

Comparison of Colonoscopic Performance between Medical and Nurse Endoscopists: A Randomized Controlled Study in Asia (Interim Analysis)

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Background

- Nurse endoscopists have been an integral part of the United Kingdom healthcare system for almost 20yrs with over 200 nurse practitioners performing OGD, sigmoidoscopies & colonoscopies
- In Hong Kong, a nursing specialist was trained to perform flexible sigmoidoscopy in 2009



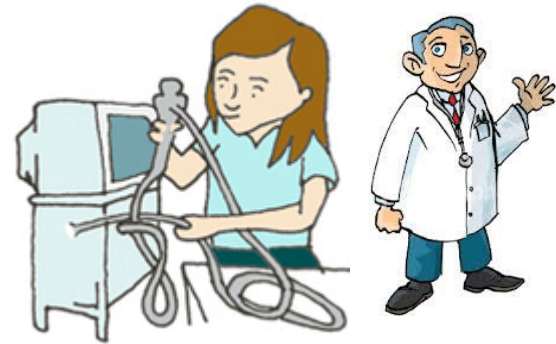
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REVIEW

A comprehensive training programme for nurse endoscopist performing flexible sigmoidoscopy in Hong Kong

Nga F Shum, Yau L Lui, Hok K Choi, So C Lau and Judy WC Ho

From Endoscopy Nurse to Nurse Endoscopist



JAG Joint Advisory Group
on GI Endoscopy

All colonoscopy procedures performed by nurses are closely supervised by senior endoscopists

Procedural Observation



Hands-on training (140 procedures)

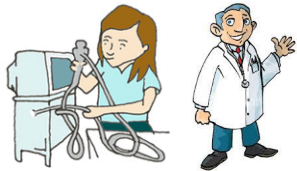


Documented assessment of proficiency

Prospective Randomized-controlled Trial

Study population

Patients with average risk of colorectal cancer, greater than 50yrs old who were referred to AHNH for outpatient colonoscopy



Nurses supervised by senior endoscopists (Study Arm)

Sample Size Calculation

- Assume adenoma detection rate 29%
 - Assume non-inferiority limit of -10%
- 323 patients in each study arm will provide 80% power to demonstrate non-inferiority using 1-sided 95% confidence interval



Senior endoscopists (Control arm)

Outcome Measures

1. Adenoma detection rate
2. Caecal intubation rate & time
3. Withdrawal time
4. Complication rate
5. Patient's pain & satisfaction score

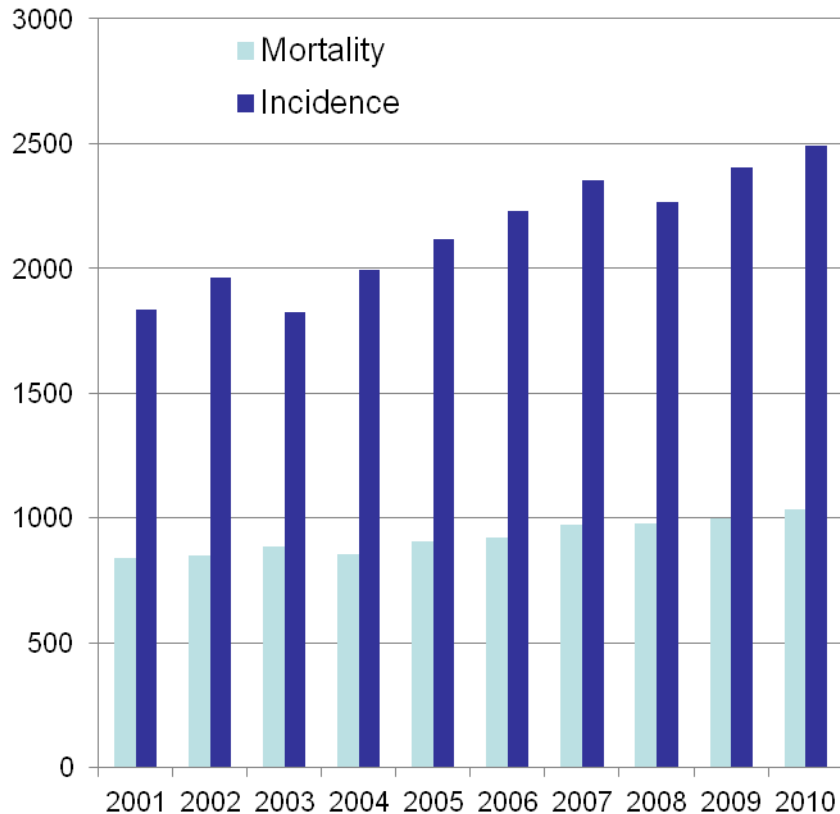
Study Results (Interim Analysis)



| | Study Arm (n = 258) | Control Arm (n = 301) |
|----------------------------|----------------------------|-----------------------|
| Adenoma Detection Rate | 41.1% | 33.6% |
| Caecal Intubation Rate | 100% | 100% |
| Caecal intubation Time | 474 seconds | 391 seconds |
| Procedure withdrawal time | 1109 seconds (p <0.001) | 681 seconds |
| Complication Rate | 8.9% | 7.6% |
| Require Extra Sedation | 12.8% | 18.9% |
| Patient Pain score | 1.91 (out of 10) | 1.59 (out of 10) |
| Patient Satisfaction Score | 4.51 (out of 5) | 4.36 (out of 5) |

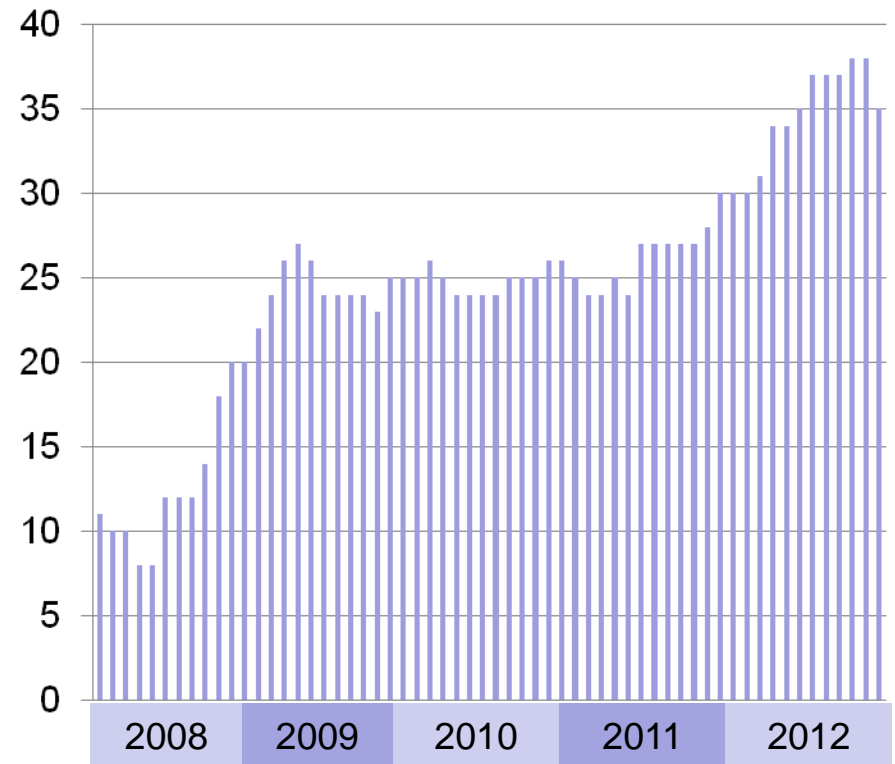
The demand for colonoscopy is rising

Colorectal Cancer



HK Cancer Registry 2010

Waiting Time (weeks)



AHNH & PWH Routine Colonoscopy
Waiting Time

Conclusion

Nurse endoscopists can safely and effectively perform colonoscopy with proper training and supervision.

The development of nurse endoscopists in Hong Kong would be useful to cope with the rising demand for colonoscopy service