

Qualification Specification

QNUK Level 3 Award in Administration of Emergency Medical Gases (RQF)

603/2077/1

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Qualifications Network Limited (QNUK) is an Awarding Organisation recognised and regulated by the Office of Qualifications and Examinations (Ofqual) in England, the Council for Curriculum, Examinations and Assessment (CCEA) in Northern Ireland and Qualifications Wales.

This specification outlines key information required by users of the qualification to ensure they can make an informed decision about the suitability of the qualification they are taking or proposing to take for the purposes that they intend to use it.

2. Contact Us

Please get in touch if you need any advice or guidance with this qualification.

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3. Version Number

Centres should make sure they are using the most up to date document by checking the footer which will confirm the current version number.

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4. Qualification Objective

This qualification is aimed at those working in health care settings who are required to administer Oxygen and Entonox® as part of their role. This includes, but is not limited to, pre-hospital care providers. This is not a Licence to Practice qualification and employers should ensure they have full and rigorous Clinical Governance in place to be able to allow employees to administer medical gasses. This qualification has the purpose of supporting a role in the workplace.

5. Geographical Coverage of this Qualification

This qualification is available in England.

6. Benefit for Learners

This qualification will develop knowledge and ability to deliver emergency medical gases in a pre-hospital situation enabling learners to support and preserve life where possible.

7. Progression

Learners could progress onto Pre-hospital care qualifications.

8. Recognition of Prior Learning

QNUK are unable to accept requests for recognition of prior learning (RPL) for this qualification.

9. Complementary Courses

This qualification does not directly link with other qualifications, however, may be used as a “bolt-on” to pre-hospital qualifications.

This qualification will complement other pre-hospital care qualifications, providing the learner with additional skills and knowledge to enhance their employability.

10. Qualification Information

Qualification Number (QN)	603/2077/1
Learning Aim	60320771
Total Qualification Time (TQT)	8
Guided Learning Hours (GLH)	6
Credit value	1
Level	3
Validity	It is recommended that this qualification is refreshed annually
Assessment	Invigilated MCQ paper and observed practical tasks
Achieving the qualification	Learners must achieve the mandatory unit

11. Qualification Structure

Unit No.	Unit Title	Level	Credit	GLH
Mandatory units				
Y/616/0091	Administering Emergency Medical Gases	3	1	6

The learning outcomes for the qualification may be found in Appendix 1. The Assessment Guidance details the assessment criteria which are used to determine if a learner has met the requirements of the learning outcomes. Further depth of coverage is also provided in the Assessment Guidance.

12. Learner Entry Requirements

Candidates should be at least 18 years old to undertake this qualification.

Candidates should have suitable First Aid or Medical qualifications. A minimum would be a Valid First Aid at work qualification or 2-day Outdoor first aid qualification such as the QNUK Level 3 Award in Outdoor First aid (RQF).

Learners must have sufficient command of the English language, recommended at least level 2 Literacy, to understand and undertake the recommended assessment methods for this qualification.

There are no other pre-requisites for this qualification. However, learners should be able to work at level 2 and above.

13. Delivery

This qualification is typically delivered in a face-to-face format over a two-day period. Learners should complete the qualification within 6 weeks.

13.1. Venue Requirements

The training venue should be suitable for learning and meet all relevant Health and Safety requirements.

13.2. Equipment Requirements

Each centre offering this qualification should ensure the following are available:

- Resuscitation manikins – 1 per 4 candidates
- Resuscitation cleaning materials, for example manikin wipes
- AED training units - 1 per 4 candidates
- A range of Oximeters, 1 oximeter per 4 candidates
- Oxygen cylinder – 1 per 4 candidates. CD and/or D sized
- Range of oxygen delivery devices (1 per 4 candidates) including:
 - 100% mask,
 - 28% mask,
 - simple face mask
 - nasal cannulae
 - bag valve mask
 - pocket mask with oxygen port
- Entonox Cylinder and associated equipment - 1 per 4 candidates
- Template reporting documentation.

13.3. Blended Learning

Blended learning is acceptable for this qualification provided suitable controls are in place to ensure learners complete all elements.

Much of the qualification is based on developing practical skills and using equipment which is not commonly available outside of the learning environment; therefore, learners will undertake some face-to-face learning. All practical assessments must be taken in the physical presence of the assessor.

13.4. Trainer to Learner Ratio

The maximum Trainer to learner ratio for this qualification is 1:12

14. Centre Personnel Requirements

This qualification is delivered by suitably qualified trainers.

All those who deliver and assess this qualification must hold:

1. Current registration as a Doctor with the General Medical Council (GMC); or
2. Current registration as a Nurse with the Nursing and Midwifery Council (NMC); or
3. Current registration as a Paramedic with the Health and Care Professions Council (HCPC); or
4. Additional medical related qualifications include:
 - a. Ambulance technician (IHCD)
 - b. Combat medical technician class 1 (Army)
 - c. Lead medical assistant (Navy)
 - d. Medical Assistant (RAF)
 - e. Emergency care assistant (NHS)
 - f. Emergency Ambulance grade (VAS)
 - g. First Person on Scene Enhanced (IHCD/Pearson)
5. Where an “additional medical related qualification” is held, the trainer should also have completed recognised CPD training or a qualification in the administration of Emergency Medical Gases
6. Hold one of the following qualifications or their recognised equivalent:
 - a. Cert Ed/PGCE/B Ed/M Ed
 - b. CTLLS/DTLLS
 - c. PTLLS (12 credits)
 - d. Further and Adult Education Teacher’s Certificate
 - e. IHCD Instructional Methods
 - f. IHCD Instructor Certificate
 - g. S/NVQ level 3 in training and development
 - h. S/NVQ level 4 in training and development
 - i. TQFE (Teaching Qualification for Further Education)
 - j. English National Board 998
 - k. Nursing mentorship qualifications
 - l. NOCN Tutor Assessor Award
 - m. Level 3 Award in Education and Training (QCF/RQF)
 - n. Level 4 Certificate in Education and Training (QCF/RQF)
 - o. Level 5 Diploma in Education and Training (QCF/RQF)
7. If none of the above teaching/assessing qualifications are held, delivery staff must hold both a teaching qualification AND assessing qualification from the list below
 - a. Accredited Qualifications based on the Learning and Development NOS 7 Facilitate Individual Learning and Development (Teaching)

- A22, B22, C21, C23, C24 (Teaching)
- c. SQA Accredited Planning and Delivering Learning Sessions to Groups (Teaching)
- d. A1 (D32/33) – Assess candidates using a range of methods (Assessing)
- e. A2 (D32) – Assess candidates’ performance through observation (Assessing)
- f. Regulated Qualifications based on the Learning and Development NOS 9 Assess Learner Achievement (Assessing)
- g. SQA Accredited Learning and Development Unit 9DI – Assess workplace competences using direct and indirect methods – replacing Units A1 and D32/33 (Assessing)
- h. SQA Accredited Learning and Development Unit 9D - Assess workplace competence using direct methods – replacing Units A2 and D32 (Assessing)
- i. SQA Carryout the Assessment Process (Assessing)
- j. Level 3 Award in Assessing Competence in the Work Environment (QCF/RQF) (Assessing)
- k. Level 3 Award in Assessing Vocationally Related Achievement (QCF/RQF) (Assessing)
- l. Level 3 Award in Understanding the Principles and Practices of Assessment (QCF/RQF) (Assessing)
- m. Level 3 Certificate in Assessing Vocational Achievement (QCF/RQF) (Assessing)
- n. Assessor/IQA CPD Day (Assessing)

8. Show current evidence of continuing professional development in teaching, assessment and the subject matter.

Internal quality assurance requirements

Each centre must have access to a suitably qualified IQA. The IQA cannot verify the delivery or assessment of individual learners or cohorts of learners where the IQA has been involved in the delivery or assessment of the qualification for those learners.

All those who are involved with the quality assurance of this qualification **internally** must:

1. have up-to-date working knowledge and experience of best practice in assessment and quality assurance;
2. meet the delivery staff requirements for this qualification;
3. hold one of the following internal quality assurance qualifications or their recognised equivalent:
 - a. Level 4 Award in Internal Quality Assurance of Assessment Processes and Practice (QCF/RQF); or
 - b. Level 4 Certificate in Leading the Internal Quality Assurance of Assessment Processes and Practice (QCF/RQF); or
 - c. V1 Conduct internal quality assurance of the assessment process; or
 - d. D34 Internally verify the assessment process; and
4. show current evidence of continuing professional development in assessment, quality assurance and the subject matter.

15. Assessment Requirements

Learners are assessed for this qualification through:

15.1. Multiple-Choice Question Paper

The MCQ paper will be taken under examination conditions, i.e. learners will sit a minimum of 1.25 metres apart, will not confer during the examination and no electronic devices (such as mobile phones) or books, including dictionaries, will be permitted.

Language of assessment	English
Duration	30 minutes
Pass mark	70% (11/15)
Grading	Pass/Fail

Example MCQs are included at Appendix 2.

15.2. Practical Tasks

Learners are required to demonstrate the safe use of emergency medical gases as they would in an emergency situation, therefore, they will need to be able to work on the floor, for example, as with CPR.

Language of assessment	English
Duration	As required
Pass mark	100%
Grading	Pass / Fail

16. Moderation

The level of external moderation required for this qualification will be risk based and in line with the Centre Assessment Standards Scrutiny Strategy applicable to this qualification.

There may be situations within the centre devised assessment methodology that require observations, in these situations QNUK EQA Department will also require to conduct verification visits to ensure the accuracy and consistency of assessment decisions.

QNUK EQA Department will advise the centre of the required levels of moderation/verification to anticipate for this qualification upon centre approval for delivery.

17. Reasonable Adjustments

Learners are required to complete the assessments in a manner appropriate to the purpose of the qualification.

The prescribed assessment methods for this qualification should not unfairly disadvantage learners who would otherwise be able to demonstrate competence in line with the purpose of the qualification. Learners should contact their centre to discuss reasonable adjustment if they feel the prescribed assessment methods would disadvantage them.

18. Results

The centre is required to submit learner results within 10 working days of assessment to Qualifications Network UK for moderation. We will issue verified results and appropriate certification to the approved centre within 7 working days of receiving the results. Centres will forward results and/or certificates to learners, who can expect to receive them within 20 working days of taking the assessment. If learners have not received results and/or certificates within 25 working days, they should contact the centre in the first instance.

Appendix 1: Units

Unit 1 Administering Emergency Medical Gases (Y/616/0091)

Unit Summary

This unit develops the understanding of the principles of administering oxygen and Entonox® in emergency situations, how to administer both to a casualty.

1. The learner will: Understand the principles of administering oxygen in an emergency situation		
Assessment Guidance		Types of Evidence
1.1	Outline how oxygen is used within the body	MCQ
1.2	Identify indications for the administration of oxygen in different emergency situations	MCQ
1.3	Identify contraindications that prohibit the administration of oxygen	MCQ
1.4	Describe the use of pulse oximetry	MCQ
1.5	Describe the limitations of pulse oximetry	MCQ
1.6	Outline precautions to be observed in relation to oxygen	MCQ

2. The learner will: Understand how to administer oxygen to a casualty		
Assessment Guidance		Types of Evidence
2.1	Demonstrate operational checks to be undertaken on oxygen therapy equipment prior to use	Practical Observation
2.2	Demonstrate the safe preparation of different administration devices for a casualty not in cardiac arrest	Practical Observation
2.3	Demonstrate the delivery of oxygen	Practical Observation
2.4	Outline the details that should be recorded in relation to the administration of oxygen	MCQ

3. The learner will: Understand the principles of administering Entonox®		
Assessment Guidance		Types of Evidence
3.1	Describe the presentation of Entonox®	MCQ
3.2	Identify indications for the administration of Entonox	MCQ
3.3	Identify contraindications that prohibit the administration of Entonox®	MCQ
3.4	Outline precautions to be observed in relation to Entonox®	MCQ

4. The learner will: Understand how to administer Entonox [®] to a casualty		
Assessment Guidance		Types of Evidence
4.1	Demonstrate operational checks to be undertaken on Entonox [®] therapy equipment prior to use	Practical Observation
4.2	Demonstrate the safe preparation of Entonox [®]	Practical Observation
4.3	Outline the details that should be recorded in relation to the use of Entonox [®]	MCQ

Rationale for level			
	Level	Emphasis	Comments
Knowledge	3	Strong	Learners need to assess the casualty and make reasoned judgements about the management of that casualty. Application of knowledge and skills is required in possibly unfamiliar contexts
Skills	3	Good	
Overall	3		

Rationale for TUT and credit			
	Hours	Comments	
Guided learning	6	Some guided learning hours may be reduced where learners have been previously qualified in current basic life support. All assessments must still be undertaken to prove current competence.	
Directed study	N/A		
Independent study	2		
Non invigilated assessment	N/A		
TQT:	8	Credit:	1

What needs to be learnt?	
Unit 1 Administering Emergency Medical Gases (Y/616/0091)	
1.1	How oxygen is used within the body including absorbed into the blood stream; aerobic respiration; used to produce energy; cellular rejuvenation; supports the immune system; aids alertness, reflexes, memory.
1.2	Indications for the administration of oxygen in different emergency situations including shortness of breath; fast heart rate and increased blood pressure; paleness; decompression illness; air or gas embolism; carbon monoxide poisoning and smoke inhalation; etc.
1.3	Contraindications that prohibit the administration of oxygen including COPD, high fever, pacemakers or epidural pain pump, seizures, asthma, congenital spherocytosis, Eustachian tube dysfunction, upper respiratory tract infection, pregnancy, malignant tumours
1.4	Description of the use of pulse oximetry including objective measurement of oxygenation; measures saturation of haemoglobin in arterial blood; easy and non-invasive monitoring; diagnostic testing; correct placement of probe; clip type probe; self-adhesive probe used for long-term monitoring.
1.5	The limitations of pulse oximetry including may give false readings; cannot be used to assess oxygen delivery or adequacy of ventilation; effects of poor peripheral perfusion due to cold or hypotension; effects of motion on sensor.
1.6	The precautions to be observed in relation to oxygen when: <ul style="list-style-type: none"> • handling – ensure correct regulator is fitted; use of PPE if appropriate. • using – inspect regulator and cylinder valves for grease, oil, dirt or solvent; use away from open flames (i.e. cigarettes, candles, gas stoves, etc); do not use electric razors, hair dryers or any heat producing or electrical appliance that has a motor • storing – minimum 3 metres away from open flame or heat source; not stored near electrical appliances (such as electric razors, hair dryers, electric blankets, etc); keep area clean and dust free; secure and safe storage where it will not get knocked over.

2.1	The operational checks to be undertaken on oxygen therapy equipment prior to use including checking equipment is dirt and dust free; equipment is undamaged; level of supply; expiry date of oxygen; sealed and in date delivery device.
2.2	<p>The safe preparation of different administration devices for a casualty not in cardiac arrest including preparing:</p> <ul style="list-style-type: none"> • 100% non-rebreathe mask • 28% mask • simple face mask • nasal cannulae <p>This does not need to be performed in a scenario or role play situation.</p>
2.3	<p>How to demonstrate the delivery of oxygen using a:</p> <ul style="list-style-type: none"> • bag valve mask • pocket mask with oxygen port <p>Including safely setting up pocket mask and delivering breaths to a casualty; setting up bag valve mask and delivering two effective inflations.</p> <p>This does not need to be performed in a scenario or role play incident, although this is an option.</p>
2.4	The details that should be recorded in relation to the administration of oxygen including pulse rate, blood pressure, temperature, respiratory rate, oxygen concentration, flow rate, oximetry result, delivery devices used; batch number.
3.1	The presentation of Entonox® including consisting of 50% oxygen and 50% nitrous oxide; presented in painted blue cylinders with a white band around the top.
3.2	<p>The indications for the administration of Entonox® including short term procedures involving pain e.g.</p> <ul style="list-style-type: none"> • acute trauma • tooth extraction and other brief procedures of dental work • wound and burn dressing • wound debridement and suturing • fracture/joint manipulation • colonoscopy • venepuncture • physiotherapy • labour and childbirth
3.3	<p>The contraindications that prohibit the administration of Entonox® including where patients have undergone recent eye surgery involving gas bubble insertion; in cases of head injury; where a patient cannot hold a facemask/mouthpiece; any condition where a patient has air trapped in the body and expansion would be dangerous, e.g.</p> <ul style="list-style-type: none"> • pneumothorax • abdominal distension • suspected intestinal obstruction • bullous emphysema • middle ear procedures • following a recent dive.

3.4	<p>The precautions to be observed in relation to Entonox® when:</p> <ul style="list-style-type: none"> • handling- hands must be washed prior to handling Entonox cylinders • using – must be used in a well-ventilated environment; patients self-administering must be supervised by a competent practitioner; a microbiological filter must be attached between demand valve and mask/mouthpiece to prevent cross-infection. • storing – recommended that it is stored horizontally, at a temperature above 10° for 24 hours before it is used; if it is stored below 6° the nitrous oxide will separate from the mixture; away from smoking or other naked flame; cylinder should not be lubricated with oil or grease.
4.1	<p>How to demonstrate operational checks to be undertaken on Entonox® therapy equipment prior to use including:</p> <ul style="list-style-type: none"> • Equipment is dirt and dust free • Equipment is damage free • Level of supply • Expiry date of Entonox • Sealed and in date delivery device
4.2	<p>How to demonstrate the safe preparation of Entonox® including:</p> <ul style="list-style-type: none"> • Ensure gasses are mixed • Safe connecting of giving set • Aseptic technique for mouthpiece / mask
4.3	<p>The details that should be recorded in relation to the use of Entonox® including:</p> <ul style="list-style-type: none"> • Time of administration and stoppage of use • Batch number • Patients condition

Specimen Assessment Material

What piece of information is missing from this oxygen administration record:

1 *"15:00 - Casualty given 15lpm oxygen using a 100% non-rebreather mask. BN:23325G. Stopped on ambulance crew arrival at 15:23. Administered by: S Smith"*

- A** Time stopped
- B** Effect
- C** Dose
- D** Batch number

2 Why is it important to keep oxygen cylinders free from oil and grease?

- A** To prevent any leaks from the cylinder
- B** To make sure it stays in date
- C** To create a professional image
- D** To reduce the chance of dropping it.

3 When may the pulse oximetry device reading be unreliable?

- A** When it shows a regular wave form
- B** Casualty is wearing nail varnish
- C** When it is used in a dark room
- D** At high altitude