Power of big data to improve patient care in gastroenterology

There has been an explosion in the availability and accessibility of ‘big data’ and with it comes the obligation to maximise its potential to improve healthcare. This is across multiple domains including diagnostic algorithms, treatment efficacy, disease prevention and healthcare delivery. In a comprehensive review in this issue Catlow and colleagues discuss the key issues – big data analysis complements traditional research methodology; collection, curation and linking of datasets is challenging; artificial intelligence and machine learning algorithms can improve diagnostics, treatment stratification and thereby outcome. The authors consider these different themes in detail including summarising the definitions. The multiple sources of data are discussed including the strengths and weaknesses of different datasets. This includes discussion of the risks of bias – a larger sample can improve precision although doesn’t automatically reduce bias or sampling error (figure two). The potential to impact on healthcare is massive – the authors highlight the fact that real-world data need good data curation and an understanding of the clinical context and that we need to engage with our patients, so they understand how we are using their data to improve healthcare. Essential reading and editor’s choice this month. (See page 237)

JAG consensus statements for training and certification in oesophagogastrroduodenoscopy (OGD)

Training and quality assurance in oesophagogastrroduodenoscopy (OGD) are, we all agree, important to ensure competent practice. In this issue Siau and colleagues report a national evidence-based review to update and develop standards and recommendations for training and certification. This used a modified Delphi process with stakeholder representation under the oversight of the Joint Advisory Group (JAG) on Gastrointestinal Endoscopy. In summary there were 32 recommendations made around the definition of competence, acquisition of competence, assessment of competence, and post certification support. The consensus process led to following certification criteria: (1) performing ≥250 hands-on procedures; (2) attending a JAG-accredited basic skills course; (3) attainment of relevant minimal performance standards defined by British Society of Gastroenterology/Association of Upper Gastrointestinal Surgeons of Great Britain and Ireland; (4) achieving physically unassisted D2 intubation and J-maneuver in ≥95% of recent procedures; (5) satisfactory performance in formative and summative direct observation of procedural skills assessments. See figure One in the paper. The intent is to drive up quality. There is an excellent accompanying commentary - Improving quality in upper gastrointestinal endoscopy. (See page 193)

Training pathway for small bowel capsule endoscopy in the UK

There in an (ongoing) significant increase in the demand for small bowel (SB) capsule endoscopy (CE) in the UK. In this issue Tai and colleagues summarise the 12 months training and accreditation programme endorsed by the Joint Advisory Group (JAG) on Gastrointestinal Endoscopy. Further detail is available on the website. https://www.wthrjeag.org.uk/CMS/UploadedDocuments/Scheme/Scheme5/Capsule20endoscopy20certification20criteria20and20process201.pdf

In summary the training is delivered using JAG accredited courses and an electronic learning module. There is a knowledge-based assessment – a minimum of 50 SB CE should be read in tandem with a local trainer first – and proficiency is documented used Direct Observation of Procedural Skill (DOPS) assessments, relating to capsule procedure and capsule reporting, formative then summative. The training looks practical and reasonable to achieve. The structured approach is helpful and necessary to ensure standardisation of the procedure and reporting so that we can best use the SB CE to improve diagnosis and outcome for patients. (See page 206)

Curriculum review: investigation and management of dysphagia

Dysphagia is a common presentation in gastroenterology. In an excellent curriculum-based review Nigam and colleagues discuss the key issues for assessment and management. This includes a comprehensive summary of the anatomy and physiology, strategy for clinical assessment, differential diagnosis and further investigation. There is a nice algorithm for assessment which starts with consideration of the anatomical location – oropharyngeal, globus or oesophageal with oesophageal then split into structural and motility then intermittent vs progressive. I learnt a lot just working through this. Investigations are discussed including when manometry and endoscopy might be helpful. The different treatment options are considered including diet, pharmacology, endoscopic interventions and surgery. The review is comprehensive and complete – there is an excellent linked podcast – relevant to anyone practicing gastroenterology – well worth reading. (See page 254)

Twitter debate: controversies in liver transplantation

I have been very pleased with the response to the twitter debates and am very grateful to Phillip Smith, Social Media Editor, the trainee editor team and the participants for the considerable time and effort put into this. There are always a few ‘nuggets’ to report. In this issue Oliver Tavabie and colleagues summarises the debate of controversies in transplantation – it is a great read – a few key points are listed - there is no ‘6 month abstinence’ rule for patients with alcohol-related liver disease in the UK; cannabis use is not an absolute contraindication for referral for transplant assessment; whether a new transplant centre should be a UK funding priority is currently debatable; the advent of machine perfusion will increase the number of available grafts for transplantation; pregnancy is possible for patients post-transplant and should be discussed on a case-by-case basis. It is well worth reading through. (See page 262)

Please continue to engage in the debates – suggestion for topics are always welcome.

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