

MODULE SPECIFICATION

KEY FACTS

Module name	Medical Retina
Module code	OVM056
School	School of Health Sciences
Department or equivalent	Division of Optometry and Visual Science
UK credits	15
ECTS	7.5
Level	7

MODULE SUMMARY

Module outline and aims

The incidence of medical retina disorders is increasing with the rising age of the population. Concurrently, the advent of new treatments such as anti-vascular endothelial growth factor agents means that more patients are eligible for ophthalmic interventions. Hence, the impact of conditions such as age-related macular degeneration, diabetic retinopathy, and other vascular disorders on clinical practice on the high street and in hospital eye clinics is increasing. This module aims to provide optometrists with the opportunity to expand their knowledge of common medical retina conditions, their diagnosis, referral and management. This will be of benefit, not only to community based optometrists wishing to develop their professional skills, but also to optometrists who wish to commence working in hospital medical retina clinics or diabetic retinopathy screening services.

Content outline

This module aims to provide community and hospital based optometrists with knowledge of common medical retina conditions, enabling them to make accurate and appropriate referral decisions. Additionally, the module aims to prepare optometrists to commence working in diabetic retinopathy screening services, and (under supervision) in medical retina new patient triage clinics and AMD treatment-retreatment clinics.

On this module you will learn about:

- The physiology and anatomy of the healthy retina
- The pathophysiology, risk factors, and differential diagnosis of retinal and macular pathology
- Current treatments of medical retina disorders
- Communication with patients
- OCT imaging and fundus photography in the healthy eye and in ocular pathology
- Fluorescein angiography, ICG angiography and autofluorescence imaging in the healthy eye and in pathology
- National diabetic retinopathy screening programmes
- Diabetes, its classification, risk factors, and associated ocular complications, with an emphasis on the relevance to retinopathy screening.

WHAT WILL I BE EXPECTED TO ACHIEVE?

On successful completion of this module, you will be expected to be able to:

Knowledge and understanding:

- Demonstrate a detailed knowledge of the anatomy, physiology and pathophysiology of the retina, with emphasis on the macula
- Demonstrate an in –depth understanding of the risk factors and differential diagnosis of disorders of the retina and macular pathology
- Demonstrate a critical understanding of treatments of medical retina disorders, including the patient’s response to treatment
- Demonstrate a critical awareness of the use of fluorescein, ICG angiography, and autofluorescence in medical retina service delivery
- Demonstrate an in-depth understanding of the principles, processes and protocols of national diabetic retinopathy screening programmes
- Demonstrate an in-depth understanding of diabetes and its relevance to diabetic retinopathy screening
- Demonstrate a critical awareness of current national referral guidelines and a detailed knowledge of local referral pathways for patients with medical retina disorders
- Demonstrate a critical awareness of the rapidly evolving nature of medical retinal treatments, including pertinent treatment trials
- Demonstrate an in-depth understanding of current guidelines for management of medical retina disorders.

Skills:

- Show an ability to communicate effectively with patients
- Show an advanced ability to critically interpret OCT images and fundus photographs for AMD and diabetic retinopathy, with appropriate patient management
- Show an expert ability to detect and classify diabetic retinal disease
- Show a comprehensive ability to recognise acute retinal pathology, conduct appropriate tests and make appropriate referrals, clearly stating the level of urgency

Values and attitudes:

- Show a critical awareness of ethical practice and demonstrate a critical awareness of patient confidentiality
Show an appropriate attitude towards patients and interprofessional colleagues

HOW WILL I LEARN?

It is well-established that adult learners learn best in smaller groups and with greater interaction. The module is therefore designed using a blended learning approach so that we can use the most appropriate teaching methods: the first day is delivered online using our Virtual Learning Environment (VLE) called Moodle. This allows you to study the background materials in your own time and as needed. This flexible approach also reduces time away from your practice with all of its cost implications. However, it is very

important that you have significant face to face learning and so the remainder of the module is taught in didactic sessions of up to 32 students with the addition of group work and case discussions. All lecturers are experts and encourage questions and discussion during their teaching. Some will also include specific interaction sessions to encourage critical thinking and to allow you put what you have learnt into practice. Practical sessions work in groups of about 5/6 allowing you some hands-on experience and the chance to ask in-depth questions. Finally, virtual case discussions allow group discussion about specific cases.

Teaching pattern:

Teaching component	Teaching type	Contact hours - scheduled	Self-directed study hours (independent)	Placement hours	Total student learning hours
14 hours of online materials	Online lectures and tutorials delivered via Moodle	14	16	0	30
14 hours of lectures, practical classes and workshops and demonstrations	Lectures, practical classes and workshops, demonstrations and discussions	14	106	0	120

Totals		28	122	0	150
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WHAT TYPES OF ASSESSMENT AND FEEDBACK CAN I EXPECT?

Assessments

The assessment consists of a written assessment (three hours) and Objective Structured Clinical Examinations (one hour). Questions will test your critical and evaluative understanding, clinical recognition skills, ability to differentially diagnose and application of knowledge.

Assessment pattern:

Assessment component	Assessment type	Weighting	Minimum qualifying mark	Pass/Fail?
MCQ	Written Exam	30	50	N/A
Visual recognition and interpretation of clinical signs	Written Exam	10	50	N/A

Patient management case scenarios	Written Exam	10	50	N/A
Objective Structured Clinical Examinations (OSCEs)	Practical/Stations exam	50	50	N/A

*Note that 50% must be obtained in each of the three components of the written exam in order to pass the module

**Note that an overall mark of 50% must be obtained in the OSCEs, and 4 out of 6 stations must be passed in order to pass the module

Resit Provisions

If the Assessment Board for the Programme requires that a resit be conducted then you should normally resit any component where the component pass mark has not been reached, but the component mark will be capped at 50% irrespective of the original/resit component marks. The marks gained for the rest of the components will stand.

Assessment criteria

Assessment Criteria are descriptions of the skills, knowledge or attributes you need to demonstrate in order to complete an assessment successfully and Grade-Related Criteria are descriptions of the skills, knowledge or attributes you need to demonstrate to achieve a certain grade or mark in an assessment. Assessment Criteria and Grade-Related Criteria for module assessments will be made available to you prior to an assessment taking place. More information will be available from the module leader.

Feedback on assessment

Following an assessment, you will be given your marks and feedback in line with the Assessment Regulations and Policy. More information on the timing and type of feedback that will be provided for each assessment will be available from the module leader.

Assessment Regulations

The Pass mark for the module is 50%. Any minimum qualifying marks for specific assessments are listed in the table above. The weighting of the different components can also be found above. The Programme Specification contains information on what happens if you fail an assessment component or the module.

INDICATIVE READING LIST

Bennett, A.G. and Rabbetts, R.B. (2007) Clinical visual optics (4th Edition). Oxford: Butterworth-Heinemann

Cantania, L.J. (2007) Primary care of the anterior segment (3rd Edition). Oxford:

London: Appleton & Lange

Denniston, A. and Murray, P. (2009) Oxford Handbook of Ophthalmology. (1st Edition). Oxford: Oxford University Press.

Evans, B. (2007) Pickwell's Binocular vision anomalies (5th Edition). Oxford: Butterworth-Heinemann

Jackson, T. L. (2007) Moorfields Manual of Ophthalmology. London: Mosby.

Kanski, J.J. (2010) Signs in ophthalmology: Causes and differential diagnosis. London: Mosby.

Kanski, J.J. and Bowling, B. (2011) Clinical ophthalmology: a systematic approach (7th Edition). Oxford: Butterworth-Heinemann.

Leigh, R.J. and Zee, D.S. (2006) The Neurology of Eye Movements: Oxford: Oxford University Press

Rowe, F. (2012) Clinical Orthoptics. [e-book] (3rd Edition). Oxford: Wiley-Blackwell. Available through City University Library <http://www.city.ac.uk/library/>

Standing, S. (ed) (2008) Gray's Anatomy - The anatomical basis of clinical practice. 40th ed. London: Elsevier.

The Wills Eye Institute (2009) The Wills Eye Manual: Office and Emergency Room Diagnosis and Treatment of Eye Disease. 5th ed. New York: Lippincott Williams and Wilkins.

Notes relating to each lecture are provided on-line. Individual lecture notes also specify recommended further reading (including journal articles and research reports).

Version: 1.0

Version date: March 2015

For use from: 2015-16

CODES

HESA Code	Description	Price Group
106	Anatomy of Physiology	B

JACS Code	Description	Percentage (%)
B510	The study of the principles and techniques for examining, diagnosing and treating conditions of the human visual system	100