1) What is a learning outcome?

A learning outcome is a description of what a trainee must be able to do, or know, or some other professional attribute to be gained after they have been involved in teaching or learning. The new curriculum identifies 3 broad areas of professional clinical practice each of which is associated with a number of learning outcomes. The three areas of clinical practice are:

- What an ophthalmologist is able to do
- How the ophthalmologist approaches their practice, and
- The ophthalmologist as a professional

Under these 3 headings is a total of 13 categories ("domains") – in essence these are high level learning outcomes under which the detailed outcomes are categorised. The 13 domains are:

- To assess a patient clinically
- To order and interpret appropriate special investigations
- To manage a patient
- To perform practical skills
- To perform surgical skills
- To engage in health promotion and disease prevention
- To communicate effectively
- To manage information effectively and efficiently
- With an understanding of basic and clinical sciences
- With appropriate attitudes, ethical understanding and understanding of responsibilities
- With appropriate decision making skills, clinical reasoning and judgment
- With an appreciation of their role in the health service, and
- With an aptitude for personal and professional development

These all appear to be admirable qualities but how can they be turned into a training programme?

Within in each of the domains there are several more detailed learning outcomes (as you might expect they are referred to as level 2 outcomes). For example, Domain 1, 'to be able to assess a patient clinically', consists of the following detailed learning outcomes:

- Take a directed clinical history
- Assess vision
- Assessment and interpretation of visual fields by confrontation
- Demonstrate and teach the appropriate use of the Amsler chart to patients
- Performance of a complete external eye examination
- Examination of the pupils and perform diagnostic pharmacological tests
- Perform a cover test and assess ocular motility
- Measure intraocular pressure using applanation tonometry
- Perform Slit lamp biomicroscopy of the anterior segment using appropriate illumination techniques and stains, and diagnostic contact lenses.
- Examine the fundus using appropriate techniques
- Perform a directed general medical examination taking into account the associations between systemic and ophthalmic diseases
- Perform a basic paediatric and developmental examination taking into account the associations between systemic and ophthalmic diseases

- Perform a directed neurological examination taking into account the associations between systemic and ophthalmic diseases
- Examine the neck taking into account the associations between systemic and ophthalmic diseases
- Examine the skin and joints taking into account the associations between systemic and ophthalmic diseases
- Formulation of a differential diagnosis
- The assumption is that if a trainee is competent in all of the above, then they will be able to assess a patient clinically. Each of the other 12 domains has several more detailed learning outcomes (there are 181 in all)

2) I still don't see how they constitute a curriculum that trainers or trainees can use.

Having defined what the learning outcomes are, it is possible to ask the questions:

- What does a trainee need to learn in order to be competent in, for example, the performance of a complete external eye examination?

The answer to this question enables a trainee to plan their own learning and better use the opportunities for learning that are available.

- How can a trainer help a trainee become competent so that they can, for example, perform a cover test and assess ocular motility?

The answer to this question helps trainers to plan both formal and informal teaching sessions.

- How can a trainee be assessed so that it is clear that they are either competent or incompetent in, for example, the performance of slit lamp biomicroscopy of the anterior segment using appropriate illumination techniques and stains, and diagnostic contact lenses?

The answer to this question enables trainee's to provide appropriate information for the annual review of competence progression ARCP and for the College examiners to devise valid examinations. The advantage of a learning outcomes curriculum is that trainers, trainees and examiners all know what must be known, what skills must be acquired, which attitudes must be adopted during training and crucially, how they will be assessed.

3) Where have these learning outcomes come from?

The 13 domains have been adapted from the Dundee Medical School curriculum, which has been well evaluated and published. They can be easily related to the GMC's Good Medical Practice. The detailed learning outcomes have been adapted from the old BST and HST curricula and refined by the Royal College of Ophthalmologists Education Committee.

- Why are there some aspects of my clinical practice that are missing from these learning outcomes?

The learning outcomes are intended to answer the following questions;

- What must all ophthalmologists be able to do after CCT?
- How must all ophthalmologists approach their practice after CCT?
- What are the professional attributes that all ophthalmologists must display after CCT?

It is important to remember that gaining a CCT and getting a consultant job does not indicate that learning and professional development have come to an end. All ophthalmologists have different clinical practices. Some are highly specialised. There are, however, certain minimum attributes that identify us all as ophthalmologists. There are certain minimum competences that we all must possess, at least at the start of a consultant career. If an aspect of clinical practice seems to be missing from the curriculum then the reasons may be:

- It reflects sub-specialty ophthalmic practice rather than what a generalist would do, e.g. it is not expected that all ophthalmologists must perform retinal detachment surgery
- Not all ophthalmologists can reasonably be expected to be competent in that area of practice, e.g. whilst we must all be able to interpret a visual field test result it is not expected that all ophthalmologists must be competent in performing, for example, a Goldmann visual field test
- It is implied by the learning outcome but not explicitly mentioned e.g. competence in the use of an indirect ophthalmoscope is not explicitly stated but it is implied by the outcome, "Examine the fundus using appropriate techniques".

4) So if the curriculum is defining a minimum, is the training being 'dumbed down'?

The learning outcomes represent a core-curriculum for postgraduate training in ophthalmology that is essential for a CCT. All ophthalmologists in training must achieve an appropriate standard of competence in each of the 180 detailed learning outcomes in order to gain a CCT in ophthalmology. It is anticipated that the vast majority of the core outcomes will often be achieved in 6 years, leaving 12 months for the achievement of further trainee-selected learning outcomes. This will enable a trainee to focus on a particular aspect of ophthalmological practice and therefore be able to match the job description of a typical UK consultant ophthalmologist post in the UK.

The curriculum identifies for the first time the standard of achievement of a large number of competencies that constitute ophthalmic practice. It does not diminish the high standards of clinical knowledge, skills or attitudes expected of a CCT holder.

5) Will we be producing clones?

Far from it. If a trainee completes training to the satisfaction of her or his trainers they will be competent to practice as a consultant ophthalmologist. As the outcomes of learning are defined and assessed we can be more confident that trainees from different deaneries will have the same competencies. In addition they will have developed more-refined skills in one or more selected areas of practice. This will begin during the core curriculum training but will be concentrated during the final year.

6) Why does the Curriculum not define minimum numbers of procedures? All I can find is "indicative" numbers for cataract surgery.

Because there is evidence to show that competence increases with increasing numbers of cataracts performed, we have been allowed to insert indicative numbers for cataract surgery. This evidence does not exist for other types of surgery yet; therefore the College cannot present evidence to the GMC to include numbers for other surgical procedures. However the College does have some suggested numbers in the Guide to Delivery of OST..

7) The previous curricula identified 7 sub-specialties to be completed. Is this no longer the case?

Modular training in different sub-specialties has many strengths; particularly during HST. Whilst the curriculum no longer specifies sub-specialty essential experience it is anticipated that many programme directors and deanery specialty training committees will wish to maintain a modular approach. The curriculum allows for more flexibility within programmes and encourages trainees and trainers to agree the most appropriate way of meeting the learning outcomes.

8) How does all of this fit into College examinations?

The College examination structure is as follows: part 1 FRCOphth examination (to be passed by the end of year 2), a Refraction Certificate to be passed by the end of Year 3, and part 2 FRCOphth (to be passed by the completion of training).

9) What about the ARCPs?

Trainees need to maintain a portfolio of achievement for their Annual Review of Competence Progression (ARCP). Recommended target stages of achievement of learning outcomes provide a basis for monitoring progress at ARCP. The curriculum includes assessment tools appropriate to each learning outcome, for trainers and trainees to use.

10) Is this just a box-ticking exercise?

Ticking boxes (in addition to other ways of indicating achievement of a learning outcome) will be part of the assessment of trainees. Structured assessment that is as valid and reliable as possible is important in training. Where training and supervision was previously adequate there should be no need for a significant increase; it will just be more explicit.

11) If I am starting in OST 2 (or OST 3) do I need to undertake WBAs for earlier OST years?

If you have been appointed at OST 2 (or 3) levels you have already demonstrated your achievement of year 1 (and 2) competencies so you don't need to. You can add the evidence/documentation to the e-portfolio as a resource if you wish to have a complete e-portfolio but this is not compulsory.

12) What are the consequences if a trainee is given a fair or poor WBA outcome?

Trainees are encouraged to undertake assessments of their competence well before the target year of achievement published in the curriculum so they can receive valuable feedback about their performance and progress. It is therefore entirely expected for trainees to have a number of poor or fair areas of performance in the relevant workplace based assessment (WBA) forms. Under normal circumstances these weaker areas will be addressed and subsequent assessments will be satisfactory. If a trainee has not received satisfactory assessments in one of the WBA areas identified for achievement by a specified year of training, this must be addressed at the Annual Review of Competence Progression (ARCP) and one of the following outcomes must be agreed:

1. Achieving progress and the development of competencies at the expected rate

Unsatisfactory or insufficient evidence – trainee required to meet with the panel:

2. Development of specific competencies required additional training time not required
3. Inadequate progress by the trainee – additional training time required
4. Trainee released from training programme with or without specified competencies
5. Incomplete evidence presented – additional training time may be required

See Gold Guide on the Specialty Training website

13) I have previously passed the MRCOphth Part II including the refraction section; do I still have to pass the WBA (CRSRet) for learning outcomes PS2?

Yes CRSRet assessments should be undertaken by all trainees at the relevant stage of Ophthalmic Specialist Training (usually OST year 3). MRCOphth Part 2 does however excuse you from taking the Refraction Certificate.

14) When should I complete the Multi-source Feedback (MSF) assessment?

Generally the MSF should be completed 6-8 weeks before your Annual Review of Competence Progression (ARCP). It is a good idea to contact your Deanery and obtain information on its ARCP plans and then time your MSF requests well in advance.

15) What document will the College want to receive after an Annual Review of Competence Progression (ARCP)?

The Deanery should send the College a copy of the ARCP outcome document; however it would be useful for the trainee to also send a copy to the College. A copy of any Form Rs issued to a trainee should also be sent to the College.

16. The OST Curriculum requests 2 of each assessment e.g. Learning Outcome CA4 requires 2 WBAs (CRS4) in OST1 training, do both assessors have to be consultants?

There is no stipulation that either of the assessors must be consultants, it is recommended that you speak to your College Tutor before choosing assessors who are not consultants. At the very least your CT will have to inform the College so that any non-consultant assessors can be added to the College's approved list. It is essential for all assessors to have been trained and accredited to satisfy the requirements of the GMC.

All assessors must only assess within their sphere of knowledge and expertise – to break this rule would be a serious probity issue.

Trainees need two satisfactory assessments on each topic. It is recommended that these are undertaken by two different assessors.

Assessments have a dual purpose. In many ways the most important purpose is to ensure helpful, constructive, formal feedback is given to trainees on their performance. Of course, they also provide evidence to the ARCP panel to aid their decision as to whether the trainee is making satisfactory progress and this clearly requires that they are carried out in a fair and honest manner.

17) How do trainee's progress through OST?

Trainees obviously need to satisfactorily complete all the required Learning Outcomes for each stage of training. Whilst WBAs are very important they are not the sole method of judging progress. There must be triangulation of evidence of satisfactory progress. The decision on whether a trainee is at a suitable level of competence to progress to next stage of training (whether already in run-through or applying from an FTSTA post into a run-through post) is taken by the ARCP panel. The Gold Guide indicates the sort of evidence to be considered (section 7.40) which includes:

WBAs
Portfolio and logbook
Audit
Research
Critical incidents

Educational Supervisor reports
Clinical Supervisor reports

The RCOphth gives a checklist for ARCPs in the Curriculum for OST.

18) From ST3 onwards, if I am being assessed on microsurgical skills of some sort for each stage (indicative year) (e.g. SS5 surgery for raised IOP, SS6 repair trauma, SS4 cataract surgery) do I need to complete separate OSATS1 forms for generic microsurgical skills (SS1)?

Yes. The purpose of the SS1 Learning Outcome is to help ensure that trainees receive a broad spread of surgical instruction and experience in order to build up a good range of transferable skills. This should allow them to perform safely across a wide range of potential surgical scenarios, especially when on-call for trauma in future years. It also allows for formal assessment of surgical procedures which are not actually compulsory in the Curriculum, eg tarsorrhaphy.

For this Learning Outcome you do NOT have to perform a complete procedure – so look out for surgical procedures of which you have the opportunity to perform only a (significant) part, where you utilise different skills from those you have had assessed previously
Several Surgical Skills (e.g. biopsy, cantholysis) are only compulsorily assessed twice between ST4 and ST7; consider having further assessments of them under this heading to show progression of skills

You should remember that assessment of surgical skills consists of more than just the OSATS form – it includes portfolio entries (including logbook and audit evidence which in turn will help inform your educational supervisor's report) and ultimately the FRCOphth Part 2 Exam as well).

(See also the Study Guide for SS1)

(NB THIS ADVICE WAS CHANGED IN 2011; PRIOR TO THAT IT WAS ACCEPTABLE FOR TRAINEES TO USE OSATS ASSESSMENTS TOWARDS SS1 WHICH HAD ALSO BEEN ALLOCATED TO OTHER LEARNING OUTCOMES. THE NEW ADVICE IS NOT TO BE APPLIED RETROSPECTIVELY TO STAGES OF TRAINING ALREADY COMPLETED.)

19) What is the status of surgical number requirements for trainees in Ophthalmic Specialist Training?

The surgical numbers mentioned in the study guide and the Guide to the Delivery of OST are indicative minimum numbers for trainees to achieve during OST. As such they are intended to give some idea of how many cases the average trainee is likely to need to do to achieve an acceptable standard of surgery. Some trainees may learn quicker and some may be slower, and no-one will suffer by doing more! Competence should be judged on a triangulated basis, taking into account sequential OSATS assessments, audit (very important), supervisors' reports and logbook (including case-mix).

20) When does the tally of surgical numbers start if a trainee began OST in ST3?

The suggestion is for a minimum of 50 cases during ST1 and ST2 and a minimum total of 350 for ST1-7. If a trainee started in ST3 he/she can still count procedures performed prior to ST3 entry.

21) If I am on OOPE or Maternity leave, do I have to complete all the WpBAs for my stage of training?

Some trainees will have time out of programme which is counted towards clinical training, even though they are not involved in clinical work. Examples include 6 months' OOPE (out of programme

experience), 3 months' maternity leave or trainees in academic training posts. It may be more difficult for these trainees to complete all the WpBAs (work place based assessments) required for their stage of training. (The 3 months maternity leave inclusion is not 'of right' and should not be assumed to be so. This should be awarded after the trainee has returned and is seen to have continued to keep up with the WpBAs and other training issues.)

Usually trainees have at least 6 months' notice of such events, so they should try and complete as many WpBAs as possible before their time out.

If not all WBAs for the stage of training are completed by the ARCP, panels can still give an outcome 1 (progression to the next stage of training) if there is sufficient evidence of satisfactory progress. However the panel should record that all WpBAs for the current year and the following year must be completed by the next ARCP.