

PTU-023 **INVESTIGATION OF COLORECTAL CANCER BY
MINIMAL PREPARATION CT IN THE FRAIL AND
ELDERLY PATIENT**

doi:10.1136/gut.2011.239301.151

J Saunders,^{1*} C Bowman,¹ P Panto,² A Menon¹ ¹*Colorectal Surgery, Kings Mill Hospital, Sutton in Ashfield, UK;* ²*Radiology, Kings Mill Hospital, Sutton in Ashfield, UK*

Introduction Frail & elderly patients frequently struggle with invasive colonic investigations and cathartic bowel preparation, commonly resulting in incomplete studies of uncertain significance. It is important there is a pragmatic method of investigation for clinically significant Colorectal Cancer (CRC) in this increasing patient group, with a higher prevalence of disease. Minimal preparation CT (MPCT) provides clinicians with a reliable, well tolerated alternative to invasive investigation. It requires patients to drink oral contrast medium for 48 h before investigation without bowel preparation with a single scan in the supine position without colonic insufflation.

This study aimed to assess the accuracy of MPCT in the detection of CRC in this population and its feasibility for use as a routine investigation for the frail and elderly.

Methods A retrospective analysis of all 207 patients who underwent MPCT to investigate for CRC at a large district general hospital between November 2005 and October 2009. MPCT results were measured against patient outcomes, with a minimum of one year follow-up.

Results There were 11 CRC in this cohort with a disease prevalence of 5.3%. MPCT correctly identified all of these lesions, with a sensitivity of 100% and negative predictive value of 100%. MPCT raised the suspicion of CRC in 29 patients that were later shown to be benign, resulting in a specificity of 84% and a positive predictive value of 27.5. Diagnostic accuracy of suspicious findings was affected by the confidence of radiological interpretation; scans with 'possible' rather than 'likely' findings made up the majority of the falsely suspicious MPCT

results. There was one examination failure where the patient did not drink the oral contrast provided.

Conclusion The sensitivity of MPCT in this series compares favourably to colonoscopy, which is frequently compromised by poor views or incomplete intubation in this population. MPCT was well tolerated, and so retains a significant advantage over CT colography which requires full bowel preparation and rectal insufflation. Of the 29 (14%) 'false positive' MPCTs, 24 (82%) had an abnormal colon at the suspicious site. Diverticular disease of the recto-sigmoid colon was the most common cause for error, which was easily characterised by flexible sigmoidoscopy. In frail patients unable to withstand routine bowel preparation or colonoscopy, MPCT is an effective and reliable investigation, and can be routinely used for the exclusion clinically relevant CRC.

Competing interests None.

Keywords colorectal cancer, CT, elderly.