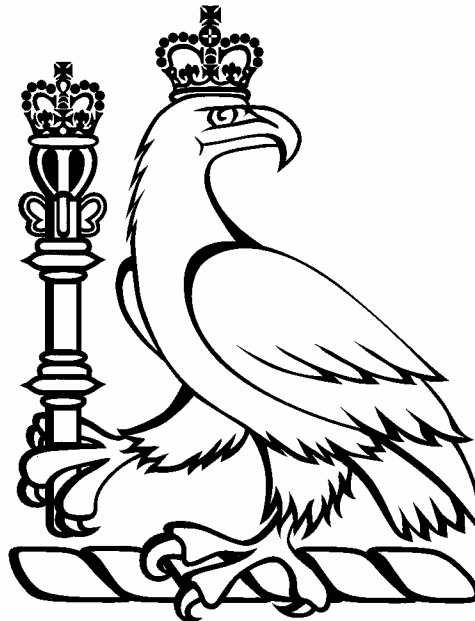


THE ROYAL COLLEGE OF SURGEONS OF ENGLAND



DIPLOMA IN OTOLARYNGOLOGY – HEAD AND
NECK SURGERY
[DOHNS (RCS Eng)]

Regulations & Syllabus

September 2002

DO-HNS Regulations

The Royal College of Surgeons of England

FOR OBTAINING THE DIPLOMA IN OTOLARYNGOLOGY – HEAD AND NECK SURGERY
(DO-HNS, RCS Eng)

Eligibility for the award of the Diploma

To be eligible for the award of the Diploma in Otolaryngology – Head and Neck Surgery, all candidates **must**:

- Possess a primary medical qualification that is acceptable to the United Kingdom General Medical Council for **Full** or **Limited Registration**;
- Have passed both sections of the DO-HNS examination;
- Have been engaged in acquiring professional knowledge and training in Otolaryngology for at least 6 months in a full time or equivalent part time position since obtaining the primary qualification required above.
- Have complied with the regulations; and
- Have paid the examination fee.

The Examination

The DO-HNS examination comprises of:

- 1) MCQ paper
This will comprise of Multiple True/False Questions and Extended Matching Questions in one paper to be completed in 2 hours.
- 2) OSCE
Candidates must have been awarded a pass in the MCQ before sitting the OSCE.
The OSCE will comprise about 30 bays including several clinical bays where candidates will be expected to examine patients.

Application

Application for entry to any part of the examination must reach the Examinations and Assessment Department by the date specified in the examinations calendar. The College regrets that applications received after the closing date cannot be processed.

Proof of Eligibility

All first time applications must be accompanied by the relevant entry fee and certificates confirming

- primary medical qualifications; and
- the holding of, or eligibility for, full or limited registration with the UK General Medical Council

All applications will require confirmation of the following:

- Possession of a primary medical qualification acceptable to the United Kingdom General Medical Council for Full or Limited Registration.
- Successful completion of 6 months full time ENT clinical work, or an equivalent length of time achieved within four years, in a part time position.

Examination application forms and calendars are available from the Examinations Department.

Withdrawal

A candidate who, in writing, withdraws an application for admission to any section may be refunded the fee paid (less an administrative fee), provided that written notice of an intention to withdraw is received by the Examinations Department before the closing date by which applications are due, as shown in the examinations calendar. No refunds are made to candidates who withdraw after the closing date, except on medical or compassionate grounds, which must be supported by the consultant or postgraduate dean responsible for training. Applications must be submitted to the Examinations Department with a medical certificate within 14 days of commencement of the examination.

Infringement of the Regulations

The College may refuse to admit to, or to proceed with, the examination of any candidate who infringes any of the regulations, or is considered by the examiners to be guilty of behaviour prejudicial to the proper management and conduct of the examination.

Feedback

Unsuccessful candidates may seek feedback via the Deputy Head of Examinations and Assessment on their performance in any part of the examination on payment of an administration fee. Such requests must be made within one month of the issue of results to obtain fuller information about his/her performance.

Appeals

On receipt of an appeal, the Head of Examinations and Assessment will consult the Chairman of the DOHNS and will reply to the request. No further correspondence will be entertained with regard to information on academic judgement provided in the reply. Under no circumstances should such request for feedback be made to an examiner.

Candidates who wish to make appeals with regard to the conduct of their examination must address them to the Head of Examinations and Assessment within two months of the examination. Appeals will be entertained which allege bias or improper conduct or administration of some kind, whether in the conduct or in the determination of the result of the examination. Appeals will then be dealt with according to the policy agreed by Council.

SYLLABUS

INTRODUCTION

The purpose of the Diploma of Otolaryngology Head and Neck Surgery is to test the breadth of knowledge, the clinical and communication skills, and the professional attributes considered appropriate by the College for a doctor intending to undertake practice within an Otolaryngology department in a non-consultant career grade or trainee position. It is also intended to provide a test for those who wish to practise within another medical specialty, but who have an interest in the aspects of where that specialty interacts with the field of otolaryngology. In particular, it will be relevant for General Practitioners wishing to offer a service in minor ENT surgery.

The examination is designed and administered in accordance with internationally accepted best practice, as are its marking, standard setting and quality assurance procedures. The Panel of Examiners also affirm their commitment to the principles of fairness, irrespective of race, colour, creed, gender, sexual-orientation or age, believing in the principle of equal opportunities for all.

The Examination Syllabus

The aim of the syllabus is to set out for candidates a comprehensive description of the breadth and depth of the knowledge, skills and attributes expected of them. The syllabus thus provides a framework around which a programme of preparation and revision can be structured.

It also sets out the areas in which candidates for the Diploma will be examined

It should be noted that a syllabus is not the same as a full curriculum, which would consist of a structured educational programme designed to prepare learners for a professional role or examination. Nor does it set out a test specification, which would define the frequency with which each element of the syllabus would appear in the examination and the weighting that it would carry.

The examination will not normally test areas that are not explicitly or implicitly included in the syllabus, but it should be noted that research and changes in the medical environment might sometimes lead to changes in scientific theory and clinical practice before the syllabus is updated to reflect them. Candidates will be expected to keep abreast of such developments by reading the appropriate literature. Topics set out in the syllabus will be widely sampled in every sitting of the examination, but each topic will not be tested on every occasion. Furthermore, good otolaryngological practice requires additional professional and personal attributes that cannot be reliably or appropriately tested within the existing format of the examination. These might include, for example: personnel management skills, time management skills, conflict resolution skills and operating skills. The College recognises the importance of these skills and methods of assessing them may be developed in the future.

Those parts of the syllabus that are suitable for assessment within the examination may be tested in either the Multiple-Choice Question (MCQ) Paper or the Objective Structured Clinical Examination (OSCE). Candidates should note that the generic principles behind good surgical practice contained in Section 1 are as important as the clinical aspects and will be assessed.

The examination

The examination consists of two parts: a 2 hour MCQ Paper and an OSCE of about 30 stations, including a number of patient stations. The MCQ paper must be passed before the OSCE can be attempted. Typical tasks for the OSCE stations might include: interpretation of CT and MRI scans, clinical examination of patients' hearing, undertaking an audiogram or identification of features of an anatomical specimen.

SYLLABUS

This syllabus is divided into three parts. Part one contains the principles behind good clinical practice, part two covers the knowledge required to undertake this and part three covers the competencies needed for good clinical practice.

Part one draws heavily upon the precepts contained in the General Medical Council's publications Good Medical Practice (2001) and Duties of a Doctor (1995) and the Royal College of Surgeons of England's publication Good Surgical Practice (2002). The College would like to acknowledge the generous use allowed by the Royal College of General Practitioners of its

publication Good Medical Practice for General Practitioners, which was a major influence on the structure and wording of sections 1-10 of Part 1 of the syllabus.

The DOHNS examination aims to assess competence in the following areas:

- Good medical practice and care in otolaryngology
- General principles of clinical care
- The patient-doctor relationship, including communication and consulting skills
- Population, preventive and societal issues
- Professional, ethical and legal obligations
- Appraisal, monitoring the quality of performance, clinical governance and audit
- Risk and resource management
- Information management and technology
- Understanding the importance of probity
- Continuing professional development (CPD), learning and teaching

PART ONE

1. Good medical practice and care in otolaryngology

- Ability to recognise and manage medical conditions in the following broad categories:
 - Common
 - Preventable
 - Treatable
 - Potentially catastrophic, meaning life-threatening or disabling
 - Less common but serious
- Elucidating and evaluating a patient's condition, based on information gathering (history and symptoms) and, when necessary, clinical examination (interpreting signs) and appropriate procedural skills and/or special tests
- Demonstrating the ability to make competent clinical decisions (diagnosis) and selection of appropriate investigation and/or treatment and knowing when no investigation or treatment is indicated
- Employing sound skill-based clinical judgement to assess the seriousness of an illness in order to prioritise care
- Respecting the autonomy of patients as partners in medical decision-making
- Recognising and working within the limits of one's professional competence, showing a willingness to consult with colleagues, and where appropriate delegating or referring care to those who are recognised as competent
- Performing consistently well
- Practising ethically

2. General principles of clinical practice

Patient care

- Treating the patient as an individual.
- Integrating information on physical, psychological and social factors that impact on patients.
- Demonstrating awareness of individual and family psycho-dynamics and their interaction with health and illness.
- Demonstrating an appropriately focussed assessment of a patient's condition based on the history, clinical signs and examination.
- Emphasising, where appropriate, the self-limiting or relatively benign natural history of a problem and the importance of patients developing personal coping strategies.

Clinical issues

- Managing uncertainty, unpredictability and paradox by displaying an ability to evaluate undifferentiated and complex problems (at a level appropriate to this Diploma).
- Applying and being able to justify the practice of contextual evidence-based medicine.
- Demonstrating the appropriate use of equipment routinely used in otolaryngology and a familiarity with the breadth of tests offered in secondary care.

Management issues

- Managing challenge, conflict and change by pragmatically balancing issues of workload, capacity and demand.
- Resolving conflicts that may arise when making decisions about the use of resources and about patient care, when the needs or expectations of the individual patient and the needs of a population of patients cannot be fully met (resource allocation).

Managing oneself and working with others

- Possessing an awareness of the needs of a doctor as a person including self and family care,
- Recognising and working within the limits of one's professional competence.
- Possessing self-insight sufficient to identify one's own strengths and weaknesses
- Managing time and workload effectively and showing an ability to cope with pressure.

- Balancing conflicting interests when having a dual responsibility, such as a contractual obligation to a third party and an obligation to patients.
- Showing a flexibility of approach according to the different needs of a wide variety of patients, irrespective of their age, cultural, religious or ethnic background, their sexual orientation or any other special needs.
- Having an ability to work effectively in a team, either as a member or leader, accepting the principles of collective responsibility, and consulting colleagues when appropriate.
- Having knowledge of support systems, including contemporary human resource management techniques.

3. The patient-doctor relationship, including communication and consulting skills

- Applying the concepts of enablement and empowering patients to make informed choices.
- Respecting patients as competent and equal partners with different areas of expertise.
- Respecting the patients' perception of their experience of their illness (health beliefs); their social circumstances, habits, behaviour, attitude to risk, values and preferences.
- Acknowledging and integrating the patients' ideas, concerns and expectations, especially with regard to the nature of their complaint.
- Showing an interest in patients, being attentive to their problems, treating them politely and considerately and demonstrating listening skills.
- Showing familiarity with well-recognised consultation techniques.
- Establishing rapport with the patient.
- Effectively developing relationships with patients, especially by being empathic and sympathetic.
- Communicating and articulating with patients effectively, clearly, fluently and framing content at an appropriate level, including in written communications.
- Involving patients' significant others such as their next of kin or carer, when appropriate, in a consultation.
- Sensitively minimising any potentially humiliating physical or psychological exposure by respecting patients' dignity, privacy and modesty.
- Demonstrating an awareness of the doctor as a therapeutic agent, the impact of transference and counter-transference, and displaying an insight into the psychological processes affecting the patient, the doctor and the relationship between them.
- Possessing an awareness of professional boundaries, of avoiding dependence and compromising patients' coping mechanisms.
- Understanding the factors, such as longer consultations, which are associated with a range of better patient outcomes.

4. Population, preventive and societal issues

- Demonstrating an understanding of the doctor's advocacy role in society.
- Understanding the concept of public interest.
- Displaying an ability to make decisions that best serve the interests of a community or population of patients.
- Understanding the contemporary compact with patients and the rights and responsibilities of Government, the medical profession and the public.
- Understanding the definition of health and normality, the characteristics of healthy people, the qualitative measurement of health and the models of health and disease.
- Knowing the conditions which constitute the main reasons for patients consulting in otolaryngology
- Demonstrating an understanding of demographic and epidemiological issues and the health needs of special groups, and the way in which these factors modify people's use of the health care services.
- Recognising the impact of environment on health, including poverty, employment, housing, nutrition, occupational hazards and pollution.
- Demonstrating an awareness of socio-political dimensions of health, for example, health care systems, strategy and funding.
- Possessing knowledge of population-based preventive strategies including immunisation, hearing screening and population screening.
- Understanding the acceptable criteria for screening for disease, and applying the concepts of primary, secondary and tertiary prevention.
- Having knowledge of contemporary screening and recall systems.
- Recognising and using opportunities for individual disease prevention and promoting the positive aspects of a healthy lifestyle.

5. Professional, ethical and legal obligations

- Understanding the importance of and demonstrating possession of the appropriate professional values and attitudes, including consistency, accountability, and respect for the dignity, privacy and rights of patients and concern for their relatives.
- Understanding the difficulties associated with ensuring the provision of equity of care.
- Showing knowledge of and adhering to contemporary ethical principles.
- Observing and keeping up to date with the laws and statutory codes governing otolaryngological practice.
- Respecting the principle of confidentiality; and, when passing on information without a patient's consent, being able to justify the decision.
- Understanding the importance of, and demonstrating a commitment to, maintaining professional integrity, standards and responsibility.
- Ensuring that, whenever possible, the patient has understood what treatment or investigation is proposed and what may result, and has given informed consent before it is carried out.
- Demonstrating knowledge of the guidelines for the treatment of patients under 16 years of age, with or without the consent of those with parental responsibility.
- Demonstrating knowledge of issues relating to clinical responsibility, e.g. with regard to drug treatment.
- Having an awareness of contemporary contractual commitments.
- Showing awareness of the 'good Samaritan' principle, i.e. offering to anyone at risk treatment that could reasonably be expected.
- Demonstrating knowledge of safe practice and methods in the working environment - relating to biological, chemical, physical or psychological hazards - which conform to health and safety legislation.
- Understanding and applying the main areas of relevant legislation, including human rights, equal opportunities, disability, employment, data protection, access to medical reports, consumer protection, health and safety, children and child protection, deaths, controlled drugs, driving motor vehicles.

6. Risk and resource management

- Understanding of how to practise in such a way as to minimise the risk to patients of harm or error.
- Informing patients about their diagnosis, treatment and prognosis, including the effective communication of risk by exchanging information, preferences, beliefs and opinions with patients about those risks.
- Engaging patients in treatment and management decisions with a view to encouraging their autonomy in matters of health.
- Discussing options and alternatives, including their advantages and disadvantages.
- Explaining why a treatment is being prescribed, or a management plan proposed, and the anticipated benefits and potential side effects.
- Finding solutions to dilemmas resulting from priorities set by Government and the NHS and/or an employing or funding body; balancing the care of patients against the effects of decisions on the resources and choices available for other patients.
- Providing clear explanations of the nature of clinical evidence and its interpretation.
- Ensuring appropriate follow-up arrangements are made.
- Understanding the role of critical event reporting, clinical audit, analysis of patients' complaints and information provided by colleagues in improving patient safety.
- Responding to criticisms or complaints promptly and constructively, and demonstrating an ability to learn from them.
- Demonstrating knowledge of the obligations for notifying outside agencies, for example, regarding safety of medicines and devices to the Medicines Control Agency, and the procedures regarding notifiable diseases.
- Recognising and reporting concerns about underperformance by an organisation or an individual, ensuring that patient care is not compromised and that the appropriate action is taken to protect patients.
- Understanding the importance for both doctors and patients of ensuring adequate insurance or professional indemnity cover.

7. Appraisal, monitoring of quality of performance, audit and clinical governance

- Demonstrating a commitment to professional audit and peer review.
- Understanding the need for appraisals and assessments of professional competence, including revalidation procedures.
- Appreciating the importance of the culture of clinical governance.
- Understanding and application of the principles and terms used in both inferential statistics and evidence-based medicine.
- Applying critical appraisal skills, statistical interpretation and audit to evaluate care.
- Demonstrating an awareness of the systems and statutory bodies for monitoring standards of care.

- Having an awareness of the benchmarking tools used to provide analysis of national inpatient data to review provider performance such as length of stay, readmission rates, waiting times and treatment costs.

8. Information management and technology

- Keeping clear, accurate, legible and contemporaneous patient records, which report the relevant clinical findings, the decisions made, the information given to patients details of any drugs or other treatment prescribed and advice about follow-up arrangements.
- Employing written communication skills to make referrals, write reports and issue certification.
- Ensuring that colleagues are well informed when sharing the care of patients, especially to ensure adequate follow-up.
- Understanding the importance of ensuring that patients are informed about the information shared within teams and between those providing their care.
- Providing all relevant information about a patient's history and current condition when referring a patient to a colleague.
- Understanding and using informatics to facilitate practice.
- Applying population-based screening and recall systems.
- Encouraging awareness of patients' rights to review their clinical records.
- Demonstrating an awareness of advances in health informatics and computing technology, and their application in improving the delivery of good otolaryngological care
- Possessing the ability to search independent electronic databases for evidence, to critically appraise the evidence and to apply new knowledge or treatment in practice.
- Demonstrating an ability to use clinical resources such as medical informatics to facilitate the delivery of high quality care.

9. Continuing Professional Development (CPD), learning, teaching and training

- Understanding the need for career-long commitment to CPD, learning, teaching and training
- Understanding the interdependence of clinical practice, organisation, information management, research education and professional development.

10. Understanding the importance of probity

Understanding the importance of:

- Promoting honesty and openness in any financial arrangements with patients, avoiding any conflicts of interest and being an example of financial probity in society.
- Demonstrating truthfulness and honesty when completing certificates and other documents.
- Ensuring that any research undertaken in practice is done to the highest standards, as approved by a research ethical committee, to ensure that the care and safety of patients is paramount.
- Protecting patients' rights, including confidentiality, and ensuring that patients are not disadvantaged when involved in research.

PART TWO – CLINICAL KNOWLEDGE

This syllabus lists the clinical areas in which the candidate may expect to be examined. The guiding principle is the safe application of knowledge in the day-to-day practice of otolaryngology, at a year one SHO level. In the context of these clinical areas, 'applied' denotes the knowledge that is required to understand the subject's relevance to clinical and surgical otolaryngological practice.

Applied Anatomy and Embryology

- ear
- nose, and paranasal sinuses
- pharynx, larynx, trachea, oesophagus
- head and neck
- gross anatomy of the brain and the intracranial contents

Applied Physiology

- general physiological principles of the major systems
- respiratory tract
- swallowing
- phonation and speech
- endocrine glandular function, particularly thyroid, parathyroid and pituitary glands
- shock and circulatory support
- exocrine glands, particularly salivary glands
- special senses, particularly hearing, balance and olfaction

Applied Microbiology

- common and important infections
- HIV
- TB and syphilis
- control of transmission
- consent for testing
- notifiable diseases
- indications for and interpretation of results of common tests

Imaging

- ultrasound
- plain radiographs
- contrast imaging
- computerized tomography
- magnetic resonance imaging

Pharmaco-therapeutics

- pharmacology of drugs used in otolaryngology
- drug interactions
- common side effects
- iatrogenic disorders

Acoustics

Applied Pathology

- indications for and interpretation of results of common biochemical tests
- indications for and interpretation of results of common haematological tests
- macroscopic and microscopic appearances of common or important diseases found in otolaryngology

Applied Psychology

- presentation of common psychiatric disorders including anxiety, depression, obsessive compulsive disorder, and somatisation disorder as they effect otolaryngological practice
- functional disorders in otolaryngology

Epidemiology and Statistics

Medicolegal Issues

Clinical Practice

Taking a History and Clinical Examination

Conditions affecting the Ear, Nose and Throat

The disorders which will be examined will be common, preventable, treatable potentially life-threatening or serious.

The following areas should be considered for each disorder listed below:

- The natural history of the untreated condition, including whether acute or chronic
- An accurate idea of the prevalence and incidence across age range and ethnic group including any changes over time
 - Typical presentation
 - Risk factors
 - Diagnostic features
 - Recognition of features which would indicate extra concern
 - Treatment including initial, emergency and continuing care
 - Prognosis

Disorders of the Ear and Petrous Temporal Bone

Disorders of Balance

Disorders of Hearing

Disorders of Smell

Disorders of the Nose and Paranasal Sinuses

Disorders of the Mouth

Disorders of Swallowing

Disorders of the Larynx and Pharynx

Disorders of the Voice

Disorders of the Neck

These disorders will include: congenital and genetic conditions, infections, inflammations, trauma, tumours, iatrogenic conditions, degenerative conditions, endocrine and metabolic diseases.

A detailed knowledge of disorders of the teeth and cervical spine will not be expected, but candidates will be expected to know when to seek opinion from an appropriate specialist dealing in neurosurgery or maxillofacial surgery.

PART THREE – CLINICAL COMPETENCIES

Candidates will be expected to have knowledge and experience of the procedures listed below at the level indicated in the chart. In some cases it will only be possible to assess this knowledge in the MCQ paper, but in others parts of the practical procedures will be tested on models or by using other simulated techniques in the OSCE.

| | Level 1 Know about | Level 2 Able to apply knowledge under supervision | Level 3 Able to apply knowledge independently |
|--|-------------------------------------|--|---|
| Antibiotics in the surgical patient | | | |
| Use of blood and its products | | | |
| The role/complications of diathermy | | | |
| Pain relief in surgery | | | |
| Thrombo-embolic prevention and management | | | |
| Wound care and nosocomial infection | | | |
| Suture techniques and materials | | | |
| Initial assessment and management of airway problems | | | |
| Initial management of foreign bodies in ENT | | | |
| Initial epistaxis and its management | | | |
| Initial management of facial fractures | | | |

| Radiology | Level 1 Be familiar with the indications for ordering | Level 2 Be able to interpret a report from a radiologist and identify the normal anatomical features | Level 3 Be able to detect common and obvious abnormalities | Level 4 Be able to detect important abnormalities in a clinical context |
|--|---|--|--|---|
| Plain films of the head, neck, sinuses and chest. | | | | |
| CT scans of the sinuses, petrous bone, neck, chest and brain | | | | |
| MRI scans of the sinuses, brain, neck, chest, head | | | | |
| Contrast radiology of swallowing | | | | |
| Sialography | | | | |
| Ultrasound of the neck | | | | |
| Common scintigraphy used in otolaryngology | | | | |
| Audiology and Vestibular testing | Level 1 Know about | Level 2 Is able to interpret a report from an audiologist | Level 3 Is able to perform the procedure with supervision | Level 4 Able to perform the procedure independently |
| Perform simple tests for hearing including a pure tone audiogram, loudness discomfort levels and a tympanogram | | | | |
| Brain stem evoked response audiometry | | | | |
| Otoacoustic emissions | | | | |
| Cortical evoked audiometry | | | | |
| Electronystagmograph | | | | |
| Equitest | | | | |
| Rotating chair test | | | | |
| Familiarity with different types of hearing aids available and the technique of mould impression | | | | |

| Neurology | Level 1 Know about | Level 2 Is able to interpret a report from a neurologist | Level 3 Is able to perform the procedure with supervision | Level 4 Able to perform the procedure independently |
|--|-------------------------------|---|---|---|
| Clinical neurological examination | | | | |
| Ophthalmoscopy | | | | |
| Lumbar puncture | | | | |
| Electromyograph | | | | |
| Electroneuronograph | | | | |
| Electroencephalograph | | | | |
| Otology | Level 1 Know about | Level 2 Familiar with and/or has seen procedure and can assist a competent person | Level 3 Is able to perform the procedure with supervision | Level 4 Is able to perform procedure independently |
| Examination of the ear – auriscope | | | | |
| Examination under the microscope – de wax external meatus and mastoid cavity | | | | |
| Suction clearance for otitis externa and insertion of wick | | | | |
| Removal of simple foreign bodies | | | | |
| Myringotomy and grommet insertion | | | | |
| Incision for mastoid surgery | | | | |
| Clinical examination of hearing | | | | |
| Clinical examination of vestibular function | | | | |
| Rhinology | | | | |
| Examination of the nose and sinuses – anterior rhinoscopy | | | | |
| Examination of smell including the UPSIT | | | | |
| Rigid endoscopy | | | | |
| Flexible nasendoscopy and examination of the post nasal space | | | | |
| Suction under endoscopic control of surgical cavity | | | | |

| | | | | |
|---|--|--|--|--|
| Insertion and removal of a nasal pack and or balloon for epistaxis | | | | |
| Simple polypectomy | | | | |
| Biopsy of the nose and nasopharynx | | | | |
| Antral washout in the management of acute sinusitis | | | | |
| Removal of simple foreign bodies | | | | |
| Drainage of septal haematoma | | | | |
| Reduction of fractured nose | | | | |
| Submucous resection | | | | |
| Reduction of turbinates | | | | |
| Laryngology | | | | |
| Examination of the larynx – indirect laryngoscopy | | | | |
| Flexible laryngoscopy | | | | |
| Direct laryngoscopy | | | | |
| Biopsy of the larynx, pharynx and oral cavity (including tongue) | | | | |
| Adenoidectomy and tonsillectomy | | | | |
| Removal of simple foreign bodies from the oropharynx and hyperpharynx | | | | |
| Incision/drainage of quinsy | | | | |
| Neck | | | | |
| Examination of the neck | | | | |
| Emergency and elective tracheostomy | | | | |
| Fine needle aspiration biopsy of a neck lump | | | | |

| Medical Statistics | Level 1 Know about | Level 2 Is able to apply when reading a research paper | Level 3 Is able to perform the procedure with assistance from a statistician | Level 4 Is able to apply the knowledge independently in research and audit |
|--|------------------------------|--|--|--|
| Concepts used in evidence based medicine including: specificity, sensitivity, absolute risk, absolute risk increase and reduction, hazard ratio, negative predictive value, number needed to harm, number needed to treat, odds, odds ratio, relative risk | | | | |
| Basic statistical concepts, sampling, inclusion and exclusion criteria, bias, confidence intervals, prevalence, incidence, probability and interpretation of results of common statistical tests of parametric and non-parametric data | | | | |
| Research design. Limitations and strengths of methodologies including, case control, cohort, and pilot studies. Questionnaire design. Qualitative studies and randomised control trials | | | | |
| Meta-analysis and systematic reviews | | | | |
| Research results – reliability, validity, generalisability. | | | | |
| Systematic appraisal of research papers | | | | |
| Application of results in the clinical context | | | | |

READING

Candidates should keep up-to date with statements on safe surgical practice from the GMC and the Royal College of Surgeons of England and should keep abreast of current developments in theory and practice by reading widely.

In order to meet the requirements of the Diploma for knowledge of good medical and surgical practice, all candidates must be familiar with the following publications:

- Good Medical Practice (2001) GMC
- Duties of a Doctor (1995) GMC
- Seeking Patient Consent: the Ethical Considerations (1998) GMC
- Research: The Roles and Responsibilities of Doctors (2002) GMC
- Withholding and Withdrawing Life-Prolonging Treatments: Good Practice in Decision Making (2002) GMC
- Also other GMC publications, all available from their website: www.gmc-uk.org
- Good Surgical Practice (2002) RCS England, available from www.rcseng.ac.uk

SAMPLE PAPER



Please write your
candidate number
here:

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND

DIPLOMA IN OTORALYNGOLOGY, HEAD AND NECK SURGERY PILOT PAPER

Sample paper
2 hours long

Please read these instructions carefully before making any marks on your answer sheet

- This question booklet is split into two sections: Section 1 - Multiple true false questions
Section 2 - Extended matching questions
- You have **two and a half hours** to answer the paper and **complete your answer sheet**.
- You should note that there are equal marks for each question but that the Extended Matching questions take longer to answer.
- You may answer the questions in whichever order you choose.
- Allow adequate time to transfer your answers to the answer sheet.
- The answer sheet is double sided. Side 1 is for section 1; side 2 is for section 2.
- Do not make any marks on your answer sheet other than indicating your answer with a clear horizontal line in the boxes provided. **Use only the pencil provided**. Do not use pen or ballpoint.
- Do not fold or crease the sheet.
- Marks will only be awarded for answers correctly and clearly entered on the answer sheet.
- **Please insert your candidate number in pencil on the answer sheet.**

The answer sheets are machine read. If you do not follow these instructions the computer which scores the papers may reject your sheet.

- NO CANDIDATE MAY LEAVE THE EXAMINATION BEFORE THE END.
- NO CANDIDATE MAY LEAVE THE HALL UNTIL BOTH ANSWER SHEET AND QUESTION BOOKLET HAVE BEEN COLLECTED FROM **EVERY** CANDIDATE.
- ANY CANDIDATE WHO LEAVES THE EXAMINATION HALL BEFORE ALL THE ANSWER SHEETS AND QUESTION BOOKLETS HAVE BEEN COLLECTED IS LIABLE TO BE DISQUALIFIED.

There is no negative marking on this paper.

DO NOT REMOVE THIS EXAMINATION PAPER

MRCS MCQ EXAMINATION -LIST OF ABBREVIATIONS

The MCQ papers will make use of common abbreviations. For clarity these are defined in the list below:

| A | | I | |
|------------------|---|-------|---|
| ACE | Angiotensin converting enzyme | IgA | Immunoglobulin A |
| ACTH | Adrenocorticotrophic hormone | IgD | Immunoglobulin D |
| ADH | Antidiuretic hormone | IgE | Immunoglobulin E |
| AIDS | Acquired immune deficiency syndrome | IgG | Immunoglobulin G |
| AIS | Abbreviated injury score | IgM | Immunoglobulin M |
| APACHE II | Acute physiological and chronic health evaluation II scoring system | INR | International normalised ratio |
| APTT | Activated partial thromboplastin time | ISS | Injury severity score |
| ARDS | Adult respiratory distress syndrome | ITU | Intensive therapy unit |
| ASA | American Society of Anaesthesiologists | IVC | Inferior vena cava |
| | | IVU | Intravenous urogram |
| B | | J | |
| BMI | Body mass index | JVP | Jugular venous pressure |
| BP | Blood pressure | L | |
| BRCA1 | Breast cancer gene 1 | LFTs | Liver function tests |
| C | | M | |
| CAPD | Continuous ambulatory peritoneal dialysis | MCV | Mean corpuscular volume |
| CDH | Congenital dislocation of the hip | MEN | Multiple endocrine neoplasia |
| CEPOD | Confidential enquiry into peri-operative deaths | MESS | Mangled extremity severity score |
| CPAP | Continuous positive airway pressure | MIBG | Meta iodo benzoyl guanidine |
| CSF | Cerebrospinal fluid | MMS | Mortality and morbidity score |
| CT | Computed tomography | MRI | Magnetic resonance imaging |
| CVP | Central venous pressure | P | |
| D | | PTFE | Polytetrafluoroethylene |
| DTPA | Diethylene tetramene penta-acetic acid | PTH | Parathyroid hormone |
| DU | Duodenal ulcer | Q | |
| E | | QRS | Electrocardiographic wave form |
| ECG | Electrocardiograph | R | |
| EEG | Electroencephalograph | RBC | Red blood cell |
| EMG | Electromyograph | RTS | Revised trauma score |
| ERCP | Endoscopic retrograde cholangiopancreatography | S | |
| F | | SIMV | Synchronised intermittent mandatory ventilation |
| FEV ₁ | Forced expiratory volume in one second | SIRS | Systemic inflammatory response syndrome |
| FNA | Fine needle aspiration | SVC | Superior vena cava |
| FVC | Forced vital capacity | T | |
| G | | TFTs | Thyroid function tests |
| GCS | Glasgow coma scale | TRISS | Trauma revised injury severity score |
| GI | Gastro-intestinal | TSH | Thyroid stimulating hormone |
| H | | V | |
| HCG | Human chorionic gonadotrophin | VMA | Vanilylmandelic acid |
| HDU | High dependency unit | W | |
| HIV | Human immunodeficiency virus | WBC | White blood cell |

GLOSSARY OF CONVENTIONAL TERMS

Every effort is made to ensure that the wording of questions is as clear and unambiguous as possible. For the purposes of the examination, certain conventional terms have the following meanings:

Timing of Intervention *Definitions are based on the Department of Health recommendations:*

Immediate within 3 hours
Urgent within 24 hours

Terminology

- 1 **Characteristically, classically, predominantly and reliably:** *Imply that a feature would occur in at least 90% of cases.*
- 2 **Typically, frequently, commonly and usually** *Imply that a feature would occur in at least 60% of cases.*
- 3 **Often and tends to:** *Imply that a feature would occur in at least 30% of cases.*
- 4 **Has been shown, associated, recognised, treatment of choice, optimally, adequately and features which may be present or may be caused by:** *Refer to evidence which can be found in a modern authoritative medical text. None of these terms makes any implication about the frequency with which the feature occurs.*

Figures

When figures are given in the context of epidemiology, round figures are to be treated as approximations and precise figures as exact values. *For example, the figure of 30% does not imply exactly 30% but approximately 30% to within 5% either way. Conversely, the figure of 2% would mean that precisely this amount is indicated.*

Other definitions

Prolonged of a duration longer than would characteristically be expected

SECTION 1 - MULTIPLE TRUE FALSE QUESTIONS

- Each question contains a variable number of items.
- Each item may be true or false.
- It is possible for the items in any one question to be all true, all false or any intermediate combination.
- You should mark each item as *either* true or false. However, you should *not* mark boxes for which there are no items.
- Marks will not be deducted for a wrong answer. Equally, you will not gain a mark if you mark both true and false.
- Only answers that are clearly struck **horizontally** across the correct response will guarantee a mark.
- Faint marking may be rejected or misread by the optical marking system.
- All scores within 5 marks of the pass mark will be scrutinised.

Example question and recommended method for answering questions.

First you should decide whether each item is true or false indicating your decision by putting a tick or cross against it in the question booklet. When you are satisfied with your decisions, **record your answers on the answer sheet**. If you believe a choice to be true, draw a clear horizontal line through the box marked T (TRUE). If you believe the choice to be false, draw a clear horizontal line through the box marked F (FALSE).

1. In a healthy subject cardiac output is increased by: -

- ✗ A the erect posture
- ✓ B raising the central venous pressure
- ✗ C an intravenous injection of noradrenalin
- ✓ D an intravenous injection of adrenalin
- ✓ E an increase in heart rate

| | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 1 | T | F | T | F | T | F | T | F |

If you decide that items B, D and E are true and that items A and C are false you record this by making heavy black marks horizontally on the answer sheet as shown above. In this example, no marks should appear in the boxes under F, G or H as there are no items F, G or H.

- 1 In statistics:
- A alternate allocation of data is an effective method of randomisation
 - B non-parametric tests make no assumption about the population distribution
 - C in a normally distributed population, one standard deviation from the mean embraces 95% of the values
 - D the power of a clinical trial is its capacity to detect a true difference between groups
- 2 Clinical features of early sepsis include:
- A cold, clammy extremities
 - B polyuria
 - C high systemic vascular resistance
 - D elevated blood pressure
 - E elevated blood lactate level
- 3 The tongue:
- A develops from the first and third branchial arches
 - B has taste buds supplied by the hypoglossal nerve
 - C is protruded by the genioglossus muscle
 - D has a profuse anastomosis of blood vessels across its midline
 - E deviates to the left in lesions of the left glossopharyngeal nerve
- 4 The recurrent laryngeal nerve:
- A is a branch of the vagus nerve
 - B is associated with arterial developmental anomalies if it enters the larynx directly
 - C divides before entering the larynx
 - D contains fibres which supply the cricothyroid muscle
 - E contains sensory fibres to the infraglottic larynx
- 5 In respiratory alkalosis:
- A carpopedal spasm is reversed by re-breathing expired air
 - B cerebral blood flow is reduced by arteriolar vasoconstriction
 - C bicarbonate reabsorption in the kidney will fall
 - D tetany occurs because of changes in protein binding of calcium
 - E the end tidal PCO₂ will rise

6 Recognised risks for combustion in an operating theatre include the presence of:

- A nitrous oxide
- B bowel gas
- C monopolar diathermy
- D aqueous povidone iodine
- E chlorhexidine in spirit
- F Holmium-YAG-Laser

7 **Minor salivary gland tumours:**

- A are commonly malignant
- B occur most often on the hard palate
- C are rarely adenoid cystic carcinomas
- D are of mucoepidermoid type in approximately 25% of cases
- E that are shown to be adenoid cystic carcinomas commonly spread to local lymph nodes

8 **Cholesteatoma:**

- A represents one form of chronic suppurative otitis media
- B can arise congenitally
- C is usually treated in children by regular microsuction clearance
- D typically undergoes malignant transformation
- E can occur behind an intact tympanic membrane

9 **Nasopharyngeal carcinoma:**

- A commonly presents with cranial nerve palsies
- B occurs more frequently in patients from the Far East
- C is commonly a squamous carcinoma
- D is usually treated by primary surgical excision
- E is often associated with exposure to wood dust

10 **Pharyngeal pouch:**

- A usually presents in patients under 40 years of age
- B commonly presents as a lump in the neck
- C can be treated by an endoscopic operation
- D usually arises from a dehiscence in the middle constrictor muscle of the pharynx
- E when treated surgically, requires speech therapy post-operatively

SECTION 2 - EXTENDED MATCHING QUESTIONS

Questions consist of a theme, a list of options (labelled alphabetically), an instruction and a variable number of clinical situations.

- For each of the clinical situations, you should choose the **single most likely option** according to the instruction.
- It is possible for one option to be the answer to more than one of the clinical situations.
- Marks will not be deducted for a wrong answer. Equally, you will not gain a mark if you mark more than one option.
- Only answers that are clearly struck horizontally across the correct response will guarantee a mark.
- Faint marking may be misread. All scores within 5 marks of the pass mark will be scrutinised.

Example question and recommended method for answering questions.

First, you should decide which option is correct for each clinical situation, indicating your decision by annotating the question booklet alongside the clinical situation. When you are satisfied with your decisions, **record your answers on the answer sheet** by drawing a clear horizontal line through the box containing the letter corresponding to the option.

Theme: Chest injuries

Options:

- a Tension pneumothorax
- b Aortic rupture
- c Haemothorax
- d Aortic dissection
- e Ruptured spleen
- f Cardiac tamponade

For each of the situations below, select the **single** most likely diagnosis from the list of options above. Each option may be used once, more than once or not at all.

61 **f** A 24 -year-old man is brought into the Accident & Emergency Department following a stabbing with a screwdriver. He is conscious. On examination he is tachypnoeic and has a tachycardia of 120 beats per minute. His blood pressure 90/50 mm/Hg. He has a small puncture wound below his right costal margin. A central venous line is inserted with ease, and his central venous pressure is 17 cm. A chest X-ray shows a small pleural effusion with a small pneumothorax. He has received two units of plasma expander, which has failed to improve his blood pressure.

62 **b** A 42 -year-old man is admitted following a road traffic accident complaining of pains throughout his chest. He was fit and well prior to the incident. He is tachypnoeic and in considerable pain. His brachial blood pressure is 110/70 mm/Hg and his pulse rate is 90 beats per minute. Both femoral pulses are present though greatly diminished. A chest X-ray shows multiple rib fractures and an appreciably widened upper mediastinum. Lateral views confirm a fractured sternum. An ECG shows ischaemic changes in the V-leads.

| | A | B | C | D | E | F | G | H | I | J |
|----|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ |
| 61 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 62 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

If you decide that the answer to the first situation is option F, record this by making a heavy black mark in the box labelled F on line 61. If you decide that the answer to the second description is option B record this by making a heavy black mark in the box labelled B on line 62.

Theme: Swelling in the neck

Options:

- a Cystic hygroma
- b Congenital dermoid cyst
- c Acquired epidermoid cyst
- d Thyroglossal cyst
- e Carotid body tumour
- f Branchial cyst
- g Sternomastoid tumour

For each of the patients described below, select the single most appropriate diagnosis from the options listed above. Each option may be used once, more than once or not at all.

- 61 Following upper respiratory infection, a 21-year-old man develops a cystic swelling 5 cm in diameter deep to the anterior border of the sternomastoid muscle at the level of the hyoid bone.
 - 62 A 17-year-old boy was seen at the out-patient clinic with a cystic midline swelling in the upper part of the neck. On palpation it was found to be attached to the body of the hyoid bone.
-

Theme: Nerve injuries

Options:

- a Accessory nerve
- b Long thoracic nerve
- c External laryngeal nerve
- d Recurrent laryngeal nerve
- e C3, C4 nerve roots
- f C4 nerve root
- b Axillary nerve
- c Nerve to latissimus dorsi
- d Vagus nerve

For each of the surgical procedures described below, select the single most likely nerve to be damaged from the options listed above. Each option may be used once, more than once or not at all.

- 63 A 45-year-old woman undergoes exploration for a mass in the posterior triangle of the neck and develops drooping of the ipsilateral shoulder.
- 64 A 50-year-old woman who is a professional opera singer undergoes a subtotal thyroidectomy for multinodular goitre and notices a reduced ability to achieve the high notes.

Theme: Dizziness

Options:

- a Transient ischaemic attacks
- b Benign paroxysmal positional vertigo
- c Vestibular neuronitis
- d Migraine
- e Meniere's disease
- f Ototoxicity
- g Cervical vertigo
- h Hypertension
- i Cardiac arrhythmia
- j Postural hypotension

For each of the patients described below, select the single most likely diagnosis from the options listed above. Each option may be used once, more than once or not at all.

- 65 A 62-year-old man presents with a four-day history of dizziness, nausea and vomiting that has confined him to bed.
- 66 A 50-year-old woman presents with intermittent dizziness that is often precipitated by turning over in bed.
- 67 A 72-year-old woman being treated for hypertension presents with a history of feeling dizzy when she gets out of bed in the morning.

Theme: Paediatric airway

Options:

- a Laryngo-tracheo-bronchitis
- b Epiglottitis
- c Laryngomalacia
- d Parapharyngeal abscess
- e Cystic hygroma
- f Subglottic haemangioma
- g Subglottic stenosis
- h Juvenile laryngeal papillomatosis
- i Intubation granuloma

Select the most likely diagnosis from the options listed above. Each option may be used once, more than once or not at all.

- 68 A 6-week-old infant that required ventilation for respiratory distress syndrome when born prematurely now presents with inspiratory stridor a few weeks later.

- 69 A five-year-old child presents with a five-day history of sore throat and now has drooling with trismus and shallow breathing.

Theme: Epistaxis

Options:

- a Transverse cervical artery
- b Sphenoplatine artery
- c Facial artery
- d Anterior ethmoidal artery
- e Ascending pharyngeal artery
- f Superficial temporal artery
- g Lingual artery
- h Superior thyroid artery

For each of the following patients with epistaxis, which is the most likely artery to be the source of bleeding? Each option may be used once, more than once or not at all.

- 70 A 22-year-old man is admitted with a severe epistaxis following a nasal fracture. Profuse bleeding was identified from an artery in the superior aspect of the left nasal cavity.
- 71 A 35-year-old woman was admitted with an epistaxis two days following middle meatal antrostomies. Rigid nasal endoscopy revealed arterial bleeding posterior to the antrostomy within the ethmoid cavity.