# **Transforming Polypectomy Education: One Step at a Time**

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## **Research Aims**

To determine if the current polypectomy training pathway is suitable

To improve polypectomy technical skills training To develop knowledge and cognitive skills training tools To develop endoscopic non-technical skills (ENTS) required for polypectomy

# Introduction

Colorectal cancer is the 2nd most common cause of cancer death in the UK<sup>(1)</sup>. Bowel cancers start as benign polyps that can be detected and removed during colonoscopy<sup>(2)</sup>; polypectomy is therefore an essential part of NHS strategy for cancer prevention.



Simulators available for teaching polypectomy lack fidelity<sup>(3)</sup>, so most training is undertaken on live patients. NHS service pressures limit opportunities for hands-on training and practising on patients raises ethical issues.

Even amongst independent colonoscopists, there is evidence of a significant skills deficit<sup>(4)</sup>; polyp assessment is poor and resections are too often incomplete. This results in patients undergoing unnecessary surgery.

Effectiveness of simulation training in polypectomy and its translation into clinical practice is currently unknown<sup>(5)</sup>. Our aim is to establish a more effective training model for polypectomy and create a clinically effective and competent colonoscopists workforce.

# Methods

Establish current level of polypectomy practice using a mixed methods approach to determine

the educational requirements of the existing workforce.

Effectiveness will be measured and evaluated at each step of this comprehensive programme. All elements complement one another, and upon completion it hopes to show its real-world impact on regional endoscopy practice.



In collaboration with the LJMU School of Art & Design, creation of a high-fidelity polypectomy simulator together with realistic bioplastic models and 3D graphic representations of complex polyps for teaching polyp assessment skills and improving technical and cognitive skills.

Safe polypectomy demands competence in endoscopic non-technical skills (ENTS). Working with the Clinical Simulation Team at LJMU, polypectomy-related simulation scenarios will be developed to improve polypectomy related ENTS.

Endoscopy trainers and sports coaches face similar issues when seeking to improve performance. Collaborating with the LJMU School of Sports & Exercise Sciences, sports psychology techniques will be explored to enhance polypectomy skills acquisition and trainer (coaching) effectiveness.

### **Conclusions/Impact to Practice**



Successful transformation of polypectomy education in the region should create a more confident and competent workforce, improving efficiency and producing better outcomes for patients.

Moving more polypectomy training into the laboratory will reduce its impact on service delivery.

Innovations derived from this project will be shared with the wider endoscopy training community and have potential to transform approaches to polypectomy training in the UK.

#### References

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<sup>(2)</sup> Hart, A.R. and Kennedy, H.J. (2011) Preventing bowel cancer: an insight for clinicians. *Therapeutic Advances in Medical Oncology, 3(6) 269-277.* DOI:10.1177/1758834011419550

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