperature.
- Axillary. Temperatures can be taken under the arm using a glass or digital thermometer.
- Tympanic . A special thermometer can quickly measure the temperature of the ear drum, which reflects the body's core temperature (the temperature of the internal organs).
- Infra-red. A special thermometer can quickly measure the temperature of the skin on the forehead.

Tympanic Thermometer

- Take the thermometer out of its base holder.
- Put a new, throw-away cover over the tip of the thermometer.
- Ask the person not to move their head.
- Gently pull the ear up and then back.
- Put the covered tip into the ear opening. Do not use force or push hard. The thermometer tip should not touch the ear drum.
- Press the button to turn on the thermometer.
- Hold the button until the thermometer beeps or follow the instructions for your thermometer.
- Remove the thermometer from the ear opening.
- The temperature will show up in the "window".

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- Remove and discard the throw-away cover.
- Place the thermometer back into the holder.

Pulse/Heart Rate

What are we measuring?

The ventricles of the heart are responsible for pumping oxygenated blood around the body in arteries. The number of times the heart pumps is measured in beats per minute and is called the heart rate. This rate is generally measured at a pulse point which is where an artery lies close to the surface.

Why are we measuring it?

Measuring someone's pulse tells us how fast the heart is beating. Normal heart rate in an adult is 60-100 bpm. In children this is higher and will vary from person to person based on individual factors such as age and fitness levels. A patient's heart rate is measured regularly and recorded so that any changes can be detected. Increased heart rate means the heart is working faster to compensate for any stress to do with blood flow. Decreased heart rate means the heart is not working fast enough. This could be due to medication that controls heart rhythm (e.g. beta-blockers). Very fit people (such as athletes) can have a slow heart rate, but this is normal.

How do we measure it?

The carotid pulse (in the neck) is the most important as it is a good indication of how much blood the heart is pumping out. This should be felt in emergencies. However, we normally use the radial pulse (in the wrist) on a day-to-day basis.

Instructions:

- Find the radial pulse.
- Once the pulse has been found count the number of beats for one minute.
- During this time, you can also make additional observations about the rhythm (is it regular or irregular), strength (strong or weak) and the skin condition (dry, sweaty or clammy)

Tips:

- The radial pulse is found on the side of the wrist below the thumb.
- Use the tips of your fingers, this is easier if you have short nails.
- Don't use your thumb as you will also feel your own pulse.

Blood Pressure

What are we measuring?

As the heart ventricles pumps blood around the body is there is a change in the pressure exerted on a person's arteries as the heart contracts and then relaxes. The two numbers form your blood pressure value and are described as "130 over 90" or "130/90". The first number is the systolic pressure, the second is the diastolic pressure.

Systolic = The pressure the heart exerts to pump out blood

Diastolic = The pressure of your blood when the heart is relaxed.

Why are we measuring it?

Measuring blood pressure is an important way of telling how hard the heart is working at that moment in time and can give an idea of how at risk a person is of future diseases (strokes, heart failure etc.).

Normal blood pressure varies according to age, exercise and many other factors. But the average is about 120/70. Raised blood pressure is known as hypertension, and low blood pressure is hypotension.

How do we measure it?

We use a special machine to measure BP, called a sphygmomanometer. They can be automatic or manual –with the manual method being more accurate once experienced. It is measured in millimetres of mercury, or mmHg.

Instructions:

- Find the brachial pulse on the medial aspect (side closest to the body when the arm is facing forward) of the upper arm, just above the elbow.

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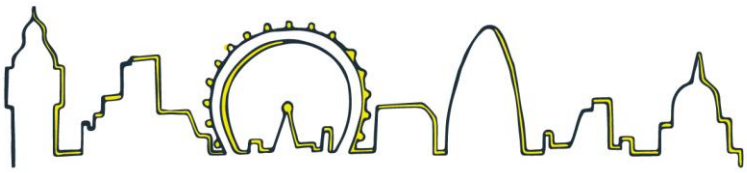
- Attach the inflatable cuff around the patient's arm, with the artery indicators lying over where you think the brachial artery is running. The tubing should come from the bottom of the cuff.
- Rest the patient's arm on a pillow, so they aren't holding it up. Tell them to relax and keep the arm floppy.
- Find the radial pulse on the lateral aspect (side furthest to the body when the arm is facing forward) of the wrist and keep two/three fingers on it.
- Inflate the cuff using the bulb at the end of one of the tubes and keep pumping until you can no longer feel the radial pulse. Check the number at this point and remember it!
- Deflate the cuff back to zero. Place a stethoscope over the area you found the brachial pulse and begin to inflate the cuff again. Don't feel for the radial pulse now.
- Keep pumping until the number is now 20 above the number you remembered from before.
- Slowly let the air out of the cuff, whilst listening (hard!) to the stethoscope. You need to listen for a regular tapping sound, and note the number when you first heard this, and when you stop hearing it. Letting down the cuff at a rate of around 2mm/sec is best.
- If you aren't sure of a number, reflate the cuff a little bit to try and isolate the sound.

Tips:

- It can be very quiet and hard to hear – so keep quiet and try again.
- Don't over inflate the cuff –it can be very painful when pushed too far.
- Don't hold the stethoscope with your thumb – you may hear your own pulse.



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Respiration

What are we measuring?

The respiration rate is the number of breaths a person takes per minute. The rate is usually measured when a person is at rest and simply involves counting the number of breaths for one minute by watching and counting how many times the chest rises.

Why are we measuring it?

Respiration rates may increase with fever, illness, and with other medical conditions. When checking respiration, it is important to also note whether a person has any difficulty breathing.

Normal respiration rates for an adult person at rest range from 12 to 16 breaths per minute.

How do we measure it?

- Make sure the person is as relaxed as possible.
- Observe if they are distressed in any way.
- It is best to monitor and record the respirations immediately after taking the pulse; this will aid in a more accurate recording, as the person will not be aware that you are observing respirations. Awareness that respirations are being recorded can make people alter their breathing.
- Observe the rise and fall of the chest (inspiration and expiration) – this count as one breath.
- The respirations should be counted for a full minute in order to have an accurate recording.
- Note the pattern of breathing and the depth of the breaths.

Tips

- When observing the respiratory rate, it is important to note the colour of the patient's lips.

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- They may be cyanosed (blue) or discoloured if the patient has respiratory problems.
- Cyanosis can also be observed in the nail bed, tip of the nose and ear lobes

Learning Disability Nursing

Learning disability nurses help people of all ages with learning disabilities to maintain their health and wellbeing, and to live their lives as fully and independently as possible.

Learning disability nurses offer help, support and guidance to families, carers and friends. They work closely and collaboratively with other health, social work and educational professionals, and all members of the learning disability care team.

Many nurses work in local community services where a lot of care is provided. There are also many opportunities to work in hospitals, or residential, educational and specialist services.

Communication

Introduction should include information that over 80% of people with a learning disability have communication difficulties.

Non-verbal expressive communication

In a small group, 1 person is given a symptom they need to "tell" the nurse i.e. "my head hurts", however as they are unable to communicate this verbally, they should do this using gesture (BSL or Makaton Signs if known). Key signs should be available to help e.g. pain, sleep.

Augmented receptive communication

In a small group, 1 person is given a treatment they need to tell the patient about i.e. "you need to have an x-ray", however they need to supplement the key message with visual cues to support their verbal communication. Pictures / symbols should be made available e.g. tablets, bandage, scan. The nurse should be reminded that they should speak whilst pointing to the visual cue and chose the most important element to emphasise.

Reasonable adjustments

Introduction should include that under the Equality Act 2010, people with learning disabilities (amongst others) should be offered reasonable adjustments to enable them to access public services, this is not just about physical access like ramps.

What's Reasonable

A scenario will be given to each group explaining the specific difficulties the person has when accessing a health appointment as well as some information about the appointment planned. They should think about what adjustments are reasonable.

Mental Health Nursing

Mental Health nurses support people with mental ill health, such as anxiety, depression, personality disorders, eating disorders, drug and alcohol addiction. They aim to build good relationships with service users and their families, to support the therapy process.

Mental Health nurses assess, plan, coordinate and manage care, while working closely with other health and social care professionals plus members of the care team. Many mental health nurses work in local community services where most care is provided. There are also opportunities to work in hospitals as well as residential and specialist services.

Mental Health illness awareness

Print off illustrations of common mental health illnesses along with the diagnosis on separate pieces of paper/laminated card. In groups of 4-6 ask the group to match the illustration to the diagnosis. As they get each one right, talk through the illnesses in more detail, treatment plan and the role of the mental health nurse in both hospital/community settings.

Mental state examination (MSE)

In order for mental health practitioners to comment on an individual's mental state we complete an assessment. A mental state examination is a clinical assessment process in psychiatric practice and is a structured way of observing and describing a patient's state of mind. The MSE is documented under the following domains:

- Appearance and Behaviour
- Speech
- Mood
- Thought content
- Perception and beliefs
- Cognition
- Protective factors
- Insight
- Impression
- Plan

Work with your supervisor to discuss and explore what the domains mean and why they are relevant. Once you are confident that you know what they mean use active listening skills to identify the domains discussed during an MSE assessment with your supervisor and a service user.

Paediatric Nursing

Paediatrics is the area of medicine and healthcare that looks after children from birth to 16 years and in some cases, up to 18 years of age. Paediatrics is split into 3 areas: neonates, children and adolescents.

- Neonate describes the age from birth to 28 days.
- Children are described as up to the age of puberty and includes babies, toddlers, and children of school age.
- Adolescents is puberty onwards sometimes referred to as ‘young adults’.

The following examples are some of the simple physical health observations your student can observe while in the work experience placement or in simulation:

Temperature

What are we measuring?

The temperature range for a child is the same as an adult. Normal body temperature can range from 36.5ºC (degrees Celsius) to 37.2º C for a healthy child. Temperature is an important indicator of ill health.

Why are we measuring it?

A lower than normal temperature below 35 degrees Celsius is known as hypothermic
A higher than normal temperature 38 degrees Celsius and above is known as pyrexia. This could indicate an infection or that the child has too many clothes and blankets on!

How do we measure it?

- A child's temperature can be taken in any of the following ways:
- Orally. Temperature can be taken by mouth using either the classic glass thermometer, or the more modern digital thermometers that use an electronic probe to measure body temperature (this can only be used in children that can cooperate with the process and do not bite the thermometer!).
- Axillary. Temperatures can be taken under the arm using a glass or digital thermometer.
- By ear. A special thermometer can quickly measure the temperature of the ear drum, which reflects the body's core temperature (the temperature of the internal organs).
- By skin. A special thermometer can quickly measure the temperature of the skin on the forehead.

Tympanic Thermometer

- Explain to the child what you want to do.
- Take the thermometer out of its holder.
- Put a new, throw-away cover over the tip of the thermometer.

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- Ask the child not to move their head, you may have to be quick!
- Gently pull the ear up and then back.
- Put the covered tip into the ear opening. Do not use force or push hard. The thermometer tip should not touch the ear drum.
- Press the button to turn on the thermometer.
- Hold the button until the thermometer beeps or follow the instructions for your thermometer.
- Remove the thermometer from the ear opening.
- The temperature will show up in the "window".
- Remove and discard the throw-away cover.
- Place the thermometer back into the holder.
- Now wash your hands.
- Record the reading that has been taken straight away.

Blood Pressure

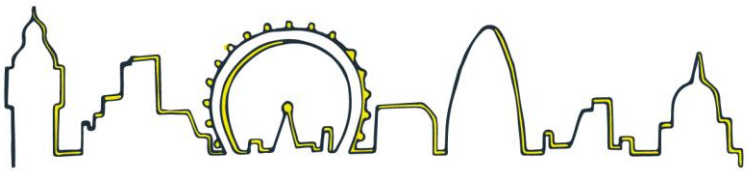
What are we measuring?

As the heart ventricles pumps blood around the body is there is a change in the pressure exerted on the arteries as the heart contracts and then relaxes. The two numbers form your blood pressure value and are described as 90 over 60 or 90/60. The first number is the systolic pressure, the second is the diastolic pressure.

Systolic = The pressure the heart exerts to pump out blood

Diastolic = The pressure of your blood when the heart is relaxed

As **kids** grow, their **blood pressure** increases from a systolic **pressure** of about 70–90 (as babies) to adult values (when they're teens).



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Paediatric Vital Signs Reference Chart

Normal Blood Pressure by Age (mm Hg) Reference: PALS Guidelines, 2015

Age	Systolic Pressure	Diastolic Pressure
Pre-school (3-5 y)	89-112	46-72
School-age (6-9 y)	97-115	57-76
Preadolescent (10-11 y)	102-120	61-80

Why are we measuring it?

Measuring blood pressure is an important way of telling how hard the heart is working. Normal blood pressure varies according to the age of the child.

How do we measure it?

We use a special machine to measure BP, called a sphygmomanometer. They can be automatic or manual. It is important when recording blood pressure in children to use the correct size cuff.

Instructions:

- Explain to the child what you intend to do.
- Find the brachial pulse on the medial (inner) aspect of the upper arm, just above the elbow.
- Attach the inflatable cuff around the child's arm, with the artery indicators lying over where you think the brachial artery is running. The tubing should come from the bottom of the cuff.
- Rest the child's arm, so they aren't holding it up. Tell them to relax and keep the arm floppy. Explain that the cuff is going to squeeze their arm tight.
- Find the radial pulse on the lateral (outer) aspect of the wrist and keep two/three fingers on it.
- Inflate the cuff using the bulb at the end of one of the tubes and keep pumping until you can no longer feel the radial pulse. Check the number at this point and remember it.

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- Deflate the cuff back to zero. Place a stethoscope over the area you found the brachial pulse and begin to inflate the cuff again. Don't feel for the radial pulse now.
- Keep pumping until the number is now 20 above the number you remembered from before.
- Slowly let the air out of the cuff, whilst listening (hard) to the stethoscope. You need to listen for a regular tapping sound, and note the number when you first heard this, and when you stop hearing it. Letting down the cuff at a rate of around 2mm/sec is best.
- If you aren't sure of a number, reflate the cuff a little bit to try and isolate the sound.

Pulse/Heart Rate

What are we measuring?

The ventricles of the heart are responsible for pumping oxygenated blood around the body in arteries. The number of times the heart pumps is measured in beats per minute and is called the heart rate. This rate is generally measured at a pulse point which is where an artery lies close to the surface.

Why are we measuring it?

Measuring a child's pulse tell us how fast the heart is beating. Normal heart rate in children is:

Children 1 to 2 years old: 80 to 130 **beats** per minute.

Children 3 to 4 years old: 80 to 120 **beats** per minute.

Children 5 to 6 years old: 75 to 115 **beats** per minute.

Children 7 to 9 years old: 70 to 110 **beats** per minute.

A child's heart rate is measured regularly and recorded so that any changes can be detected. It is recorded on a chart called PEWS (Paediatric early warning score). This is designed to alert the nurse of a child whose condition is changing and or deteriorating.

How do we measure it?

The carotid pulse (in the neck) is the most important. This is the pulse that is felt for in emergencies. Normally, this is the radial pulse (near the wrist).

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You could try feeling your own pulse. Lightly place your pointing finder on your wrist just above your thumb. Can you feel it? What is your pulse rate? (the number of beats per minute).

Instructions:

- Find the radial pulse.
- Once the pulse has been found, count the number of beats for one minute.
- During this time, you can also make additional observations about the rhythm (is it regular or irregular), strength (strong or weak) and the skin condition (dry, sweaty or clammy).

Tips:

- The radial pulse is found on the side of the wrist below the thumb
- Use the tips of your fingers, this is easier if you have short nails
- Don't use your thumb as you will also feel your own pulse

Respiration

What are we measuring?

The respiration rate is the number of breaths a child takes per minute. The rate is usually measured when a child is at rest and simply involves counting the number of breaths for one minute by counting how many times the chest rises.

Why are we measuring it?

Respiration rates may increase with fever, illness, and with other medical conditions. When checking respiration, it is important to also note whether a child has any difficulty breathing.

Normal respiration rates for children at rest range from:

The normal ranges of respiratory rates for children of different ages include:

New-born: 30-60 breaths per minute.

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Infant (1 to 12 months): 30-60 breaths per minute.

Toddler (1-2 years): 24-40 breaths per

How do we measure it?

- Make sure the child is as relaxed as possible
- Observe if they are distressed in any way
- It is best to monitor and record the respirations immediately after taking the pulse; this will aid in a more accurate recording, as the child will not be aware that you are observing respirations. Awareness that respirations are being recorded can make children that are old enough to realise, alter their breathing
- Observe the rise and fall of the chest (inspiration and expiration) - these count as one breath
- The respirations should be counted for a full minute in order to have an accurate recording
- Note the pattern of breathing and the depth of the breaths

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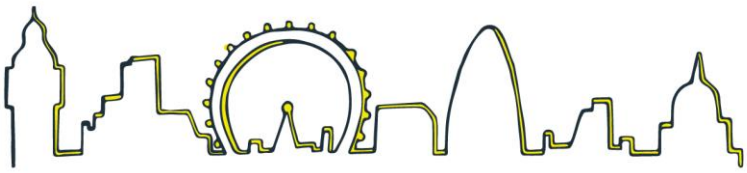

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