

REDUCING THE ENVIRONMENTAL IMPACT OF ENDOSCOPY STARTS TOMORROW

WHICH ACTIONS CAN REDUCE THE ENVIRONMENTAL IMPACT OF HISTOPATHOLOGY?

The following information was devised by The Eco-Responsibility and Sustainability Development Committee from the French Society for Digestive Endoscopy (SFED). The European Society for Gastrointestinal Endoscopy (ESGE) are grateful for the opportunity to bring these important resources to a wider audience.

- ESGE-ESGENA 2022:**
- Histopathological examinations have a significant environmental footprint (0,28 Kg CO₂ per container, the equivalent of driving one thermal car over 1.1km)
 - Waste from pathology laboratories that has been in contact with samples is managed through the infectious medical waste stream (BMW-BioMedical Waste)
 - Formalin, a carcinogen, is handled through a specific waste stream

Starting tomorrow, I can reduce my impact by...

... minimizing the number of samples taken, by performing biopsies according to validated indications from scientific societies. In particular:

No systematic *Helicobacter Pylori* biopsies (indication reminder: screening > 45 years with family history, gastritis, ulcer, cancer).

using serology for the diagnosis of celiac disease instead of gastroscopy with biopsies

Not resecting hyperplastic polyps < 5 mm in the rectosigmoid when the endoscopic diagnosis is certain

Not performing systematic biopsies on colonic adenomas referred to a center/expert colleague for resection

Being familiar with, and adhering to, biopsy protocols (ESGE Endoscopic Tissue Sampling Guidelines)

... choosing my equipment:

Small-size biopsy containers (25 ml)

Use a single colonic biopsy forceps when diagnostic sampling is anticipated in patients undergoing both upper and lower GI endoscopy (unless a suspicious lesion is present). Ensure biopsy forceps is fully rinsed between procedures.

A single snare for polypectomies whenever possible

In the medium term...preparing for technologies that will replace histological diagnosis:

Training in endoscopic optical diagnosis + use of ultra-high-definition endoscopes

Exploring possibilities offered by artificial intelligence technologies: investments to be planned

References :

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