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Unit 4 Health, Safety and Security in the Healthcare Science Environment

Introduction

In this unit you will develop the knowledge and skills to be able to establish and consistently maintain a safe and secure healthcare science environment, drawing on the knowledge, skills, attitudes and behaviours required for safe and effective practice. This unit includes some of the core knowledge and skills required to meet the Level 4 apprenticeship standard.

Forms of evidence required

For each unit or part unit the learning outcomes and assessment criteria are presented first, followed by statements as to what the learner must do, and suggestions for completing the work. The suggestions are not prescriptive, and learners can provide additional or alternative evidence, so long as it meets the assessment criteria.

The course work requires the following forms of evidence:

- Written accounts in the form of assignments and reports of projects.
- Presentations in PowerPoint or Keynote. These should be around 10 - 15 minutes long and recorded if possible. Depending on work circumstances and opportunities, they can be presented at meetings, or to the mentor, supervisor or manager. If presented to others, the date, circumstance and those present (initials and job titles only) should be described, along with the learner's reflection on the presentation.
- Reflective accounts. These can include reflections on your study or work experience that you have recorded in your reflective diary.
- Logs of work activities. These should include dates, the context of the activity, and reflection on the activity that you have documented in your reflective journal.
- Witness statements. A proforma for witness statements can be found in Appendix A.
- Direct observation in the workplace and oral questioning. Mandatory units include generic elements such as effective communication, consent, confidentiality and infection control that are part of the Direct Observation of Practical / Procedural Skills (DOPS). DOPS are used for the assessment of competence units, but evidence from these can be linked to the mandatory units. A DOPS template can be found in Appendix B.

Submission of evidence

All course work is submitted in the eportfolio. Candidates should not submit work for final assessment until it is complete and to the appropriate standard for the task. Assessors will provide written feedback to candidates regarding their course work.

Learners will normally have two opportunities to submit each item of course work. Learners who fail any task should not resubmit work within one week of receiving their result. Assessors must provide precise written feedback and where necessary, further learning opportunities to maximise the candidate's potential to succeed on their second attempt.

Grading and marking

A **Marking Template** can be found in Appendix C. Course work for the mandatory units is graded as good, satisfactory or unsatisfactory. The good and satisfactory grades are *indicative only* to give you some feedback on the overall quality of your work. Your work is marked as Pass/Action required, thus the highest mark is a **pass**.

What the results mean:

Pass: is achieved when all the assessment criteria are met and the work is graded as good or satisfactory.

Action required: You can resubmit your work after addressing the issues raised in the feedback. If following resubmission, your work remains unsatisfactory, your assessor will seek advice from the internal verifier.

How to use this guide

The work that you need to do is outlined in the **Assessment Guidance** tables highlighted in blue, e.g.

Assessment Criteria	Assessment criteria guidance
7.1 – 7.4	<p>Resources: Technical Scientific Services eBook Chapter 2 Section 2.2</p> <p>For ACs 7.1 and 7.2 write a report of between 250 and 500 words explaining the approach to risk management in own organisation and department and discuss your own role and responsibilities for risk assessment</p> <p>For ACs 7.3 and 7.4 you should perform at least one risk assessment, develop an action plan to reduce the risk, and monitor the effectiveness of the plan. You should seek advice as required and write a report of this activity, which should be confirmed with a witness statement.</p>

The Assessment Guidance is also included in the Assessment Plans in the yellow pages of the Ecordia eportfolio, and can also be found in the dark blue boxes in the eBooks. You may want to print out the assessment guide, or have the assessment guide on your iPad while you work on your computer, or just use the eportfolio. Do whichever works best for you.

The eBooks have been written to give you the information you need to complete the course work, so read through the relevant sections as you work through the assessment criteria.

The word counts are for *guidance only*. So long as you have covered the work that is required, you will not be penalised if you have used more or less words.

If you have any queries about what to do, please contact your assessor for guidance.

Learning outcomes and assessment criteria

Unit 4 Health, Safety and Security in the Healthcare Science Environment	
Learning outcomes	Assessment criteria
1. Be able to maintain a safe, secure and healthy working environment, working within regulations, legislation and codes of practice	1.1 Discuss the wider context of safety in the NHS, including how the culture of an organisation influences safety 1.2 Apply current regulations with respect to service user safety and safe systems within own area of work 1.3 Know the role of the Health and Safety Executive in patient and service user incident investigation
2. Be able to use equipment safely in the healthcare science work environment	2.1 Explain the regulations and current procedures governing the use of equipment found in own work setting 2.2 Assess the risks and implications of using defective equipment in own area of practice 2.3 Demonstrate use of relevant equipment within manufacturer's guidelines and relevant protocols and procedures 2.4 Take remedial action for common equipment faults in line with own organisation's policy 2.5 Select appropriate personal protective equipment and use it correctly
3. Be able to control infection risks in accordance with departmental protocols	3.1 Explain organisational guidelines and protocols for hygiene and infection control 3.2 Apply own organisation's protocols for hygiene and infection control in own area of practice
4. Understand the need to maintain a safe, secure and healthy working environment	4.1 Explain the importance of health, safety and security in own area of work 4.2 Explain the actions that may be taken to manage risks and improve patient safety in healthcare settings 4.3 Explain the critical incident reporting process in own area of practice 4.4 Discuss the importance of promoting a no-blame culture 4.5 Explain approaches to procedures for identifying and reporting critical incidents in own organisation 4.6 Explain procedure for receiving and responding to complaints in own organisation 4.7 Identify two recent critical incidents and analyse the incident including cause and agreed actions

Assessment criteria guidance

Assessment Criteria	Assessment criteria guidance
1.1 – 1.3	<p>Resources: Technical Scientific Services eBook Chapter 3 NHS England Health and Safety Policy</p> <p>For ACs 1.1 – 1.3 you should prepare an assignment of between 500 and 1,000 words.</p> <ul style="list-style-type: none"> • For AC 1.1 discuss the wider context of safety in the NHS, for example the role of NHS England. Discuss how the culture of an organisation can promote health and safety, for example how effective communication underpins high-quality and safe patient services/patient care, including shared decision making; explain how the legal responsibilities for health and safety and duty of care of employers and employees contribute to safe practice; how current health and safety legislation and regulations impact on the healthcare science work environment. • For AC 1.3 describe the role of the Health and Safety Executive and other regulatory authorities in service user incident investigation. You should mention relevant health and safety legislation, departmental guidelines and organisational regulations, including requirements of the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR). • For AC 1.2 describe how health and safety is implemented in own workplace, mentioning local / departmental policies and demonstrate how you apply current regulations with respect to service user safety and safe systems within own area of work, to include electrical and laser safety. You should include at least two witness statements from relevant practitioners in your workplace, which give evidence of having: <ul style="list-style-type: none"> ○ applied current regulations with respect to service user safety and safe systems on at least one occasion ○ carried out own work responsibilities in line with government legislation and organisational health and safety guidelines on at least one occasion <p>You should verify this in the form of a reflective account.</p>
2.1 – 2.5	<p>Resources: Technical Scientific Services eBook Chapter 4</p> <p>For ACs 2.1 and 2.2 you should deliver a presentation on relevant regulations and procedures for use of equipment, referring to at least two regulations and at least two procedures. The evidence must include an assessment of the risks and implications of using defective equipment.</p> <p>For ACs 2.3 and 2.4 you should provide evidence, in the form of witness statements and reflective accounts, of having used relevant equipment according to guidelines, protocols and procedures on at least two occasions and having taken remedial action for at least one common equipment fault.</p> <p>For AC 2.5 you should select appropriate personal protective equipment and use it correctly if that is part of your work role. This can include wearing sterile or protective gloves, aprons and masks. Alternatively you could identify protective glasses worn for different types of laser. This should be confirmed with a witness statement.</p>
3.1 – 3.2 (These are included in	<p>Resources: Technical Scientific Services eBook Chapter 5</p> <p>This LO 3 and LO 4 of Unit 5 Technical Scientific Services cover similar areas. To avoid reduplication of work, we have included Unit 4 ACs 4.2 – 4.3 here and your work will be linked to both units.</p>

<p>Unit 5 LO4)</p>	<p>For ACs 3.1 and Unit 5 ACs 4.2 and 4.3 you should write an assignment of between 250 and 500 words explaining organisational guidelines and protocols for hygiene and infection control, the importance of equipment decontamination, and the procedures you use in your workplace. The report should include reference to at least two guidelines and at least two protocols.</p> <p>For AC 3.2 you must also present evidence of having applied at least two protocols within your own clinical practice on at least two occasions. The evidence should be in the form of witness statements from supervisors. You will also be observed implementing protocols for hygiene and infection control during Direct Observation of Practical/Procedural Skills (DOPS) that can be linked here.</p>
<p>4.1 (ACs 4.2 – 4.7 are included in Unit 5 LO7)</p>	<p>Resources: Technical Scientific Services eBook Chapter 3</p> <p>This LO 4 and LO 7 of Unit 5 Technical Scientific Services cover similar areas: This LO 4 is concerned with risks to employees that comes under the remit of health and safety legislation, and Unit 5 LO 7 is concerned with clinical risks to patients and the organisation. To avoid reduplication of work, we have included Unit 4 ACs 4.2 – 4.7 in Unit 5 ACs 7.1 – 7.4 and your work will be linked to both units.</p> <p>Prepare an assignment of around 500 to 1,000 words about risk management in your organisation and department.</p> <ul style="list-style-type: none"> • For Unit 4 AC 4.1 you should explain the importance of health, safety and security in own area of work and the actions that may be taken to manage risks and improve the safety of employees in healthcare settings. • For Unit 4 ACs 4.2 – 4.7 and Unit 5 AC 7.1 and 7.2 explain the approach to risk management in own organisation and department. You should describe the actions that may be taken to manage risks and improve patient safety in healthcare settings. This should include categorisation and reporting of near misses and clinical incidents; analysis of near misses and clinical incidents; definition of terms ‘never events’ and ‘serious untoward incidents’; strategies and action plans to reduce never events and serious untoward incidents. You should also discuss the importance of promoting a no-blame culture (Unit 4 AC 4.4). <i>This is also a requirement in Unit 8 Leadership and Teamwork AC 3.6 Explain how to promote a ‘no-blame culture’ within a team, and is discussed in Section 2.3 pages 107 – 108 in the eBook Effective Communication, Leadership and Teamwork.</i> • Discuss your own role and responsibilities for risk assessment (Unit 4 AC 4.3 and Unit 5 AC 7.2). You should explain procedures for identifying and reporting critical incidents in own organisation (Unit 4 AC 4.5). You should keep a log of incidents, near misses and risk assessment and management activities that you have carried out in your own work role, and present a reflective account in which you identify and analyse two recent critical incidents, including cause and agreed action (Unit 4 AC 4.7). • You should describe your organisation’s procedure for receiving and responding to complaints in own organisation (Unit 4 AC 4.6) <p>For ACs 7.3 and 7.4 you should describe how you performed at least one risk assessment, developed an action plan to reduce the risk, and monitored the effectiveness of the plan. This should be confirmed with a witness statement.</p>

APPENDIX A

Witness statement

A witness statement is used to provide a written record of learner performance against targeted assessment criteria. Someone other than the assessor of the qualification/unit may complete it. This may be an assessor of a different qualification or unit, a work placement supervisor, a technician, learning resources manager or anyone else who has witnessed the performance of the learner against given assessment criteria. It can be someone who does not have direct knowledge of the qualification, unit or evidence requirements as a whole, but who is able to make a professional judgement about the performance of the learner in the given situation.

The quality of witness statement is greatly improved, and enables the assessor to judge the standard and validity of performance against the assessment criteria, if:

- the witness is provided with clear guidance on the desirable characteristics required for successful performance
- the evidence requirements are present on the witness testimony (this may need further clarification for a non-assessor)
- the learner or witness also provides a statement of the context within which the evidence is set.

Please note:

A witness statement is a source of evidence and **does not** confer an assessment decision. The assessor must:

- consider all the information in the witness statement
- note the relevant professional skills of the witness to make a judgement of performance
- review supporting evidence when making an assessment decision
- review the statement with the learner to enable a greater degree of confidence in the evidence
- be convinced that the evidence presented by the witness statement is valid, sufficient and authentic.

When a number of witnesses are providing testimonies:

- it may be helpful to collect specimen signatures
- all witness testimonies should be signed and dated by the witness
- information of their job role/relationship with the learner should also be recorded.

These details add to the validity and authenticity of the testimony and the statements made in it.

APPENDIX A continued

WITNESS STATEMENT

Learner name:			
Qualification:			
Unit number & title:			
Description of activity undertaken (please be as specific as possible)			
Assessment criteria (for which the activity provides evidence)			
How the activity covers the requirements of the assessment criteria, including how and where the activity took place (this does not confirm achievement of assessment criteria or confer an assessment decision)			
Witness name:		Job role:	
Witness signature:		Date:	
Learner name:			
Learner signature:		Date:	
Assessor name:			
Assessor signature:		Date:	

APPENDIX B

Direct Observation of Practical/Procedural Skills Template

Trainee name:	ID confirmed: yes / no
Assessed by (name):	Job title or Professional role:
assessor / mentor / trainer / other (circle)	If other, please state

Unit title:					
Procedure / NOS:					
Prerequisite units completed:		yes / no	If no, reason:		
Number of times procedure performed by trainee (excluding assessments) (please circle):		1 - 4	5 - 9	10 - 20	>20
Formative assessment No.: (consecutive numbering of assessments)		Summative assessment No.: (consecutive numbering of assessments)			

Scope / range of test / procedure: (as specified e.g. adult / child, vision impairment, communication difficulty, ocular condition etc.)
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	The trainee should be able to:	C/NYC*	Comments
Preparation	Establish professional relationship with patient, identifying and addressing any special needs, analysing patient needs and maintaining patient confidentially.		
	Minimise risks and hazards including the control of infection in accordance with Health and Safety policies.		
	Ensure that all the required equipment is working correctly and safely.		
	Use effective communication skills within the healthcare environment adapting communication style and language to meet the needs of the listener.		
	Review a referral letter, retrieve the medical notes, greet patient, identify self, and check patient ID.		
	Explain the procedure to the patient and gain informed consent.		
Performance	List elements of procedure to be assessed		
Documentation	Accurately record all information, and sign, date, and state position held.		
Further action	Notify the appropriate member of the multidisciplinary team if unexpected or clinically significant information, and record actions in patient record.		
Professionalism	Reflect on and document practice and commitment to continuing professional development.		
	Keep professional, technical and scientific knowledge and skills up to date.		
	Plan and prioritise commitments and goals using a range of organisation and planning tools.		
	Comply with relevant guidance and laws to include those relating to <ul style="list-style-type: none"> - Your scope of practice - Research Ethics and Governance - Patient Confidentiality 		

	<ul style="list-style-type: none"> - Data Protection - Equality and Diversity - Use of Chaperones - Informed Consent 		
	Work constructively and effectively as a member of a multi-disciplinary team.		

***C = Competent NYC = Not Yet Competent**

Please grade the following areas using the scale below	Below expectations	Borderline	Meets expectations	Above expectations	Unable to comment. ¹
1. Understands scientific principles of procedure including underpinning basic science					
2. Has read, understands and follows the appropriate SOP's, risk and COSHH assessments, and any other relevant health and safety documentation					
3. Understands and applies the appropriate internal and external quality control associated with the procedure					
4. Understands the risks associated with items of equipment and uses them appropriately					
5. Accurately completes associated documentation					
6. Output meets accepted laboratory/professional standards					
7. Carries out the procedure within appropriate time frame					
8. Is aware of the limitations of the test					
9. Demonstrates awareness of the limits of responsibility and when to seek advice					
10. Professionalism					

¹ Please mark this if you have not observed the behaviour

FEEDBACK AND DOCUMENTATION OF LEARNING NEEDS	AGREED ACTION

Oral Questioning

	Question	Response	Comments
1			
2			
3	etc.		

Outcome	Satisfactory Unsatisfactory	Date of assessment		Time taken for assessment:	
Signature of Assessor		Signature of Trainee		Time taken for feedback:	

APPENDIX C

Marking Template for assignments and presentations graded as competent / action required

	Good	Satisfactory	Unsatisfactory	Comments
Structure and presentation				
Uses own words except when quoting – <i>authenticity</i>				
Meets assessment criteria – <i>validity and sufficiency</i>				
Citation and referencing				
Relates knowledge and understanding to own practice				
Demonstrates self-awareness and reflection				
Evidence from current practice (2-3 years) - <i>currency</i>	Yes / No			
Overall Comments				
Outcome	PASS		ACTION REQUIRED	

The good and satisfactory grades are *indicative only* to give feedback on the overall quality of the work. Work is marked as Pass/Action required, thus the highest grade is a **pass**.

What the results mean:

Pass: is achieved when all the assessment criteria are met and the work is graded as good or satisfactory.

Action required: Work can be resubmitted after the issues raised in the feedback have been addressed. If following resubmission, the work remains unsatisfactory, the assessor will seek advice from the internal verifier.