Unit 16: Point-of-care Testing

Level: 4

Unit type: Optional (General Healthcare Science)

Credit value: 5

Guided learning hours: 40

Unit summary

This unit gives you a foundation on which to build your knowledge, skills, experience, and attitudes while undertaking point-of-care testing in a range of settings, which could include a hospital bedside, primary care facilities, the home, a workplace etc. You are required to demonstrate appropriate attitudes and behaviours and integrate your learning as you develop your professional practice.

Unit assessment requirements

There are no specific assessment requirements for this unit. Please refer to the assessment strategy in *Annexe B*.

Additional information

Whilst this unit has been developed for the Pearson BTEC Level 4 Diploma in Healthcare Science, the knowledge and skills it covers are relevant to any healthcare profession that includes undertaking point-of-care testing. Examples of diagnostic investigations that might be used at the point of care include:

Cardiovascular risk assessment:

- blood pressure measurement
- measurement of height, weight, waist-hip ratio etc.
- measurement of lipids
- urine testing.

Chronic disease monitoring:

- blood pressure measurement
- measurement of height, weight, waist-hip ratio etc.
- measurement of lipids, fasting glucose, HbA1c
- spirometry.

Sexual health clinics/genitourinary medicine:

- rapid HIV testing
- nucleic acid amplification tests for chlamydia trachomatis and Neisseria gonorrhoeae

- detecting, managing, and monitoring haemostasis and determining whether bleeding is a result of coagulopathies
- monitoring individuals in acute settings, e.g., intensive care units, operating theatres.

All procedures must be undertaken in accordance with the Standard Operating Procedure (SOP).

AC1.1 should include the perspectives of the service provider and individual.

Advantages:

- bringing the test conveniently and immediately to the individual
- results are available more quickly, enabling clinicians to support the timely diagnosis, monitoring and treatment of individuals
- testing has been shown to:
    - reduce the length of a hospital stay
    - improve adherence to treatment
    - reduce complications.
- opportunities to undertake opportunistic screening, including individuals who have traditionally been difficult to reach, e.g., people with mental health issues, people with physical disabilities.
- testing is effective only if action is taken on the result.

Disadvantages that directly affect individual's results and care include the following:

- point-of-care testing requires trained operators to ensure a good quality service
- poor quality of analysis
- poor record keeping
- lack of report interpretation
- failure to detect abnormal results
- unauthorised processing
- inappropriate testing
- result quality is often directly related to sample quality; a poor sample or incorrect analytical techniques will yield poor results.

AC1.4 includes:

- calibration and quality measures (IQC and EQA) underpinning point-of-care testing.

AC2.2 includes:

- communicating effectively with the individual/carer
- explaining the procedure/s to the individual
- gaining and documenting informed consent.

AC2.4 – the results from **two** clinical presentations should be discussed.

Learning outcomes and assessment criteria

To pass this unit, learners need to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Understand the advantages and disadvantages of point-of-care testing	1.1	Describe different examples of diagnostic investigations that might be used at the point of care			
		1.2	Explain the use of innovative technology for point-of-care testing and the potential benefits this brings			
		1.3	Explain the advantages and disadvantages of point-of-care testing			
		1.4	Explain how quality standards can be maintained for point-of-care testing			
		1.5	Explain the procedure for reporting and responding to problems identified with point-of-care equipment			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to perform routine point-of-care testing as appropriate to own area of work	2.1	Explain the principles and practice of quality control, external quality assessment and quality management that underpin point-of-care testing in own area of work			
		2.2	Perform routine point-of-care testing to required quality standards			
		2.3	Discuss the result with the patient, completing all required documentation			
		2.4	Discuss the results obtained from point-of-care testing in the context of clinical presentations in own area of work			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(*if sampled*)