Trending perspectives on capsule endoscopy

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Key words: video capsule endoscopy, GI diagnostics, tele-medical service, e-health, market access

Abstract

When capsule endoscopy (CE) was launched, it was appreciated as an innovative diagnostic tool bringing light and new insights into the small bowel. Looking at video capsules today, the technological progress is advancing and more and more features are available with improved equipment and software versions. New capsule types broaden its use in different indications providing benefit in early diagnostics, by exclusion of an organic disease or monitoring mucosal changes in small bowel and colon[1]. Can a video capsule do more? Is it about the product itself or its use – by whom, how, when?

New trends are based on e-health developments and telecommunication such as tele-radiology and tele-monitoring with POCT (point of care testing)[2]. Clinics aim to hospitalize fewer patients and focus on those who need an intervention rather than a diagnosis only. In some countries, there are even waiting lists for colonoscopies[3], which cause quite some burden for patients as well as the health care system. Thus, GP's role becomes more important in selecting patients, and more quality assurance and standards are required.

Talking about standards of CE, there are structured recommendations published, such as the terminology (CEST)[4] for reporting, grading the cleansing level in adequate and non-adequate, or undergoing a theoretical and hands-on training[5] or e-learning[6] before starting to evaluate a video by oneself. It appears logical to create a capsule with artificial intelligence for describing the level of cleansing, as well as the kind of findings and its precise location and use the capsule in a tele-medical setting[7]. In a future unit, the results could be send to the endoscopic screen to guide next steps.

Biography

For almost a decade Tanja Nowak, PhD, has been active in the field of capsule endoscopy. As head of Medical Affairs EMEA within Given Imaging, she was involved in a vast number of clinical trials, R&D developments, quality management and regulatory processes. In 2016 she became an independent consultant where her expertise is now involved in supporting new approaches such as scalable, tele-medical capsule services and advises CorporateHealth International as Director Medical Affairs. In 2015, she started to participate in a Master Program (Master of Health and Medical Management), Friedrich-Alexander-University Erlangen-Nuremberg, Germany, with focus on telemedicine.

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