

## Assessment of Ob-Gyn trainee's competence

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### Abstract

The specialist training system in Obstetrics and Gynaecology is defined by the instructions, rules and recommendations of the European Board and College of Obstetricians and Gynaecologists (EBCOG). This article reviews the basic process and tools in evaluating the competence of the trainees during their training period. It pays special attention to the quality aspects which should be achieved before the trainee's performance is approved at a specialist level.

**Key words:** Competence, evaluation, logbook, trainees, training in Obstetrics and Gynaecology.

### Introduction

The specialist training system in Obstetrics and Gynaecology including quality and quantity requirements are defined by EBCOG, the European Board and College of Obstetricians and Gynaecologists (EBCOG, 2012) under the auspices of the Union Européenne des Médecins Spécialistes (UEMS). In Finland also the instructions and rules given by the national authorities like the Ministry of Social and Health affairs and the Ministry of Education as well as national universities with medical faculties are to be followed (Turku University, 2011a).

The postgraduate period of Ob-Gyn training requires the trainees to be actively involved in overall and self-evaluation as well as development of the training program according to the Finnish legislation (FINLEX, 1998). The assessment of the overall competence is mainly based on the EBCOG Log Book, which has been in use in Europe since the 1990ies (EBCOG, 2005). This Log Book is considered an important tool in training and its assessment within the Ob-Gyn speciality. Cumulative numbers of procedures and interventions, other activities performed and proofs obtained during the training are completed in the Log Books and transferred into the Portfolio, which is a folder where all documents are kept until the end of the training (Figure 1). The

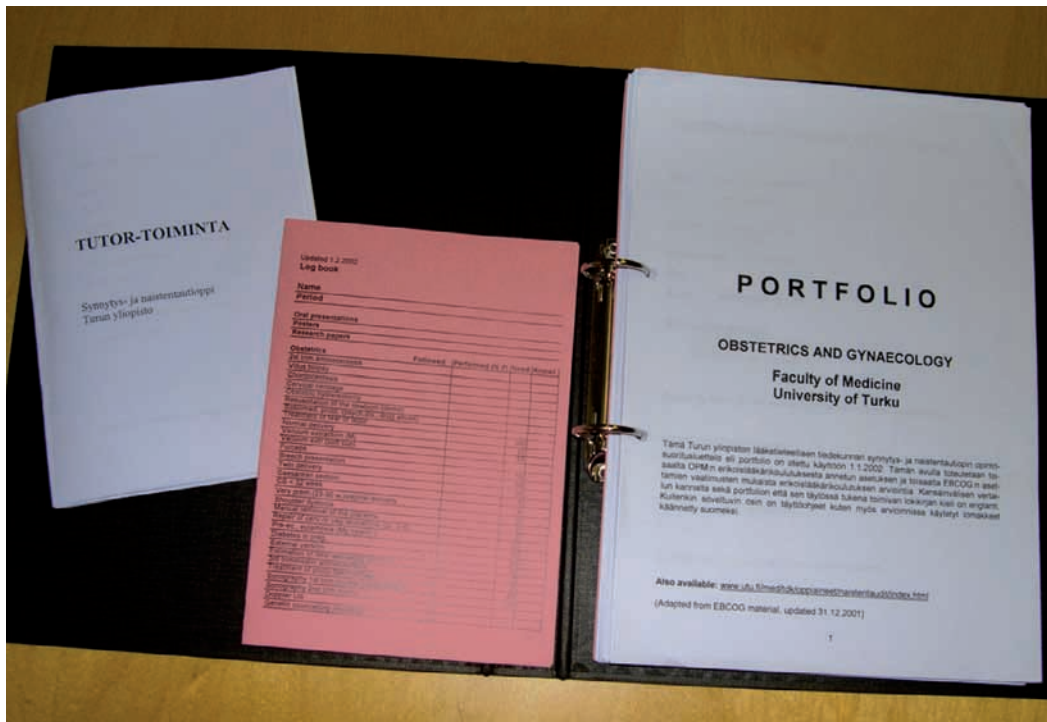
Portfolio serves as a summative document of the training.

The free movement of professionals in Europe demands uniform quality of the doctors. The national organisations and universities as well as the training hospitals should follow the EBCOG requirements in the evaluation of the individual trainees as well as the total training process. This should be a natural part of daily and weekly activities just as the doctor's other assignments in the hospital. In practice, most of the basic assessment responsibility lies on the supervisors, the mentors and the trainers. They should finally guarantee good professional quality of trainees, in order to provide optimal health care in the speciality, and thus be competent to practice independently, properly and safely without supervision.

In this article we review the EBCOG basic process and tools in evaluating the competence of the trainees during their training period in Obstetrics and Gynaecology, reflecting our own experience of the assessment in Finland.

### EBCOG Log Book, Portfolio and Ob-Gyn curriculum

The EBCOG Log Book and Portfolio has been in use in Europe since 1990ies (EBCOG, 2005) and the



**Fig. 1.** — EBCOG Log Book (middle), Portfolio (right) and the Finnish guide for tutoring (left) used in training of Obstetrics and Gynaecology in Turku University of Finland (Turku University, 2011b).

latest updated version is from June 2005. In Finland they have been slightly modified for national purposes, for example, breast diseases are not included in the curriculum (Turku University, 2011b).

The EBCOG Log Book includes all the trainee's potential interventions and procedures, other activities (congresses, lectures, and research), knowledge and adaptation of various patient treatments options, as well as legal and ethical aspects (EBCOG, 2005). These achievements are collected in the trainee's Portfolio. This should take place during the post-graduate period, which in total comprises a minimum of five years' full time training in an approved training programme. At least four years must be spent in an Ob-Gyn department. In the curriculum general Gynaecology and Obstetrics should comprise at least 18 months. Additional experience should be gained in reproductive endocrinology, gynaecological oncology, prenatal medicine, urogynaecology and both gynaecological and obstetrical ultrasound, as set out in the EBCOG recommendations (EBCOG, 2005). A maximum of 1 year in relevant research or in another speciality e.g. abdominal surgery, urology, anaesthesia and neonatal medicine, may be included in the total curriculum. In Finland the total curriculum is defined as 6 years, including 9 months' mandatory service in health-care centres and 6 months in (abdominal) surgery (Turku University, 2011a).

Ob-Gyn training should involve outpatient and inpatient management and emergency Ob-Gyn care in on-call duties. Targets are decided separately for each of the 5 years in a study plan, which the trainee and the tutor/mentor commonly agree upon. The evaluation of clinical and technical skills achieved should be checked at least annually by the tutor or trainer. The targets consist of patient assessment, surgical-, obstetrical- and ultrasound procedures, assessment of knowledge, attitudes and fulfilment of tasks, as well as a cumulative list of scientific meetings, courses attended, papers presented at scientific meetings and scientific publication(s) by the trainee. The latter is not mandatory but highly recommended.

### Requirements

The trainees must participate in the care of out- and inpatients hospital activities and on call duties day and night, perform deliveries and gynaecological operations, participate in educational activities and the teaching of other health professionals, as well as participate in audits and in clinical and basic research. The amount of experience required in individual areas of training is indicated by the numerical recommendations which give a guideline for the training (Table I). The list is often modified for national purposes, but has to reach EBCOG minimum (Figure 2).



**Table II.** — Definitions used in training in Obstetrics and Gynaecology in Finland 2011.

Trainee = resident, registrar, young doctor in training
Trainer = senior doctor, specialist who works with trainee every day and judges the performance
Tutor = senior colleague taking care of the well being of the trainee during training
Mentor = supervisor i.e. academic person, director of the whole training programme
Log Book = leaflet summarizing all the achievements performed by the trainee
Portfolio = folder collecting all the material (Log Book, meetings, lectures, congresses, research etc.), achieved during training
Skills = ability to perform procedures, interventions, operations etc
Competence = graded quality of performance

The term tutor and mentor seem to be somewhat controversial: the former is used either as the local responsible trainer or the one who takes care of the professional well-being of the trainee, and the latter is evaluating the performance - or even vice versa! It should be decided which expression is sufficiently descriptive for this senior doctor. In Finland the list of definitions in use (Table II) defines the mentor as a supervisor i.e. the Academic Programme Director. The tutor takes care of the overall well-being of the trainee, while the trainer evaluates the performance of the trainee and contributes to the practical, clinical and scientific instructions of trainees. This is in accordance with the EBCOG glossary (EBCOG, 2005).

### Competence grading

During training, the trainees should perform the minimum number of diagnostic and therapeutic procedures and technical activities (Table I) under senior supervision, but towards the completion of the training period the focus should be on performing them independently. Formal assessment during training should be done at least once a year and include three types (EBCOG, 2005): 1. Self assessment; where the trainees report their performances in a Log Book, 2. Formative assessment; where the trainers report the trainee's competence in performing clinical tasks and the trainee's interaction with patients and colleagues as well as other health care professionals and 3. Summative assessment; where intermediate evaluation during the training, rather than at the end, should focus on and identify shortcomings and weaknesses that requires improvements and if necessary, to recommend even a change of speciality. During the training, senior doctors are expected to regularly evaluate the number of procedures and interventions of the trainees. If these are below the minimum requirements, for example, if a lack of gynaecological procedures is evident, one should increase the operating days for the trainee. Other methods are to offer the use of simulators models,

which are currently very good options to reach basic operating skills (Molinas & Campo, 2010).

Regarding the competence of performed procedures EBCOG Log Book divides them into 5 scores: 1 passive attendance, assistance, 2 needs close supervision, 3 able to carry out procedure under some supervision, 4 able to carry out procedure without supervision and 5 able to supervise and teach the procedure. In practice only the score 4 and 5 performance are approved at a specialist level of quality. In many hospitals these are recognized and accepted by a senior's signature.

According to the EBCOG Syllabus (EBCOG, 2005); the knowledge of many Ob-Gyn aspects should be achieved either as basic-, detailed- or comprehensive understanding of topics used in the clinical practice. In basic sciences these include anatomy, physiology and endocrinology, genetics, embryology, pathology, pharmacology, microbiology and immunology as well as statistics and epidemiology. In Gynaecology and Obstetrics aetiology, prevention, diagnostics, staging, indications as well as complications of certain diseases are to be understood. Furthermore, ethics, law and relevant public health issues should be included. Objective- and confidence- based evaluation of these matters are, however, rather difficult, but with growing experience of seniors (tutors, trainers and mentors) it is not impossible.

### Quantity versus Quality

The number of procedures achieved (quantity) is relatively easy to follow, but the quality matters in education are more disposed to subjectivity. The competence levels ranges from observation (level 1) to teaching (level 5), but not all skills require higher levels of competence. In gynaecology the so called "musts" in performance, with the ability to even teach them, include curettage, insertion of IUD/implants, operation for Bartholin's cyst and vasectomy (if that is part of gynaecological practice in the country). In obstetrics these include spontaneous

delivery including episiotomy and its repair, vacuum extraction, management of a retained placenta, assessment of the fetus by CTG and 1<sup>st</sup> and 2<sup>nd</sup> trimester termination of pregnancy, in ultrasound it includes examinations in early pregnancy for viability as well as for chorionicity. The procedures where attendance as an observer is sufficient in obstetrics are cervical cerlage, amniocentesis, chorionic-villus sampling/placental biopsy and chordocentesis. In gynaecology the only one is radical hysterectomy. Procedures which one should be able to carry out with some supervision, but not independently in gynaecology (level 3); myomectomy, vaginal hysterectomy and vaginal repairs, in obstetrics; breech delivery and external cephalic version and in ultrasound fetal morphology and Doppler flow measurements. Few others in gynaecology i.e. endometrial ablation or resection and suspension procedures are defined to need at least close supervision (level 2). All other procedures the trainee must learn to carry out independently.

### Theory and practice

The EBCOG Log Book is a continuing updating process. The Standing Committee of Training and Assessment (SCTA) will complete the new version most probably in the spring of 2012. Some of the important issues are the terminology itself and also the required minimum numbers. Also, some novel issues are to be added.

It is evident that there are very few reports on how the training is carried out in reality and what its final outcome is. The basic question is: how the requirements are fulfilled. A recent survey in Finland focused on the quantity of gynaecological and obstetrical procedures at the highest competence level which the trainees had performed during their training. It was shown that the minimum level of required interventions and procedures are achieved at a higher grade in obstetrics than in gynaecology (Mäkinen et al., 2012).

The problem of an insufficient number of gynaecological procedures achieved during the training is evidently a reflection of the overall decrease of gynaecological operations in Europe. Especially hysterectomies have been replaced by more conservative approaches, for example in the treatment of menorrhagia. The same is true for many other Ob-Gyn procedures, old therapies are replaced by new ones (e.g. curettage versus diagnostic hysteroscopy or sono-hystero-graphy, laparoscopic versus hysteroscopic sterilisation etc.). In this regard, the new simulators in ultrasound, hysteroscopy and laparoscopy are good options to the “real thing” and offer good training. These equipments help the

current lack of traditional routine operations in many teaching hospitals. Also, training with simulator models is mandatory in some European countries before being allowed to do endoscopy on patients. It appears that in the near future EBCOG should also reconsider the minimum numbers required for common procedures, esp. those for hysterectomy types.

### Discussion

Regular assessment of training in Europe should be mandatory by the trainees themselves as well as by their trainers. Tools for this purpose e.g. the Log Book and Portfolio have been free for use since the ‘90ies. In practice their use and methods in training varies remarkably in European countries and thus further and repeated guidance is needed (Meretoja & Kantanen, 2009). No consensus, however, exists on the reliability and validity of the methods used in the quality assessment of the trainees completing their training period. The need for such concrete models is well recognized worldwide in educational institutes (Baker, 2011, Fernandez Galvez, 2011).

The assessment of education and training in Obstetrics and Gynaecology should be directed towards two levels: on the one hand the system itself in teaching hospitals, and on the other hand, to the individuals performing the training. The former happens via the European rules for international or national hospital recognition, the latter mostly by the numbers collected in Log Book and Portfolio. This, unfortunately, evaluates quantity more than quality, although the procedures would be scored at high competence. So it would be useful to follow-up the subjects’ performances and/or add information about their outcome i.e. perioperative morbidity and complications of procedures and interventions (Gawande, 2002). Additionally, the evaluation by senior doctors, contemporary colleagues in training, as well as a 360-degrees evaluation and NOTSS (Non-Technical Skills of Surgeon) (Yule et al., 2006), would be helpful to give an overall impression of the trainees. In addition, clinical skills could also be evaluated by groups of senior teachers like in Sweden (Swedish Society for Doctors, 2011), but this requires extreme efforts and is not the prevailing method in many EU/EEA- countries, at least at the moment. Moreover, interaction in interview and clinical examination of the patients as well as diagnostic set-up, in decision-making, counselling, professionalism and organizing talents as well as the generic competencies like communication, management skills and collaboration, remain difficult to assess. The importance of developing suitable tools to assess these skills has been identified (Van der Lee et al., 2012).

One possibility to improve the assessment could be daily/weekly observation of the trainees by senior doctors (Fernandez Galvez, 2011). Such efforts are, however, very challenging, and this is why we should concentrate on combination of more simple, easily repeatable models (like simple 1-10 scoring), which could be used and compared among trainees and hospitals. The EBCOG Log Book, which now gives us figures for assessment, could be further developed for this purpose. Overall, good training standards are of the uppermost importance, as given also in a new EBCOG textbook of Standards of Care for Obstetrics (Mahmood, 2011). Once assessment becomes a routine practice in teaching hospitals, it is accepted and integrated properly into the other activities e.g. practical patient treatment. Both trainees and trainers are expected to respond with constructive criticism and join recommendations on how to improve the training.

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