

THE POWER OF CHOICE: OFFERING THE BEST CLINICAL AND ENVIRONMENTAL SOLUTIONS FOR IMPROVED PATIENT OUTCOMES

The healthcare industry is a major emitter of greenhouse gases emissions¹ and preliminary studies suggest that gastrointestinal (GI) endoscopy is one of the largest polluters². The European Society of Gastrointestinal Endoscopy (ESGE) and the European Society of Gastroenterology and Endoscopy Nurses and Associates (ESGENA) recently published a position statement, with the aim to raise awareness and outline suggestions and recommendations to achieve sustainable endoscopy practice. One such strategy is reassessing the routine use of single-use GI endoscopic devices, by expanding product offering to empower physicians.

PENTAX Medical is taking its own ambitious measures to make GI endoscopy more sustainable, by incorporating sustainable thinking in every aspect of its value chain. Patient safety remains the primary goal of PENTAX Medical, against which sustainability ambitions need to be weighted. So how to balance sustainability goals with patient safety, all the while actually increasing patient outcomes?

Offering a meaningful mix

In endoscopy, there is a wide range of patients with varying conditions who cannot be served with a one-size-fits-all product. For that reason, enabling doctors to assess each situation and choose what is best for the patient on a case-by-case basis, is crucial. PENTAX Medical's ultimate goal is to empower doctors with the Power of Choice (PoC) to best treat each patient, instead of letting the product decide what's best for the patient – and the planet. In this way, they can ultimately make smarter, more sustainable choices.

Rainer Burkard, Global President of PENTAX Medical, comments: "The Power of Choice is a meaningful mix of reusable, semi-disposable and single-use products, combined with advanced cleaning solutions, which we believe provides the best clinical, economic and environmental benefit to our customers."

Maximizing productivity with reusable scopes

Reusable and semi-disposable endoscopes are often used in standard endoscopic procedures, where risk of infection is lower and patients throughput is higher. Boosting the efficiency of the drying cycle directly impacts endoscope availability and therefore patient outcomes, explains Anne Hillion, Health executive for GI endoscopy & pulmonology at Hôpital Européen Georges Pompidou, Paris, France: "Since we have had the PlasmaTYPHOON+ and PlasmaBAG system, we have not only improved our reprocessing efficiency but also the hospital efficiency. This drying and storage system not only enhances patient safety but also significantly reduces energy and overall electricity consumption while improving efficiency, yielding a small footprint for endoscope drying and storage."



PENTAX Medical PlasmaTYPHOON+ and PlasmaBAG system

Managing risk potential with semi-disposable scopes

There are other situations where the high performance of a reusable scope is needed, but where there is also a higher infection risk. For those cases, semi-disposable endoscopes make perfect sense. A semi-disposable endoscope solution provides all the benefits of both reusable endoscopes and single-use hygiene consumables to further enhance infection prevention. The PENTAX Medical Video Duodenoscope ED34-i10T2 combines a sterile disposable elevator cap (DEC™) for single-patient use and simple disposal, that advances cleaning capability of the duodenoscope to help reduce risk of cross-contamination and improve patient care, with High-Definition image quality for detailed endoscopic visualization during ERCP procedures.

High quality pulmonary care with single-use

Bronchoscopy is a clinical area that also holds a high risk of infection. The PENTAX Medical ONE Pulmo™ single-use bronchoscope was developed for situations where a risk patient is involved – either immunocompromised or with a disease. Prof. Felix Herth, Medical Director of the Department of Internal Medicine and Pneumology at the Thoraxklinik Heidelberg, Germany, explains how potential vulnerabilities of cross contamination are avoided with this solution:

"The advantage is that single-use scopes are ready to use anywhere and at any time, so we do not have the whole cleaning process in the back and we can use it just by opening a box." With benefits especially relevant for the ICU and ER room, such non-reusable devices have become increasingly popular in practice. Yet studies, including life cycle assessments, are urgently needed to better assess their environmental viability.



Prof. Herth using the PENTAX Medical ONE Pulmo

To conclude, no one solution is a complete fit for all patients or different medical procedures. Medical device manufacturers must aim to innovate a meaningful mix of endoscopes and provide doctors with the PoC. At the same time, it is crucial to take into account GI endoscopy's environmental and social impact. – healthcare providers, patients, governments, and the industry need to work hand in hand towards green GI endoscopy, following ESGE and ESGENA's recommendations.



Scan the QR code and listen to PENTAX Medical's latest podcast episode to hear more about sustainability in endoscopy.