ERCP: MINIMAL STANDARDS AND TRAINING REQUIREMENTS

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LEARNING OBJECTIVES

To understand
1. That quality in ercp is not only related to the procedure itself
2. That ercp has definitely moved to therapeutic interventions
3. That standards and guidelines are currently available
4. That adequate training will be dependent on Units credentialing, adaptation of the number of trainees, development of preclinical training methods, quality indicators and life-time competence assessment

ERCP is already a 40 years old procedure. At the beginning it was a pure diagnostic procedure evolving during the seventies and eighties to therapeutic interventions as biliary sphincterotomy, stenting, pancreatic sphincterotomy and cyst-gastrostomy. Technical improvements have exploded thanks to pioneers and companies involved in the field. The nineties have seen the development of magnetic resonance cholangio-pancreatography (MRCP) as a non-invasive challenger of ercp for diagnostic purposes. From that time and up to now, ercp became primarily therapeutic and MRCP (when available) the first choice for diagnosis and multidisciplinary therapeutic planning. With the widening range of interventions, increasing number of procedures and extension of ercp procedures outside of expert centers, questions raised during the last decade about how to assess the service provided to patients and how to adequately train the trainers and trainees and maintain their competences. a. Pre-, per- and post-ercp quality provision: Many fellows and trainees consider that ercp training is only inside of the ercp room. The reality is much more wider and includes many points before and after the procedure that must be integrated in the curriculum (see Table 1 for a non exhaustive list).

Before ercp, patient’s condition and age often lead to discussion facing a good indication (ie stones disease). It is more and more established that children and very old patients might benefit from therapeutic ercp with the same success and complication rates as middle-aged in expert hands [1, 2]. Also in pregnant women fears about fetus radiation (accepted threshold of less than 50 mGray) can be dramatically decreased by adequate shielding, collimation, use of pulsed fluoroscopy, limiting beam exposition & image acquisition and adapting patient position [3]. Balancing risks and benefits for a given indication is better evaluated in a multidisciplinary team and allows a therapeutic planning in case of ercp failure. Involving the patient and his family in the consent process with adequate information and communication on a good indication for ercp is the basis to reduce lawsuits in case of complications [4, 5]. During ercp, as far as prevention of complications is concerned, we have to deal with infections, pancreatitis, bleeding and perforation.

Recent international guidelines are available which can help reducing the occurrence of those complications [6-9]. Basic therapeutic ercp (Schutz Grade 1, see Table 2) includes selective deep canulation of the bile duct, sphincterotomy or sphincteroplasty for access, tissue sampling for pathology, stone extraction and stenting in normal anatomy. Again technical guidelines are available to achieve the best current care in this settings [10-12]. Adequate staffing of the Unit, availability of therapeutic scopes and a basic set of ancillary devices (including mechanical lithotriptor) and availability of anesthesia and recovery facilities are essential for quality provision [13, 14]. Radiation protection for both staff members and patients is an important issue which is not always taken into account. Repeated non protected exposure to Xrays
may lead to cancer, blindness, skin lesions, gonadal mutations and many others. European Union funded projects are ongoing to collect data on exposure (http://www.eman-network.eu) and provide information and education on this matter (http://www.medrapet.eu). Guidelines on endoscopy dissection are also available and should be followed and adapted according to national rules [15]. After ercp: recording of the findings and treatment should better be electronic and structured with a terminology that allows to extract data easily for research or benchmarking (see later). The latest version of Minimal Standard Terminology for Digestive Endoscopy is available on the net (http://www.worldendo.org/mst.html). Short term and long term complications should also be recorded. Finally, in case of complication, patient and family information and continuous communication is the best way to avoid misunderstandings. b. Credentialing of Units and continuing assessment: It is already known that case volume for an endoscopist is mandatory to achieve successful procedures and decrease the complications rate [17-19]. More data are now available about nationwide frequency of low volume ercp practitioners and the impact on outcomes. In North America 75% of practitioners perform < 100 ercps/yr [20] and 38% less than 50/yr [21], in Canada, UK, Sweden and Austria: 40%, 61%, 75% and 76% perform < 50 ercps/yr, respectively [22-25]. High volume practitioners and centers have lower hospital stay, less failure rate and less complications [20, 25] which might be important in terms of healthcare resources allocation and fulfillment of training programs. Therefore, some national societies tried to define the best indicators which could help setting up benchmarking for credentialing ercp units in terms of quality provision. In the US, these indicators were associated with a grade of recommendation according to EBM [26], in UK, a Global Rating Scale (GRS) was developed and implemented for accreditation of Units and re-inspection follow-up [27] (http://www.grs.nhs.uk). As far as follow-up accreditation is considered, Units must show > 200 ercps/yr and individual trainers > 75 with a therapeutic success rate of > 90% and a complication rate < 5%. As such, a lot of work is ongoing for benchmarking and improving ercp services, hence providing a better breeding ground for trainees. c. Training in ercp: With the widespread use of MRCP as a diagnostic tool, the overall number of ercp’s decreased and most (>95%) have now a therapeutic intent. This means that the workload of diagnostic cholangiography with native papilla has dramatically decreased for training purposes. Moreover, the total number of ercp’s currently remains stable in the range of 0.7 to 1.2 /1000 inhabitants in North America and Europe. With the statement that most endoscopy units perform < 50 ercp/yr (see above) and that 150-200 procedures are required for basic ercp competences at the end of GI fellowship in most national programs (Table 3), one can ask how it might be possible. A recent study from UK highlighted this problem suggesting that there are too many trainees in too many low-volume centers for a fixed national workload [27]. The suggestion is to adapt the number of trainees and concentrate ercp resources in approved units for intensive one year training [28].

REFERENCES


**POLICY OF FULL DISCLOSURE**
None declared