FRCSI (Ophth) regulations and guidance notes

Recent changes to FRCSI (Ophth)
The new FRCSI (Ophth) replaces the Fellowship Exit Assessment for Higher Specialist Training (HST) in ophthalmology in Ireland. The first sitting of this examination will be in 2013, when trainees who commenced higher specialist training in 2010 will enter their final 1-2 years of training. Trainees entering Higher Specialist Training in Ireland after January 1st 2010 will take the new fellowship examination in year 4 or 5 of their specialist registrar training.

Eligibility to take the examination
This examination is exclusive to higher specialist trainees in Ireland. To be eligible to sit the FRCSI examination you must hold MRCSI or equivalent and be in year 4 or 5 of HST.

Examination content and standard
The candidate will need to demonstrate that he/she is competent to practice independently as a general ophthalmic surgeon by possessing the requisite knowledge, clinical skills, clinical reasoning ability and professional values. The standard expected will be that of a general consultant ophthalmic surgeon in Ireland without a specific subspecialty interest. The content of the examination is described in the attached syllabus.

Examination format
The examination will take the form of a one-hour viva examination with set questions that cover the breadth of clinical ophthalmology and ophthalmic surgery. A minimum of three examiners will conduct the examination. The examiners will take turns asking the questions and recording the answers. The expected answers to the set questions will be approved by the FRCSI (Ophth) examinations committee. Candidates who fail to achieve the basic standard in all subspecialty areas assessed will be required to re-sit the whole examination.

Recommendations
It is most effective to prepare for the FRCSI through experience-based learning, regular reading of the literature and up to date textbooks, and attendance at post-graduate training courses and meetings over the entire duration of higher specialist training. It is recommended that higher specialist trainees aim to achieve the required standard to pass this examination at the end of each subspecialty attachment in the areas covered during that subspecialty attachment. Therefore, it is essential that trainees prepare for this examination on a continual basis throughout HST.

Overall result
Candidates will receive a pass or a fail in this examination.

Limit on attempts
There are no limits to the number of attempts at the FRCSI examination.
Timing and venue
The examination will be held twice annually, in the spring and the autumn, at the Royal College of Surgeons in Ireland, 123 St Stephen’s Green, Dublin 2. The examination will be arranged at a time that suits those entering their final year of training. The first sitting of the examination will be in December 2013 (see website under examinations).

NOTE: These Regulations are under continual review. It is recommended that candidates review the RCSI website to ensure that they have the most up-to-date information. Any changes will be announced on the website.

June 6th 2013
Syllabus for FRCSI (Ophth)

Main subjects:
Generic competencies and professionalism
Principles of ophthalmic surgery
Clinical ophthalmology
   Cornea & external diseases
   Cataract & Refractive surgery
   Oculoplastics, lacrimal and orbital disease
   Glaucoma
   Medical Retinal disease
   Vitreoretinal surgery
   Uveitis
   Ocular oncology
   Neuroophthalmology
   Paediatric Ophthalmology & Strabismus

Generic competencies and professionalism
Professional standards, ethics and good medical practice
Principles of clinical governance
Clinical audit and patient safety
Communication skills:
   Breaking bad news
   Dealing with distressed patients and/or relatives
   Dealing with complaints
   Communicating with colleagues
Visual impairment
   International definitions
Psychological and social implications for the patient
   Available support resources
Driving and occupational regulations related to visual impairment in Ireland
Principles of evidence based medicine
Basic epidemiology and clinical research techniques

Principles of ophthalmic surgery
Surgical instrumentation, sutures and their uses
Common ophthalmic surgical procedures
Management of trauma to the eye and adnexae

Clinical ophthalmology
Cornea and external eye disease
Infections of the conjunctiva
Cicatrical conjunctival disease: Stevens-Johnson syndrome, mucous membrane pemphigoid; other causes
Allergic conjunctival disease; vernal keratoconjunctivitis, atopic keratoconjunctivitis, seasonal allergic conjunctivitis, giant papillary conjunctivitis
Conjunctival malignancies: ocular surface squamous neoplasia, melanocytic neoplasms
Pterygium
Benign lesions of the conjunctiva
Blepharitis and acne rosacea
Scleritis and episcleritis
Corneal infections: bacterial keratitis, herpes simplex keratitis, varicella zoster keratitis, fungal keratitis, acanthamoeba keratitis
Recurrent corneal erosion syndrome
Dry eye syndrome
Autoimmune corneal disease: peripheral ulcerative keratitis and corneal melting disorders, Mooren’s ulcer
Keratoconus and other ectasias
Pseudophakic/aphakic bullous keratopathy; other causes of corneal oedema
Corneal dystrophies, degenerations and deposits
Neurotrophic keratopathy
Trauma: penetrating, chemical injury
Congenital corneal abnormalities
Contact lenses
Corneal Transplantation, limbal stem cell transplanation
Eye banking
Keratometry
Corneal topography
Optical coherence tomography of anterior segment
Microbiological investigations
  Diagnostic corneal scrape
  Conjunctival swabs
  Intra-ocular samples; vitreous biopsy, anterior chamber tap
Schirmer’s test
Confocal microscopy
Specular microscopy

Cataract and refractive surgery
Acquired cataract:
  Aetiology
  Management
  Biometry and planning of refractive outcome
  Intraocular lenses
  Pre-operative evaluation
  Predicting surgical challenges
  Surgical methods, equipment and instrument
  Anaesthetic techniques
  Complications of cataract surgery and local anaesthesia
  Managing coexisting cataract and glaucoma
  Cataract surgery combined with penetrating keratoplasty
  Lens-induced glaucoma
  Phacolytic inflammation
  Viscoelastics
  Intraocular lenses
  Cataract surgery post corneal refractive surgery
  Managing refractive surprise after cataract surgery
  Ectopia lentis
  Nd:YAG laser capsulotomy
Congenital cataract including surgical management options
Optical treatment and prevention of amblyopia
Corneal refractive surgery: arcuate keratotomy, laser (LASIK, LASEK, PRK)
Refractive lens surgery; clear lens extraction, phakic IOLs

Oculoplastics, lacrimal and orbital disease
Eyelid malpositions including ectropion, entropion, ptosis, lagophthalmos, lid retraction
Lash abnormalities; trichiasis, distichiasis
Congenital abnormalities of the lids
Abnormal lid swellings and benign and malignant lid lesions
Blepharospasm
Dermatochalasis
Lid trauma
Facial nerve palsy
Principles of oculoplastic surgical technique
The watering eye
Congenital and acquired abnormalities of the lacrimal system
Lacrimal surgery
Orbital cellulitis
Orbital inflammation including thyroid eye disease
Orbital tumours
Orbital trauma
Congenital abnormalities of the orbit
Vascular lesions of the orbit
Evisceration, enucleation and exenteration

Glaucoma
Epidemiology and screening
Mechanisms of glaucoma
Optic nerve head assessment
Visual field analysis in glaucoma
Tonometry
Gonioscopy
Paediatric glaucoma
Open angle glaucomas
Ocular hypertension
Angle closure glaucomas
Medical management
Laser therapies
Surgical management including complications

Medical Retinal disease
Vascular retinal disorders:
  Diabetic retinopathy
  Arterial and venous occlusive disease
  Ocular ischaemic syndrome
  Hypertensive retinopathy
  Retinal arterial macroaneurysm
  Retinal Vasculitis
Coat’s disease
Sickle cell retinopathy
Eales’ disease
Retinal features of blood disorders, e.g. anaemia, leukaemia, and myeloma
Retinal vascular anomalies
Age-related macular degeneration
  Epidemiology, risk factors, and pathophysiology
  Management
Retinal dystrophies
  Retinitis Pigmentosa
  Flecked retina syndromes
  Macular dystrophies
  Congenital stationary night blindness
  Choroidal dystrophies and degenerations
  Hereditary vitreoretinopathies
Angioid streaks
Central serous retinopathy
Cystoid macular oedema
Degenerative myopia
Drug-induced retinal disease
Phototoxicity
Radiation retinopathy
Retinal photography
Electroretinography
Electrooculography
Optical coherence tomography of posterior segment
Fluorescein angiography
Indocyanine green angiography
Ultrasound biomicroscopy

**Vitreoretinal surgery**
  Peripheral retinal lesions
  Retinal breaks
  Retinal detachment
    Rhegmatogenous
    Serous retinal
    Tractional
    Proliferative vitreoretinopathy
  Macular hole
  Epiretinal membrane
  Vitreous haemorrhage
  Endophthalmitis
  Trauma and IOFB
  Retinoschisis

**Uveitis**
  Infectious uveitis
  Non-infectious immune-mediated uveitis
  Uveitis masquerade syndromes
  Systemic disease associated uveitis
Investigation of the patient with uveitis
Principles of uveitis management
Management of cataract and glaucoma in uveitis

Ocular oncology
Malignant intraocular tumours
Retinoblastoma
Uveal melanoma
Uveal metastases
Lymphoma and leukaemia
Benign intraocular tumours
Choroidal naevus
Choroidal haemangioma
Choroidal osteoma
Retinal hamartomas
Retinal vascular tumours
Investigation and management of intraocular tumours

Neuroophthalmology
Clinical assessment of ocular motility, diplopia, nystagmus, abnormal eyelid and facial movements, pupils, ptosis, proptosis, cranial nerve function and visual fields
Ocular motility disorders
Cranial nerve palsies
Visual field abnormalities
Pupil abnormalities
Nystagmus
Optic disc abnormalities
Optic neuropathies
Visually evoked cortical potentials
Pituitary and chiasmal disorders
Intracranial tumours
Headache and facial pain
Migraine
Benign intracranial hypertension
Cerebrovascular disease
Optic neuritis and multiple sclerosis
Myasthenia gravis
Parkinson’s disease
Psychosomatic disorders and visual function
Blepharospasm and hemifacial spasm
Periocular Botulinum toxin injection technique
Orbital and neuro-CT scans
Orbital and neuro-MRI scans
Neuro-angiography
Visually evoked potentials
Goldmann perimetry
Hess charts
Paediatric Ophthalmology & Strabismus

Binocular function

Accommodation anomalies

Assessment of strabismus
  - Cover, cover-uncover test and alternate cover test
  - Assessment of ocular movements
  - Measurement of deviation
  - Assessment of fusion, suppression and stereo-acuity.
  - Knowledge of Hess Chart/Lees Screen, field of BSV and uniocular fields of fixation

Paediatric strabismus
  - Infantile esotropia
  - Acquired esotropia
  - Intermittent exotropia
  - Congenital superior oblique weakness
  - Duane’s syndrome
  - Brown’s syndrome

Adult
  - Forced duction test technique
  - Tests to predict postoperative diplopia
  - Concomitant strabismus in adults
  - Third, fourth and sixth cranial nerve palsy
  - Supranuclear causes of eye movement deficits
  - Strabismus due to Myasthenia, thyroid eye disease and orbital trauma

Principles of strabismus surgery

Principles of adjustable surgery techniques

Botulinum toxin, role in the management of strabismus

Paediatric refractive errors

Vision testing in children

Amblyopia

Retinopathy of prematurity

Visual loss secondary to neurological disease in infants and children

Leukocoria

Leber’s congenital amaurosis

Albinism

Phakomatoses

Aniridia
SAMPLE QUESTION

A 48 year old man presented to the emergency department with a 3 week history of increasingly severe eye pain, worse in the right eye. There is no history of discharge or lacrimation but both eyes are red, particularly the right eye (shown in figure).

What is your differential diagnosis?
Answer:
Scleritis, episcleritis

How would you differentiate these conditions on clinical grounds?
Answer:
Scleritis – increasing, continuous, severe pain, diffuse and deep hyperaemia, nodules present, tender to touch, bluish hue to sclera in natural light, decreased but persistent hyperaemia with phenylephrine 2.5%.
Episcleritis – typically recurrent hyperaemia, previous self-limiting episodes, mild tenderness, less severe pain, blanches with phenylephrine 2.5%, nodules may occur but rarely as marked as shown.

Describe a classification for each these conditions.
Answer:
Scleritis: Anterior - diffuse, nodular, necrotising with inflammation or necrotising without inflammation (scleromalacia perforans) or posterior - diffuse, nodular or necrotising.
Episcleritis: diffuse or sectoral +/- nodular

What questions would you ask the patient to help identify any underlying cause for this problem?
Answer:
Past medical history: Connective tissue disease (e.g. SLE, Wegener’s granulomatosis) or rheumatoid arthritis.
Past ophthalmic history: Previous episodes, HZO in unilateral cases
Review of systems: describe symptoms suggestive of associated conditions

On further questioning, the patient describes a two month history facial pain and a recent diagnosis of sinusitis made by his GP. He has also had several episodes of epistaxis. What condition needs to be considered as the cause?
Answer:
Wegener’s granulomatosis

What investigations would you perform?
Answer:
Blood tests: FBC, U+E, LFTs, CRP, ESR, ACE, VDRL, Autoantibody screen including ANA, ANCA, RF
Radiology: CT sinuses, CXR
Urinalysis

Describe your initial management of this case.
Answer:
Initial management of scleritis is usually with oral NSAIDS but given the severity in this case I would proceed to prednisolone at a starting dose of 60mg after an assessment of the risks (e.g. excluding infective causes) and benefits of this treatment based on his previous history. PPI cover whilst on a high dose would also be required. Referral to appropriate specialists would be made depending on the results of his investigations (e.g. rheumatology or clinical immunology, ENT).

How would you describe the risks and benefits of your proposed management and monitor for any unwanted effects?
Answer:
Risks: short-term include mood changes, insomnia, weight gain. Long-term include diabetes, hypertension, dermatitis, osteoporosis.
Benefits: Prednisolone is a potent anti-inflammatory. Immunosuppressive therapy is likely to be required if a diagnosis of Wegener’s granulomatosis is confirmed.
Monitoring:
Weight, urinalysis, BP, side effects

This example question demonstrates the minimum knowledge and clinical decision making ability required of an independent consultant ophthalmic surgeon during the initial work-up of a patient with scleritis secondary to Wegener’s granulomatosis. Detailed knowledge on the subsequent management with immunosuppression would not be expected of examination candidates but basic knowledge of the treatment options and the need for either subspecialist input or physician input into further management would be required. Finally, the questions asked of candidates may vary depending on the responses given and candidates will be given the opportunity to demonstrate a higher level of knowledge in this way.