



MODULE SPECIFICATION

Academic Year (student cohort covered by specification)	2020-21
Module Code	3403
Module Title	Childhood Eye Disease and Ocular Infections
Module Organiser(s)	Clare Gilbert; Aeesha Malik; Victor Hu
Faculty	Infectious & Tropical Diseases
FHEQ Level	Level 7
Credit Value	CATS: 15 ECTS: 7.5
HECoS Code	100261:100265 (1:1)
Term of Delivery	Term 2
Mode of Delivery	For 2020-21 this module is delivered online. Teaching will comprise a combination of live and interactive activities (synchronous learning) as well as recorded or self-directed study (asynchronous learning).
Mode of Study	Full-time
Language of Study	English
Pre-Requisites	None
Accreditation by Professional Statutory and Regulatory Body	None
Module Cap (Maximum number of students)	25 (numbers may be capped due to limitations in facilities or staffing)
Target Audience	This module is compulsory for MSc Public Health for Eye Care. It is suitable for Ophthalmologists; Optometrists; Eye Care Programme Managers and other senior health workers involved in delivery of eye care services.
Module Description	The module covers blinding eye conditions of children and ocular infections, highlighting the public health strategies for control.
Duration	5 weeks; 2.5 days per week
Timetabling slot	C1
Last Revised (e.g. year changes approved)	October 2020



Programme(s)	Status
This module is linked to the following programme(s)	
MSc Public Health for Eye Care	Compulsory

Module Aim and Intended Learning Outcomes

Overall aim of the module
<p>The overall module aim is to:</p> <ul style="list-style-type: none"> Equip students with knowledge and skills so that they can improve the control of blinding eye diseases in children and of ocular infections in their work setting.

Module Intended Learning Outcomes
<p>Upon successful completion of the module a student will be able to:</p> <ol style="list-style-type: none"> Describe the epidemiology of conditions that can give rise to visual loss in children, focusing on low- and middle-income countries; Describe the epidemiology of ocular infections, focusing on low- and middle-income countries; Critically evaluate preventive and therapeutic strategies for the control of childhood visual loss and blindness (e.g. from corneal scarring, retinopathy of prematurity, cataract, refractive errors) and ocular infections (e.g. due to trachoma, onchocerciasis, HIV, leprosy, and infective keratitis); Design a program for control of one condition by applying what they have learnt to their own work situation.

Indicative Syllabus

Session Content

The module is expected to cover the following topics:

- Blinding eye diseases in children
- The epidemiology of the following groups of conditions:
 - preventable conditions that can lead to corneal blindness e.g. vitamin A deficiency, measles infection, ophthalmia neonatorum and harmful tradition eye remedies;
 - treatable conditions that require early diagnosis and treatment e.g. cataract, retinopathy of prematurity and refractive errors;
 - management of children with low vision.
- Strategies for control of the major blinding eye diseases of children.
- How to assess needs, identify priorities for control and plan programmes.

Ocular infections:

- The epidemiology of the following conditions:
 - Trachoma;
 - Microbial keratitis;
 - Onchocerciasis;
 - Leprosy;
 - HIV/AIDS and associated infections and malignancies;
 - Infectious uveitis.
- Community orientated strategies /programmes for control (trachoma and onchocerciasis), including assessment and planning.

Teaching and Learning

Notional Learning Hours

Type of Learning Time	Number of Hours	Expressed as Percentage (%)
Contact time	50	33.3
Directed self-study	15	10
Self-directed learning	35	23
Assessment, review and revision	50	33.3
Total	150	100

Student contact time refers to the tutor-mediated time allocated to teaching, provision of guidance and feedback to students. This time includes activities that take place in face-to-face contexts such as lectures, seminars, demonstrations, tutorials, practical classes, project supervision

as well as where tutors are available for one-to-one discussions and interaction by email. Student contact time also includes tutor-mediated activities that take place in online environments, which may be synchronous (using real-time digital tools such as Zoom or Blackboard Collaborate Ultra) or asynchronous (using digital tools such as tutor-moderated discussion forums or blogs often delivered through the School's virtual learning environment, Moodle).

The division of notional learning hours listed above is indicative and is designed to inform students as to the relative split between interactive (online or on-campus) and self-directed study.

Teaching and Learning Strategy

The teaching and learning strategy for eye conditions in children (first part of the module) and ocular infections (second part of the module) is based on a combination of interactive lectures, individual or group work with presentations and discussion, quizzes and short answer questions. Sessions will entail critically reviewing relevant publications and summarising the findings for discussion, for example, and identifying strategies for control of the major blinding eye diseases and the level in the health system at which they can be implemented. Sessions will also cover the planning steps required to bring the strategies together into a programme for control. During the module students will select one blinding eye disease of children or an ocular infection, for their assessment.

Assessment

Assessment Strategy

The assessment for this module has been designed to measure student learning against the module intended learning outcomes (ILOs) as listed above. Formative assessment methods may be used to measure students' progress. The grade for summative assessment(s) only will go towards the overall award GPA.

The assessment for this module will be online.

1. Coursework – Essay (70% weighting) students will select one cause of childhood visual loss OR one ocular infection relevant to their own situation, and write an essay on how to implement control strategies. Students can use tables, flow charts, bullet point lists, etc. Max 2000 words excluding references. Max 25 references.

For this selected condition:

- Students have to describe the epidemiology of the condition in a community of their choice, focussing on the prevalence and risk factors, and likely magnitude. If there are no data for their country, students should select the data that they think to be the most relevant.
- Students have to describe possible strategies for control (i.e. for primary, secondary and tertiary prevention), outlining:



Assessment Strategy

- a. which are feasible in that setting, and
 - b. explaining why
 - Students have to describe how the interventions that are feasible in their setting could be integrated into the existing health system and services. Students have to think through what could be implemented:
 - a. within the community
 - b. at primary level
 - c. at secondary level
 - d. at tertiary level of service delivery
 - Highlight what some of the challenges might be
2. Short answer questions (timed test)- (30%).

Summative Assessment

Assessment Type	Assessment Length (i.e. Word Count, Length of presentation in minutes)	Weighting (%)	Intended Module Learning Outcomes Tested
Coursework	Word count: 2,000 maximum excluding references References: maximum of 25	70	4
Timed Test (in-module test e.g. MCQ)	1.5 hrs	30	1, 2, 3

Resitting assessment

Resits will accord with the LSHTM's [Resits Policy](#)

The Resit assessment will be the same assessment type as the first attempt (see previous table). The resit assessment will be an essay as outlined above but which addresses a different eye condition.



Resources

Indicative reading list

The vision impaired child

Dale N, Salt A. Early support developmental journal for children with visual impairment: the case for a new developmental framework for early intervention. *Child: Care, Health and Development*. 2007;33(6):684-690. doi:10.1111/j.1365-2214.2007.00798.x

Epidemiology

Gilbert C, Foster A, Negrel A-D, Thylefors B. Childhood blindness: A new form for recording causes of visual loss in children. *Bulletin of the World Health Organization*. 1993;71(5):485-489. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2393473/>.

Retinopathy of prematurity

Gilbert C. Retinopathy of prematurity: A global perspective of the epidemics, population of babies at risk and implications for control. *Early Human Development*. 2008;84(2):77-82. doi:10.1016/j.earlhumdev.2007.11.009

Vitamin A deficiency

Thurnham D. Vitamin A supplementation. Beneficial effects on mortality and morbidity in children aged six months to five years, *Sight and Life*. 2011;25(3):38-49-. <https://sightandlife.org/>.

Measles

Semba RD, Bloem MW. Measles blindness. *Survey of Ophthalmology*. 2004;49(2):243-255. doi:10.1016/j.survophthal.2003.12.005

Rubella

Grant GBR. Global progress toward rubella and congenital rubella syndrome control and elimination. *Morbidity and Mortality Weekly Report (MMWR)*. 2015;64(37):1052-1055-. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5726242/>.

Cataract

R J C Bowman. How should blindness in children be managed? *Eye*. 2005;19(10):1037-1043. doi:10.1038/sj.eye.6701988



Refractive errors and school eye health

Rudnicka AR, Kapetanakis VV, Wathern AK, et al. Global variations and time trends in the prevalence of childhood myopia, a systematic review and quantitative meta-analysis: implications for aetiology and early prevention. *British Journal of Ophthalmology*. 2016;100(7):882-890. doi:10.1136/bjophthalmol-2015-307724

Primary eye care

Mafwiri MMK. A pilot study to evaluate incorporating eye care for children into reproductive and child health services in Dar-es-Salaam, Tanzania: a historical comparison study, *BMC Nursing*. 2014;13(1):15-. doi:10.1186/1472-6955-13-15

Low vision care for children

van Dijk KK. Low Vision Care in Africa: Practical Approaches to Clinical Services, Educational Engagement and Planning. KCCO; 2014. <https://www.bicomalawi.org/resource/>.

Trachoma

Taylor HR, Burton MJ, Haddad D, West S, Wright H. Trachoma. *The Lancet*. 2014;384(9960):2142-2152. doi:10.1016/S0140-6736(13)62182-0

Corneal Infection

Prajna NV, Krishnan T, Mascarenhas J, et al. The Mycotic Ulcer Treatment Trial: A Randomized Trial Comparing Natamycin vs Voriconazole. *JAMA Ophthalmology*. 2013;131(4):422-429. doi:10.1001/jamaophthalmol.2013.1497

Onchocerciasis

Johnson GJ, Hopkins A. Onchocerciasis. In: *The Epidemiology of Eye Disease* / Edited by Gordon J. Johnson ... [et Al.]. 3rd ed. London: Imperial College Press; 2012:487-507. <https://contentstore.cla.co.uk/secure/link?id=b97d4e14-0cef-e811-80cd-005056af4099>.



Teaching for Disabilities and Learning Differences

The module-specific site on Moodle gives students access to lecture notes and copies of the slides used during the lecture. Where appropriate, lectures are recorded and made available on Moodle. All materials posted on Moodle, including computer-based sessions, have been made accessible where possible.

LSHTM Moodle is accessible to the widest possible audience, regardless of specific needs or disabilities. More detail can be found in the [Moodle Accessibility Statement](#) which can also be found within the footer of the Moodle pages. All students have access to “SensusAccess” software which allows conversion of files into alternative formats.

Student Support Services can arrange learning or assessment adjustments for students where needed. Details and how to request support can be found on the [LSHTM Disability Support pages](#).