“Quality Indicators for the Doctor Performing Screening Colonoscopy: What you should expect from your Endoscopist”

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OUTLINE

- Historical Perspective of Colorectal Screening
- Epidemiology
- What is Quality Care?
- Society Guidelines
- Quality Indicators for Colonoscopy
- Future Innovations
- Summary
Epidemiologic Data

- In US 2nd leading cause of cancer deaths
- Over 1 million cases worldwide each yr
- In US 2014: 136,000 cases
- Annually 50,000 Americans die
- 10,200 new cases per year in NYS
- In Monroe county avg annual 386 new cases and 150 deaths

Reduction in Colorectal Cancer Mortality Rate

- Rates declined 3% annually past 10 yrs
- Age < 50 rates up 1% per yr
- Lifetime risk in US is 5%
- CRC Incidence 25% higher in men than women
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Incidence

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What is Quality Health Care?

- Quality of health care is measured by comparing performance of an individual or group with an ideal benchmark.
- A particular parameter is a “Quality Indicator”.

Quality Indicators

- Structural Measures: Health care systems e.g. database registry.
- Process Measures: Assess performance during health care delivery e.g. ADR (adenoma detection rate).
- Outcome Measures: Reduction in colon cancer.

Society Guidelines

- 2008 Multi-Society Task Force (ACS, USMSTF, ACR).
- Tests for Primary prevention:
  - FS q5 – Cscope q10–DCBE q5 – CTC q5
- Tests for Early Detection of CRC:
  - FIT q1 or sDNA

NO TEST IS SUPERIOR.
Guidelines: USPSTF 2008

- Only 3 modalities recommended
- FOBT q year
- FS q5 yrs and FOBT q3yrs
- Cscope q10 yrs
- Stop screening at 75

Guidelines: ACG

- Tests for cancer prevention or detection
- Cscope as preferred strategy
  FIT if Cscope declined
- Alternative tests for detection:
  Flex Sig q5-10 yrs
  CTC q 5yrs
  sDNA q3yrs
- Screening at 45yrs for African-Americans
- "Average risk patient includes 1st degree relative with CRC or advanced adenoma 60 yrs or older"

ACP Guidelines: 2012

- Average risk (age 50):
  FOBT, Flex Sig, Cscope

- High risk: 1st degree relative with CRC or Advanced adenoma < 60 begin Cscope age 40 or 10 yrs before index case

- Stop screen at 75 or life expectancy < 10 yrs
Stool FIT
- FIT detects human globin specific for LGI
- Detects 0.3mg per gram of stool
- No prep and single sample
- Send within 5 days of sampling
- Automated analysis
- Low Dose ASA not associated with false pos
- Pooled sens CRC in meta-analysis 0.79 and spec 0.94
- DRE not recommended for CRC screening
- Cost $25-30

Stool DNA: Cologuard
- Detects altered DNA & Blood
- One stool sample and no prep
- Sensitivity 92% Colon Cancer, 70% advanced polyps, 40% for all polyps
- False positive 13%
- CMS coverage for avge Asx pts 50-85
- Cost $500
- Pts to detect 1 CRC: FIT 208 people, sDNA 166 people, Cscope 154 people

Colonoscopy
- Only Modality with one step diagnostic and therapeutic outcome
- Quality of bowel prep is critical
- Sensitivity lower for right colonic lesions
- 80% Reduction in CRC Incidence
- 6% miss rate for polyps > 6 mm
Quality Indicators in Colonoscopy

- Pre-procedure
- Intra-procedure
- Post-procedure

Quality Indicators: Pre-procedure

- Appropriate indication for colonoscopy
  - 10 yr screening interval after negative Cscope in avg risk patient. Includes patients with only one 1st degree relative with CRC age >60 (OP29)
- Post-polypectomy 3yrs if adenoma >1cm, 3 or more adenoma's, or villous/high grade features (OP30)

  High risk patient includes family history of adenomatous colon polyps or CRC <60 yrs age Q5 yrs
- Post-cancer surveillance at 1 yr, 3 yrs then q5 yrs if no polyps

Quality Indicators: Intra-procedure

- Quality of prep adequate if detection of polyps > 5mm
- Cecal intubation rate >90 % (95% screening)
- Withdrawal time > 6 minutes
- Miss rate of polyps >6 mm 6% and 20% overall
- Screening Adenoma Detection Rate (ADR)
  - 25% overall, but 30 % men and 20% women
  - Interval CRC 34 per 100,000 yrs ADR <10 %
  - Interval CRC 2 per 100,000 yrs ADR >20 %
Quality Indicators : Post-procedure

- Rate of perforation overall < 1:500 and < 1:1000 for screening
- Post-Polypectomy bleed <1 % and 90 % managed endoscopically
- Clear documentation to patient and PCP re timing of next scope after histology report

Priority Quality Indicators for Colonoscopy

- Adenoma Detection Rate in asymptomatic average risk patients undergoing screening
- Appropriate frequency of Cscope after negative exam, post-polypectomy and post-cancer surveillance
- Frequency of cecal intubation with photo

New Innovations

- Self-Propelled Cscope “ Aero-Scope”
- Capsule Colonoscopy
- “Third eye Rectoscope”
- G-Eye HD Colonoscopy
- Serum marker’s “The Holy Grail“
Could Dog's Detect Cancer?!

Dog's Detect Colon Cancer!!

Summary

- Progressive reduction in CRC but not in right colon or age < 50
- Colonoscopy is ideal test for prevention and detection of CRC associated with approx 80% reduction in CRC incidence
- Annual Stool FIT and q 5 yr Virtual CT scan of colon are good alternatives
- Quality of prep is critical to efficacy of colonoscopy
- Priority quality indicator's for colonoscopy are 25% ADR, adherence to guidelines post screening, post-polypectomy and post-cancer surveillance
Question: Priority Indicators for Colonoscopy include?

A) Adenoma detection rate 25% (ADR)
B) Withdrawal time >8 mins
C) 10 yr interval screen in a patient after negative colonoscopy who has a 1st degree relative with CRC age 72
D) Answer A and C