

## Appendix 2. PICO based questions

- Population: Colorectal polyps
  - Size: diminutive ( $\leq 5\text{mm}$ ), small (6-9), medium (1-19mm), large ( $\geq 20\text{mm}$ )
  - Shape: pedunculated, sessile, flat, depressed
  - Location
  - Pathology: non-malignant (serrated: hyperplastic, ssa/p, tsa; neoplasia); malignant
  
- Interventions:
  - Cold biopsy
  - Hot biopsy
  - Cold snare polypectomy
  - Hot snare polypectomy
  - Endoscopic mucosal resection
  - Endoscopic submucosal dissection
  
- Comparison:
  - Cold biopsy
  - Hot biopsy
  - Cold snare polypectomy
  - Hot snare polypectomy
  - Endoscopic mucosal resection
  - Endoscopic submucosal dissection
  
- Endpoint:
  - Efficacy- complete resection, no local or distant recurrence, no interval cancer
  - Safety
  - Cost

### Questions:

1. **Define the endoscopic and pathologic characteristics of colorectal lesions that are amenable to endoscopic removal.**

Define the endoscopic and pathologic characteristics (appearance, shape, size, location, features, pathology, previous removal attempt) of colorectal lesions that are amenable to endoscopic removal (cold biopsy, hot biopsy, cold snare polypectomy, hot snare polypectomy, endoscopic mucosal resection, endoscopic submucosal dissection, argon plasma coagulation).

2. **What are the optimal techniques for endoscopic removal of colorectal lesions?**

**What are the optimal techniques** [timing, same day, single session, multiple sessions, size, carbon dioxide, water immersion, saline injection, methylcellulose injection, hyaluronate injection, epinephrine injection, non-lifting, monopolar electrocautery, endocut electrocautery, blend electrocautery, distal translucent cap, cap, bowel preparation type, bowel preparation quality] **for endoscopic removal** [cold biopsy, hot biopsy, cold snare polypectomy, hot snare polypectomy, endoscopic mucosal resection, inject and cut endoscopic mucosal resection, ligation endoscopic mucosal resection, cap endoscopic mucosal resection, lift endoscopic mucosal resection, endoscopic submucosal dissection, argon plasma coagulation] **of colorectal lesions?**

3. **What are the optimal techniques for evaluation of the colorectal polyp following endoscopic removal?**

**What are the optimal techniques** (residual assessment, residual removal, tattoo, india ink, carbon black, closure of mucosal defect, endoscopic clipping, clip, specimen pinning, specimen fixing, orientation, 2mm sections) **for evaluation of the colorectal polyp following endoscopic removal** [cold biopsy, hot biopsy, cold snare polypectomy, hot snare polypectomy, endoscopic mucosal resection, inject and cut endoscopic mucosal resection, ligation endoscopic mucosal resection, cap endoscopic mucosal resection, lift endoscopic mucosal resection, endoscopic submucosal dissection, argon plasma coagulation]?

4. **Define pathologic criteria for curative endoscopic removal of the colorectal polyp, in lieu of surgery?**

**Define pathologic criteria** (differentiation grade, lymphatic invasion, vascular invasion, depth of submucosal invasion, budding) **for curative endoscopic removal** [cold biopsy, hot biopsy, cold snare polypectomy, hot snare polypectomy, endoscopic mucosal resection, inject and cut endoscopic mucosal resection, ligation endoscopic mucosal resection, cap endoscopic mucosal resection, lift endoscopic mucosal resection, endoscopic submucosal dissection, argon plasma coagulation] **of the colorectal polyp, in lieu of surgery** [hemicolecotomy, laparoscopic hemicolecotomy, low anterior resection, open colectomy, total colectomy]?

5. **Define optimal surveillance interval recommendations and technique following the endoscopic removal of the colorectal polyp.**

**Define optimal surveillance interval recommendations (multisociety task force post polypectomy surveillance colonoscopy guidelines) and technique** (image enhanced endoscopy, chromoendoscopy, narrow band imaging, iscan, FICE, confocal

endomicroscopy, biopsy) **following the endoscopic removal** ([cold biopsy, hot biopsy, cold snare polypectomy, hot snare polypectomy, endoscopic mucosal resection, inject and cut endoscopic mucosal resection, ligation endoscopic mucosal resection, cap endoscopic mucosal resection, lift endoscopic mucosal resection, endoscopic submucosal dissection, argon plasma coagulation]; piecemeal or *en bloc* method) **of colorectal lesions.**

6. **What is the optimal diet type and timing following the endoscopic removal of colorectal lesions?**
7. **Should antibiotics be routinely used following the endoscopic removal of colorectal lesions?**
8. **When should antiplatelet and anticoagulant medications be stopped and when should they be restarted in the setting of endoscopic removal of colorectal lesions?**

**When should antiplatelet** (aspirin, non-steroid anti-inflammatory drugs, clopidogrel, Aggrenox, etc) **and anticoagulant** (warfarin, Coumadin, pradaxa, dabigatran, novel oral anticoagulant drugs) **medications be stopped and when should they be restarted in the setting of endoscopic removal of colorectal lesions?**