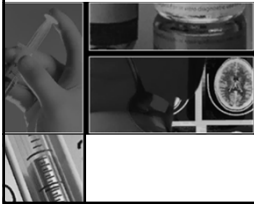


# Nurse-Led Endoscopy



June 6, 2014

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## Session Objectives



- Understand the history and progression of nurse led endoscopy
- Learn the training requirements of an independent nurse endoscopist
- Recognize the potential impact of nurse led endoscopy on CRC screening
- Common challenges and pitfalls to Nurses performing endoscopy

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## History



- Nurse endoscopists have been noted in literature from the early 1970's
- Firmly established in the UK, with 350 nurses practicing as of 2007 but the majority perform sigmoidoscopy
- Currently there are nurse colonoscopists working throughout Europe and the USA
- No published data on nurses performing colonoscopy in Canada
- There are nurse performing screening flexible sigmoidoscopy in Ontario

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### The Need for Change in Alberta

- Practice-audits show that Alberta has a low rate of gastroenterologists to perform colonoscopy at a rate of 3.5 per 100 000 population.
- Implementation of a population-based, CRC screening program, and the recent introduction of FIT testing has solicited thousands of Albertans on an ongoing basis to participate in primary screening including colonoscopy.
- Over 400 FIT + patient referrals to SCOPE program each month since February
- Colonoscopy demand already exceeds capacity for colonoscopy in Canada
- The manpower required to conduct additional colonoscopies, is not adequate to meet demand now, or in the future.



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### Colonoscopy training for nurse endoscopists: Is it possible? Is it wise? Is it worth doing?

"Are there circumstances that could allow safe and high quality colonoscopy be performed by non-physicians? We believe that the answer to this question is yes, but it would require endoscopic training similar to that provided to GI fellows and involve extensive didactic as well as hands-on endoscopic training."

Ahnen & Lieberman Vol69,(3) : 2009 GASTROINTESTINAL ENDOSCOPY



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### The UK as a Model for Success

- Endoscopy by nurses is common and is approved, subject to appropriate training and management, by the British Society of Gastroenterology and the American Society for Gastrointestinal Endoscopy.
- The British Healthcare Commission reported in 2007 that 85% of acute hospital trusts employed nurse endoscopists

» [www.york.ac.uk](http://www.york.ac.uk)



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**Chesterfield nurses celebrate 'gold standard' accreditation for endoscopy unit**  
6 June, 2013 | By [Sharon East](#)

- The nurse-led endoscopy team at a Derbyshire Hospital has been awarded "gold standard" accreditation for its quality and patient care.
- The Chesterfield Royal Hospital's endoscopy unit has been fully accredited by the Joint Advisory Group on Gastrointestinal Endoscopy, viewed as the gold standard for the highest standard in terms of safety, quality and the training of its staff.




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**Colonoscopy training for nurse endoscopists: a feasibility study**  
Jan J. Koomstra, MD, PhD, Sietske Corporaal, MD, Wiesje M. Giessen-Beintema, BSc, Sietske E. de Vries, BSc, Hendrik M. van Dullemen, MD, PhD Groningen, The Netherlands

Nurse colonoscopy training Keemstra et al.

**TABLE 2. Objective and subjective results of colonoscopy training**

Criteria	Nurse trainee (no. patients = 300)	Fellow (no. patients = 150)	Expert endoscopist (no. patients = 150)
<b>Procedural data</b>			
Cecal intubation rate (%)	90.7	79.3*	99.3
Median cecal intubation time (min)	11 (range 2-30)	11 (range 4-26)	6 (range 2-28)
Complications (%)	0.33	0.67	0.0
<b>Patient data</b>			
Pain (mean ± SEM)	2.6 ± 0.16 (range 0-8.5)	2.6 ± 0.26 (range 0-6.6)	1.9 ± 0.22 (range 0-18)
Discomfort (mean ± SEM)	0.7 ± 0.09 (range 0-7.0)	0.4 ± 0.07 (range 0-4.8)	0.2 ± 0.07 (range 0-7.2)
Satisfaction (mean ± SEM)	8.5 ± 0.06 (range 2.0-10)	8.3 ± 0.09 (range 4.2-10)	8.5 ± 0.07 (range 6.5-10)
Rating good (%)	73.3	74.0	86.0
Willingness for a repeated procedure (%)	99.3	97.3	100

\*P < .005 for the difference between the nurse and the fellow.




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**Practice Management: The Road Ahead**  
John T. Allen, Section Editor

**Screening Colonoscopy: A New Frontier for Nurse Practitioners**  
SUSAN HUFFLEISS and ANTHONY N. KALLOO  
 Division of Gastroenterology and Hepatology, The Johns Hopkins Hospital, Baltimore, Maryland

- Trained 3 NPs to perform screening colonoscopies since 2009.
- The NPs training was identical to their contemporary gastroenterology fellows
- performance exceeded all benchmarks expected of fully trained gastroenterologists.
- The NPs also produce cost savings because they are reimbursed at 85% of the physician fee
- All 3 NPs are board-certified in Maryland to perform colonoscopies and achieved this certification after 1 year of training.




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### Recent Studies

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- Vance M. The nurse colonoscopist: training and quality assurance. *Gastrointest Endosc Clin N Am* 2005;15:829–837.
- Maslekar S, Hughes M, Gardiner A, et al. Patient satisfaction with lower gastrointestinal endoscopy: doctors, nurse and nonmedical endoscopists. *Colorectal Dis* 2010;12:1033–1038.
- Limoges-Gonzalez M, Mann NS, Al-Juburi A, et al. Comparisons of screening colonoscopy performed by a nurse practitioner and gastroenterologists: a single-center randomized controlled trial. *Gastroenterol Nurs* 2011;34:210–216.




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### The Edmonton Program Design

- **Cognitive training** was carried out between Sept 2009 and Sept 2011 and included 3 colonoscopy modules.
- Two self-directed, online-training modules and practical hands on colonoscopy
- The theory modules included two 10 week modules and written examinations, completed and submitted on-line.




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### Progression of Technical Training

Recorded practice of:	Minimum number to be completed
Set-up & take down of endoscopy stack	25
Cleaning & disinfection of endoscopes	25
Observed procedures	25
Simulated procedures	10
Endoscopic withdrawal	50
Completed procedures under direct supervision (diagnostic only)	50
Completed procedures with proximal supervision (diagnostic only)	50
Conventional biopsy (under direct supervision)	25
Therapeutics – polypectomy, hot & cold (under direct supervision)	25

Modified from Hull University colonoscopy training module 2010




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### Technical Training

- A one-year colonoscopy training program within the Division of GI was initiated in Jan 2010 and extended through Dec 2011. Within this time:
- 232 supervised colonoscopies were completed.
- Assistance was required to achieve cecal intubation in 18 of the first 50 colonoscopies (36%) but only 4 of the last 50 (8%) achieving a cecal intubation rate of 92% over the last 50 procedures.
- Polyps were identified and removed in 88/232 patients (polyp detection rate of 38%)
- Minor adverse events included 1 patient with post-polypectomy bleeding.
- There were no perforations or serious adverse events.

At the end of training, a Postgraduate Certificate in Colonoscopy was awarded through the University of Hull and credentialing from the University of Alberta Hospital.



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### Independent Practice.

- Independent NP colonoscopy has been implemented at the University of Alberta since April 2012.
- Screening colonoscopy was performed in 406 patients .
- The mean age was 54 years (range 36-73 years).
- Successful cecal intubation was achieved in 399/406patients (98%).
- The mean time to cecum was 9 minutes (range 2-31 minutes).
- The mean withdrawal time was 10 minutes (range 4-37 minutes).
- The PDR and ADR were 62% and 37%, respectively.



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### Benefits

- NP colonoscopy represents an excellent solution to colonoscopy manpower issues in colon cancer screening programs.
- Cost Effective and provides safe quality colonoscopy
- The development of new roles and increasing career options might be a way to make the career of GI nursing more attractive, and possibly increase the recruitment of new staff{AHS, 2007; CNA 2008; CNA, 2005;Norton,C. 2002};



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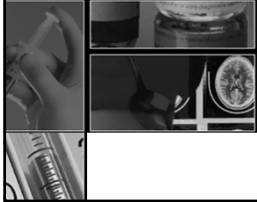
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# Challenges



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## Challenges

- Whenever we expand the scope of practice in this way it is essential to consider the legal implications
- Buy in by all stakeholders is needed. The general public and professional bodies have expectations and perceptions of what constitutes the nursing role



Unsolicited Advise

- Be prepared for setbacks and expect delays
- Develop a thick skin and be patient

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## How to Ruin Your Husband's Dinner In One Easy Step



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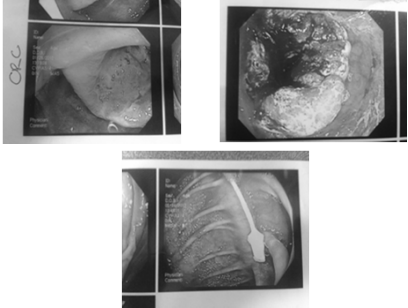
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Colon Cancer and some unexpected finds



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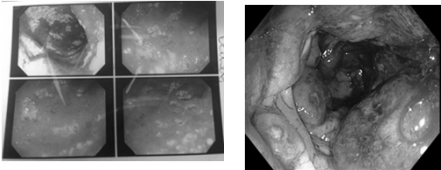
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### Conclusion

- Independent NP colonoscopy has been successfully and effectively implemented at the University of Alberta.
- Colonoscopy quality assessments for the NP are similar to those seen with gastroenterologists.
- NP colonoscopy represents an excellent solution to colonoscopy manpower issues in colon cancer screening programs



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