



**A COMPREHENSIVE TRAINING
PROGRAM FOR NURSE
ENDOSCOPIST ON PERFORMING
FLEXIBLE SIGMOIDOSCOPY IN
HONG KONG**

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Introduction

Hong Kong Cancer Registry 2005

- 3,706 new cases
- 1,614 deaths
- Colorectal cancer: 2nd cancer killer

Colorectal cancer will surpass lung cancer as the commonest cancer in Hong Kong in the next 10 years!



Introduction

Colorectal cancer screening is one of the strategies to combat this deadly disease.

Flexible sigmoidoscopy is one of the recommended modalities for colorectal cancer screening in the general population.



Introduction

Nurses have been reported to perform sigmoidoscopy since the early 1970s

Spencer & Winkels Mayo Clin Proc 1978

Sigmoidoscopy is a technical skill that has been successfully performed by suitably trained colorectal nurse practitioners in the United States of America

Duthies *et al* Gut 1998

Nurse endoscopist is an established post in the United Kingdom

Pathmakanthan *et al* J Adv Nursing 2001



Background

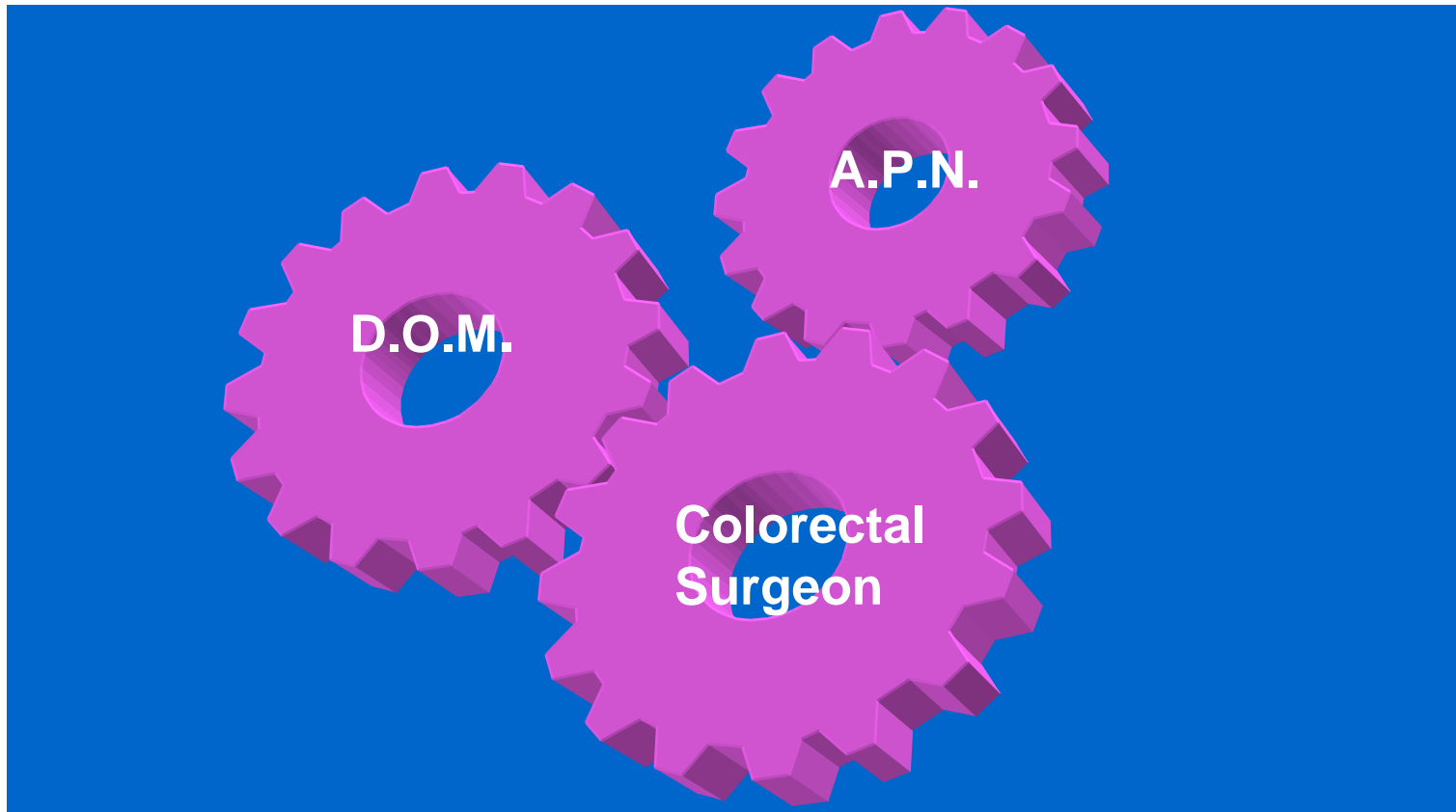
Keep pace with advances in the health care system
Face local challenges of medical staff shortage

Pilot program to expand the role of a colorectal nurse
and to train a colorectal nurse clinician

One of the training components was the performance
of flexible sigmoidoscopy



Comprehensive Training Program





Aim

To explore the feasibility of advancing the role of a nurse & to train the nurse to perform flexible sigmoidoscopy.



Method

1 year structured program consisting of both theory & practical components

Weekly session

Trainers

3-stage training process

Final assessment



Training process

3 stages

- (1) Theory & Procedural Observation
- (2) Supervised Hands-on Practice
- (3) Supervised Procedural Performance

Final assessment



Stage 1

Theory & Procedural Observation

Tutorials

- Anatomy & physiology of large bowel
- Common colorectal pathologies including colorectal neoplasia
- Management principles on various large bowel pathologies

Theory on endoscopy

- Self-study of relevant textbooks



Stage 1

Theory & Procedural Observation

Observed the procedure

- Performed by experienced endoscopist

Taught to recognize

- Normal anatomy
- Endoscopic landmarks
- Colorectal pathologies (polyps, cancers & colitis)

Observed 75 cases over 3 months



Stage 2

Supervised Hands-On Practice

Withdrawal of the endoscope

Manipulation of the endoscope

Intubation of the endoscope

Withdrew 36 cases & inserted 35 cases over 3 months



Stage 3

Supervised Procedural Performance

Performed the entire procedure in the presence of the trainer on EVERY CASE

Refined the skills

Verified the results

Prepared the endoscopic report in C.M.S.

Performed 88 cases over 6 months



Final Assessment

Completion of 3 stages



Satisfaction of trainers



Final assessment on skill competency



Allowed to perform independently



Trained Nurse Endoscopist

Every Wednesday afternoon session from
August 2007

Elective diagnostic procedures on outpatients

Designated medical endoscopist

Fibreoptic flexible sigmoidoscope



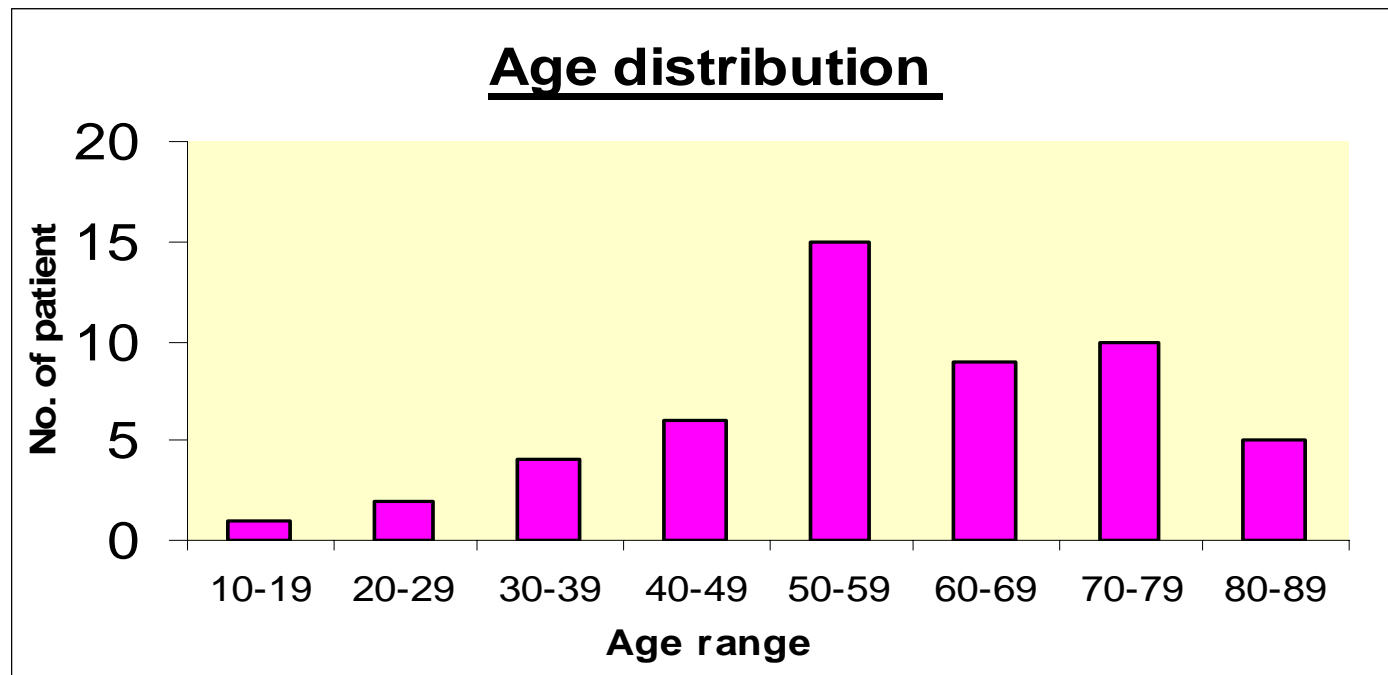
Initial Endoscopic Results

(From August 2007 to January 2008)

Patient Profile

52 patients (26 female & 26 male)

Mean age: 57.9 ± 16.5 years (range 18-82 yrs)





Patients Underwent Flexible Sigmoidoscopy by Nurse Endoscopist

52 patients

38 completed

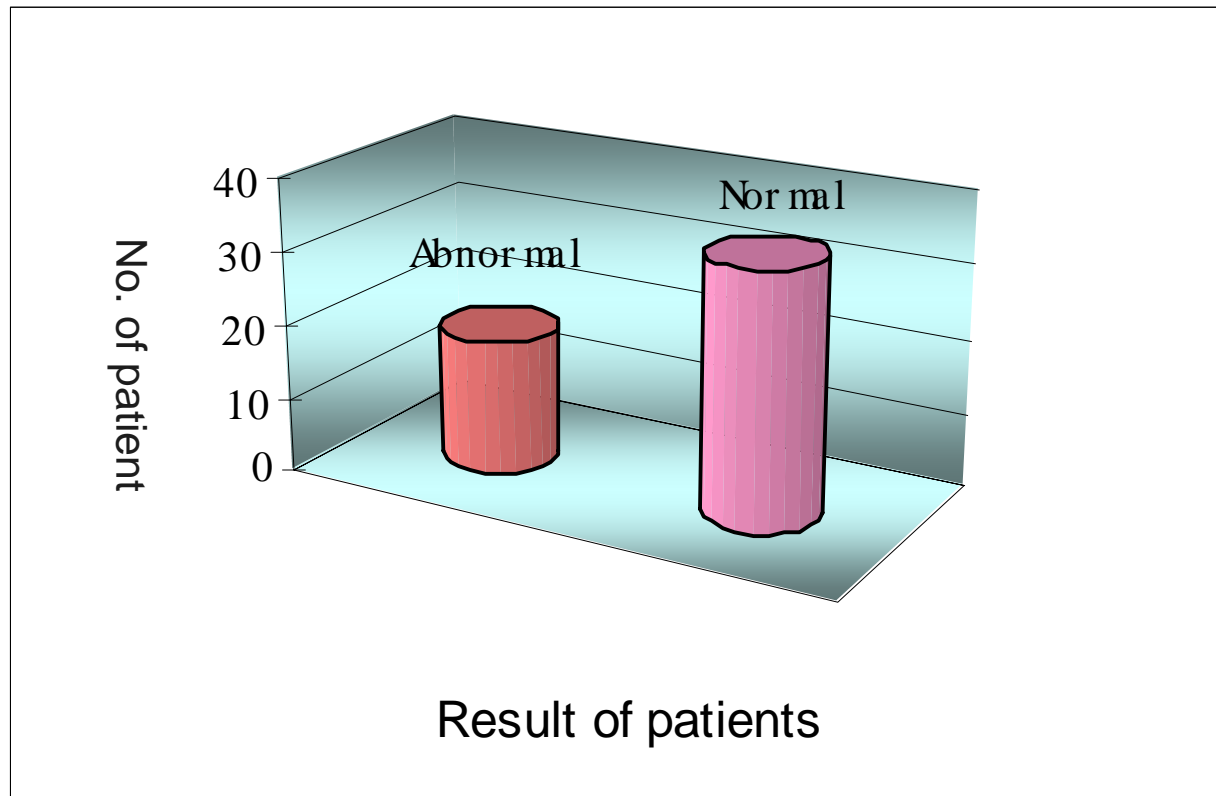
14 failed

Reasons:

- 1 tumour obstruction
- 5 poor bowel preparation
- 4 previous pelvic surgery
- 4 looping of bowel

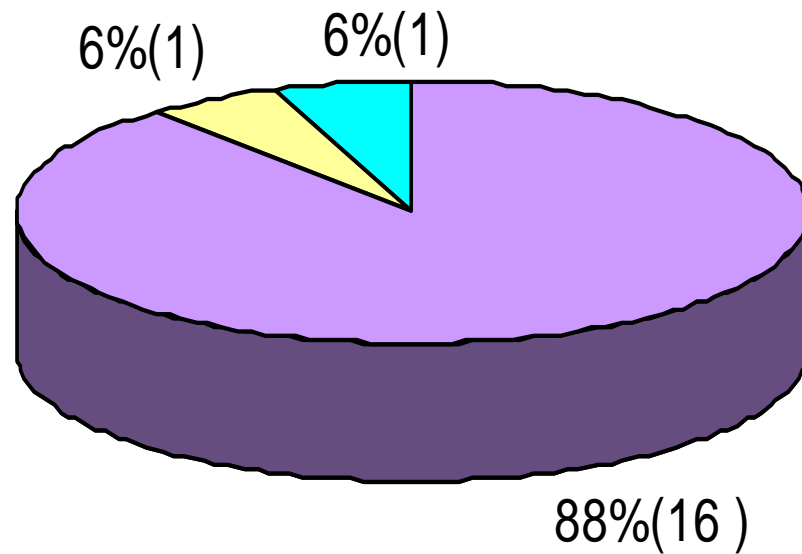
Endoscopy Finding

18 abnormal and 34 normal



Endoscopy Finding

Colorectal Pathology



- Polyp
- Tumour
- Diverticulum



Colonic Polyp(s)

16 (30.77%) patients had colorectal polyps

Patient number	Pathology report
10	Adenomatous polyp
5	Hyperplastic polyp
1	Well differentiated adenocarcinoma

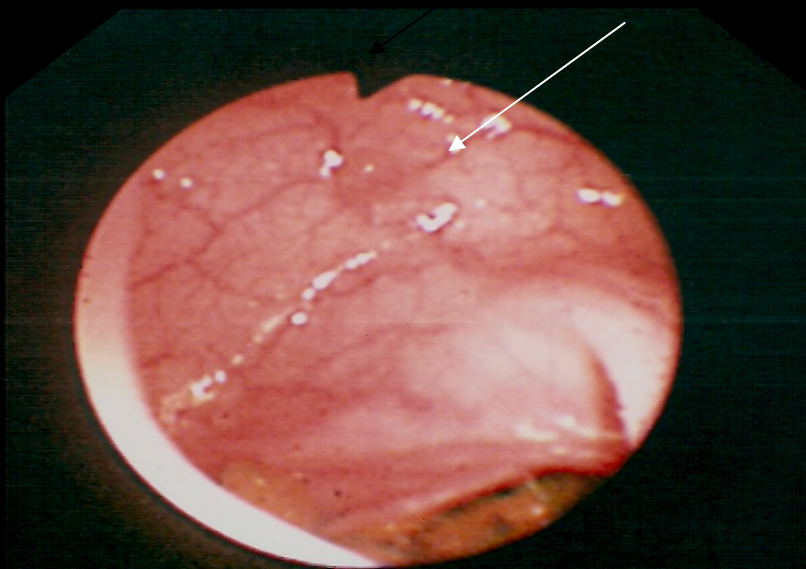
Polyp

ID No.
Sex Age
D. O. Birth :
17/10/2007
14:14-17

SCV 1

Ct · N Ed A1
Ce · O

Name



Physician
Comment :

Polyp

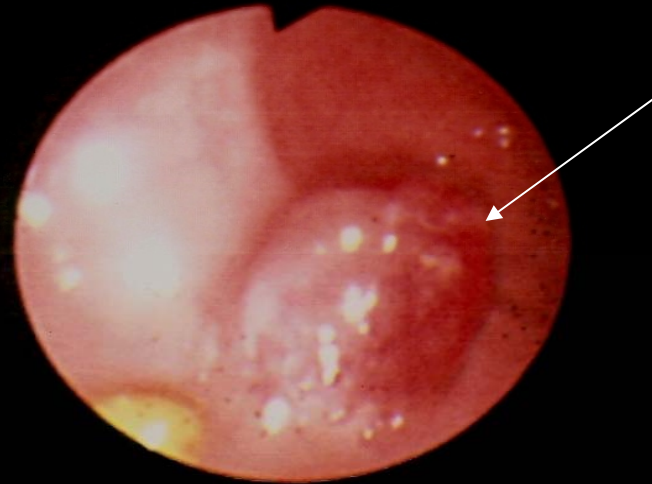
ID No. ■
Sex Age
D. O. Birth :

Name

24/10/2007
14:54 27

SCV 1

C_T N E_H A1
C_E O



Physician
Comment :

Tumour

ID No.
Sex Age
D. O. Birth :

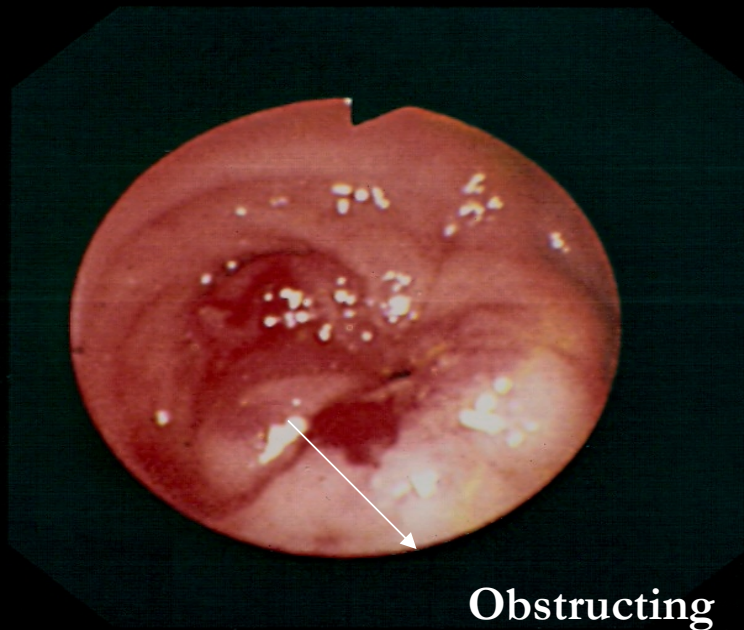
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SCV 1

CT: N EH: A1
CE: O

Physician
Comment :

Name



Obstructing
tumour at 6cm
from anal verge



Depth of insertion

Mean depth of insertion: 51.9 ± 15.4 cm (range 6- 60cm)

Depth of insertion	No.of patients	Reasons
60cm	38	
30cm to 59cm	10	2 Poor bowel preparation 4 Patient intolerance 4 Looping of bowel
0cm to 29cm	4	3 Poor bowel preparation 1 Tumour obstruction



Procedure Time

Mean procedural time: 8.8 ± 2.9 minutes (range 4 - 14 minutes)

Time required for procedure	Patient number
Within 10 minutes	38 (73.08%)
11 - 20 minutes	14 (26.92%)



Procedural-Related Complication

No unplanned hospital admission after sigmoidoscopy

No perforation

No bleeding

No abdominal pain



Conclusion

Appropriately trained nurses can perform flexible sigmoidoscopy in a safe & effective manner.



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