

# Surgery guided by ICG (Indocyanine green) enhanced fluorescence

## Clinical question, PICOS and Search Strategy

### Setting: Lymphatic Mapping in Colorectal Surgery

Clinical question: **Would indocyanine green - enhanced fluorescence surgery, rather than surgery without fluorescence - improve the outcome of patients undergoing colorectal resection with lymphnodes removal?**

**P = Population or Patient group:** patients who underwent standard, laparoscopic or robotic surgery **colorectal surgery**

**I= Intervention:** surgical procedure (standard, laparoscopic, robotic) with fluorescent properties of indocyanine green (ICG)

**C= Comparator:** surgical procedure (standard, laparoscopic, robotic) without fluorescent properties of indocyanine green (ICG)

**O = Outcomes:** mortality, morbidity, operating time, re-operation, re-admission

**S = Study design**

- Primary research: randomised controlled trials (RCTs), controlled cohort studies, case control studies
- Secondary research: systematic reviews and meta analysis

<b>Keyword A</b>	Indocyanine Green				
<b>Keyword B</b>	ICG				
<b>Keyword C</b>	Fluorescence Lymphangiography/ Lymphography				
<b>Keyword C</b>	Image-guided surgery		Colorectal		
<b>Search strategy</b>	Indocyanine Green	<b>OR</b>	ICG	<b>OR</b>	Fluorescence Lymphangiograph hy/Lymphograph
<b>OR</b>	Image-guided surgery	<b>AND</b>	Colorectal surgery		

**Search methods for identification of studies:** all sources searched, including: databases, trials registers, websites and grey literature; all types of studies included: case series, clinical trials, review and meta-analysis – English language only

### Search Strategy Pubmed

((("Colorectal Surgery"[Mesh] OR "Colectomy"[Mesh] OR colectom\* OR polypect\* OR bowel-resect\* OR ("Colon"[Mesh] OR "Colon Cancer"[Mesh] OR "Rectum"[Mesh] OR "Rectal Cancer"[Mesh] OR colon\* OR colonic\* OR rectum\* OR rectal\* OR colorect\* OR colo-rect\* OR polyposis-coli) AND ("surgery"[Subheading] OR surger\* OR surgeo\* OR surgi\* OR resect\* OR "Laparoscopy"[Mesh] OR laparosc\* OR laparoendosc\* OR celioscop\* OR "Minimally Invasive Surgical Procedures"[Mesh] OR "Robotic Surgical Procedures"[Mesh]))) AND ("Indocyanine Green"[Mesh] OR "Fluorescence"[Mesh] OR indocyan\* OR indo-cyan\* OR fluorescen\* OR fluorescein\* OR ICG OR dye\* OR "Fluorescent Dyes"[Pharmacological Action] OR "Fluorescein Angiography"[Mesh]) AND ("Lymphadenectomy"[Mesh] OR "Lymphatic Mapping"[Mesh] OR "Sentinel Lymphnode"[Mesh] OR lymphnod\* OR lymph-nod\* OR lymphectomy\* OR "Lymphography"[Mesh] OR lymphogr\*))

## Search Strategy Embase

('colorectal surgery'/exp OR 'colon surgery'/exp OR 'colectomy'/exp OR 'polypectomy'/exp OR colectom\* OR 'bowel resect\*' OR (('colon'/exp OR 'colon disease'/exp OR 'rectum'/exp OR 'rectum disease'/exp OR colon OR colonic\* OR rectum\* OR rectal\* OR colorect\* OR 'colo rect\*' OR 'polyposis coli' OR sigmoid\*)) AND ('surgery':lnk OR surger\* OR surgeo\* OR surgi\* OR resect\* OR 'laparoscopy'/exp OR laparosc\* OR laparoendosc\* OR celioscop\* OR 'minimally invasive surgery'/exp OR 'robotic surgical procedure'/exp))) AND ('indocyanine green'/exp OR 'fluorescence'/exp OR indocyan\* OR 'indo cyan\*' OR fluorescen\* OR fluorescein\* OR icg OR icgfa OR 'coloring agent'/exp OR colouring OR coloring OR dye\* OR 'fluorescent dye'/exp OR 'fluorescence angiography'/exp) AND ('lymphadenectomy'/exp OR 'lymphatic mapping'/exp OR lymphectomy\* OR lymphography\* OR 'sentinel lymphnode'/exp OR lymphnod\* OR 'lymphography'/exp OR lymphogr\*)