

A Structured Bowel Preparation Protocol Using Locally Available Solutions for Adenoma Detection in Maputo, Mozambique: A Methodological Study

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| Abstract

Inadequate bowel preparation is a major barrier to effective colonoscopy in low-resource settings, leading to suboptimal adenoma detection rates. In Mozambique, access to proprietary bowel preparation solutions is limited, necessitating protocols that utilise locally available and affordable alternatives. This methodological study aimed to detail the development, implementation, and assessment of a structured bowel preparation protocol using locally available solutions to improve adenoma detection during colonoscopy at a tertiary hospital in Maputo, Mozambique. The study was conducted at a central hospital in Maputo. A standardised protocol was developed, comprising a low-residue diet, a split-dose regimen of a locally produced polyethylene glycol solution, and structured patient education delivered with visual aids in local languages. Consecutive patients undergoing colonoscopy were enrolled. Preparation quality was assessed using the Boston Bowel Preparation Scale, and adenoma detection was recorded. The methodology elaborates on staff training, patient instruction, and systematic data collection procedures. As a methodology article, no empirical research findings are presented. The abstract describes the study design and procedures for evaluating the protocol's effectiveness, with the adenoma detection rate as the primary outcome measure. The described methodology provides a feasible and standardised framework for implementing a structured bowel preparation

protocol in a resource-constrained setting. It is designed to be reproducible in similar contexts across Africa. Further validation of this protocol through comparative studies is recommended. Healthcare institutions in similar settings should consider adopting structured, context-specific preparation protocols to improve colonoscopic outcomes. bowel preparation, colonoscopy, adenoma detection rate, low-resource setting, Mozambique, methodology, global health This work provides a detailed methodological blueprint for improving the quality of colonoscopy in sub-Saharan Africa by leveraging locally available resources, with the aim of enhancing adenoma detection.
