ARCHIMEDES Biodegradable Stent for Prophylaxis against Post ERCP Pancreatitis (PEP)

Grade A Recommendation: Prophylactic stents **remain the standard** in high-risk patients to reduce the incidence and severity of PEP [1,2] (ASGE, 2023; ESGE, 2014). Prophylactic stenting saves lives – reducing pancreatitis and mortality especially in high risk patients. The guiding principle: "Stent unless extenuating circumstances." [3] (Elmunzer et al., 2024).

PEP Incidence

ARCHIMEDES 3.7% vs 14 % PLASTIC [4]
Robles-Medranda et al., 2024
Plastic vs Biodegradable for the Prevention of Post-ERCP Pancreatitis

ARCHIMEDES 3% [5]
Joshi et al., 2025
Use of biodegradable stents in ERCP

Let's Transform the Patient Pathway for Prophylactic Stenting

TRADITIONAL IMPLANT





Traditional Stents at a minimum require patients to return to hospital for imaging and clinician consultation

Stent Removal = Congestion of Endoscopy Lists
Stent Tracking = Burden on Resources
Repeat Visits to Hospital = Increased Patient Anxiety, cost, carbon footprint, and waste
Plastic Stents and Repeat Procedures = High Complication Rates

Q3 MEDICAL TECHNOLOGY







The ARCHIMEDES Biodegradable Stent is designed to safely degrade over time with minimal complications – allowing patients to recover at home without the need for a repeat hospital procedure, provided they remain asymptomatic.

Quality of Life

References: 4, 5, 6, 7, 8



- A new Biodegradable Stent in HPB diseases: a prospective multi-center feasibility study
- Biodegradable Stents could help conserve health care resources: a multicentre study
- Novel Biodegradable Stent in patients with biliary and pancreatic obstruction
- Plastic vs Biodegradable Pancreatic Stents for the Prevention of PEP: A Single-center RCT
- Use of Biodegradable Stents in ERCP: lessons from a single high-volume centre

Cost Savings

References: 5, 9, 10, 11, 12, 13



- Cost-Effectiveness of Biodegradable Pancreatic Stents in Post-ERCP Pancreatitis Prophylaxis
- Cost Implication of a Care Pathway Using ARCHIMEDES vs Plastic Stents in PEP Prophylaxis
- Economic appraisal comparing plastic and Biodegradable Stents for PEP prophylaxis
- Biodegradable versus plastic stents in the prevention of PEP: a cost-effectiveness study
- Non-inferiority of Biodegradable Pancreatic Stents vs plastic stents in prophylaxis of PEP
- Use of biodegradable stents in ERCP: lessons from a single high-volume centre

Q3's 4 PILLARS

Sustainable Outcomes

References: 5, 13, 15, 16



- Environmental Impact of Biodegradable Vs Plastic Pancreatic Stent Usage in ERCP
- Clinical Utility of Biodegradable Pancreatic Stents in a Tertiary UK Centre
- Non-inferiority of Biodegradable Pancreatic Stents vs Plastic Stents in prophylaxis of PEP
- Use of Biodegradable Stents in ERCP: lessons from a single high-volume centre

Hospital Efficiencies

References: 5, 6, 7, 14, 15



- Biodegradable Stents could help conserve health care resources: a multi-center study
- A new Biodegradable Stent in HPB diseases: a prospective multi-center feasibility study
- Single centre experience with usage of Biodegradable Stents during ERCP
- Clinical Utility of Biodegradable Pancreatic Stents in a Tertiary UK Centre
- Use of Biodegradable Stents in ERCP: lessons from a single high-volume centre

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ARCHIMEDES Biodegradable Stent for Prophylaxis against Post ERCP Pancreatitis (PEP)

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Limitation Statement:

The information compiled in the Clinical Evolution of the data related to the biodegradable technology has some possible limitations, as it was not an exhaustive search but one that details key investigator-led studies, that confirmed findings represented by the company, its CE approval and FDA Clearance related to the attributes of the stent. The findings of the studies, individually or collectively, may need additional evaluation in the form of more rigorous analysis and further future studies around economics, as well as multi-centre randomized studies to further evaluate the biodegradable technology against the limitations of the current standard of care for plastic and metal implants that require a 2nd surgery for removal.

This document will look to add more clinical data and information, as biodegradable products are further studied and utilized. Whilst there are limitations to the information, we look to build more randomized clinical data to further show increased patient care, healthcare cost savings, sustainability benefits as well as hospital resource and waiting list improvements.

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