

**11<sup>TH</sup> MEETING OF THE EUROPEAN SOCIETY OF GASTROENTEROLOGY AND  
ENDOSCOPY NURSES AND ASSOCIATES  
(ESGENA)**

In association with the  
**French Society of Endoscopy Nurses (GIFE)**

in Paris, France  
27-29 October 2007

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## **Best oral presentation**

**Presented on 28 October 2007 in Paris**

**THE PLACEMENT OF NASODUODENAL FEEDING TUBES BY NURSES WITH  
THE ASSISTANCE OF AN ELECTROMAGNETIC SYSTEM (CORTRAK™)**

**Background** The endoscopic placement of nasoduodenal feeding tubes is bothersome for the patient and a time-consuming procedure for the endoscopist. New technologies such as an electromagnetic guided system (Cortrak™), that visualises the path of the feeding tube in the patient, may facilitate the placement of feeding tubes by nurses.

**Aim** To evaluate the feasibility of placement of nasoduodenal feeding tubes by nurses at the patient's bedside without the help of endoscopy and without the need of fluoroscopy.

**Patients and methods** Patients without aberrant anatomy after surgical intervention and without upper gastrointestinal stenosis were eligible. Feeding tubes were positioned at the bedside of the patient. By a universal path finding system the electromagnetic tip of the feeding tube transmits its signals to a receiver placed on the epigastric region of the patient. On a screen the positioning of the feeding tube can be followed. The aim was to reach at least the duodenojejunal flexure. The success rate, procedure time, location of the feeding tube and the confirmation of its site by fluoroscopy later for the intent of the study, and the discomfort for the patient were recorded. Also, tubes were followed in time with respect to clogging, dislocation, and the possibility of repositioning in case of dislocation.

**Results** Fifty patients (24 at the ward, 21 at the intensive care (IC), 5 at the out-patient clinic) were included. Patients required a feeding tube for malnutrition (23), gastric paresis (13), pancreatitis (6), artificial ventilation (4), dysphagia and aspiration pneumonia (4). Sixteen patients were comatose, 31 were immobile or restricted in their mobility. In 36 (72%) patients the procedure was successful, in 20 of the 24 ward patients, in 13 of the 21 IC patients, and in 3 of the 5 outpatients. Thirty-two of the feeding tubes were positioned in the horizontal part of the duodenum in front of (24), at (5) or past (3) the duodenojejunal ligament. Fluoroscopy confirmed the correct positioning in front of (18), at (2) or past (14) the duodenojejunal ligament. Unsuccessful positioning was mainly related to gastric paresis and being on the ventilator. Apparently, there was a learning curve as 21 of the last 25 feeding tubes were positioned successfully in contrast to 15 of the first 25 feeding tubes. The mean procedure time of successfully positioned tubes was 12.4 minutes.

Sixteen tubes were removed intentionally, 16 became dislocated and 4 were repositioned with the electromagnetic system, 2 tubes clogged and 2 are still in situ. Nineteen patients had a functioning tube for more than 7 days. Patients scored favourably as to pain and discomfort.

**Conclusion** The positioning of nasoduodenal feeding tubes by nurses without the assistance of endoscopy or fluoroscopy is feasible and associated with a high success rate, the more so after a period of learning. The path finding system enables a safe, accurate and deep intraduodenal positioning of the feeding tube at the patient's bedside with minimal discomfort for the patient.

## **References**

- Fang JC, Hilden K, Holubkov R, DiSario JA. Transnasal endoscopy versus fluoroscopy for the placement of nasoenteric feeding tubes in critically ill patients. *Gastrointest Endosc* 2005;62:661-666.
- DiSario JA. Endoscopic approaches to enteral nutritional support. *Best Pract Res Clin Gastroenterol* 2006;20:605-630.

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# Best Poster Presentation

Presented on 28 October 2007 in Paris

## **SIMPLE ENEMAS... NOT ALWAYS SO SIMPLE**

*Rachel Leshem Namdar RN, MPA, Sheba Medical Center, Tel-Hashomer, Ramat-Gan, Israel*

The purpose of this paper is to review and discuss the potential hazards of enemas. Case example: a 65 year old hospitalized patient, suffering from constipation was treated by rectal enema. Following the enema, vomiting and clinical deterioration evolved. The patient underwent surgery, during which a rectal tear was diagnosed and a colostomy performed.

Enemas are over the counter products, frequently used by nurses to treat acute constipation or for bowel preparation prior to diagnostic and operative procedures.

In reviewing the literature, many reports of life-threatening events secondary to the use of enemas have been documented. These include: severe metabolic derangements, hyperphosphatemia, hypernatremia, hypocalcemic coma, metabolic acidosis, dehydration, cardiac arrest and death.

The elderly and pediatric populations are at greatest risk for adverse outcomes associated with the use of enema solutions.

We, the nurses, often lack scientific and practical information required to promote the effective and safe use of enemas: how does an enema work, the potential risks, the types of enemas, maximum volumes to be administered for each age, depth of catheter to be inserted, the correct position suitable to patient's age and condition, the most comfortable temperature etc.

Learning outcomes:

- define practical guidelines for the use of enemas
- awareness of the potential hazards and complications of enemas in different age groups

This report and the literature review will assist us, the gastro nurses in treating our patients, as well as improving the quality of our care and patient safety.

References:

Davies, C. (2004). The use of phosphate enemas in the treatment of constipation. *Nursing Times*; 100(18):32-5.

Mendoza J, Legido J, Rubio S, Gisbert JP. (2007). Systematic review: the adverse effects of sodium phosphate enema. *Aliment Pharmacol Ther*; 26(1):9-20.

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# Abstracts of Free Paper Sessions

## **THE INTRODUCTION OF A NURSE LED GASTRIC BAND ADJUSTMENT SERVICE FOR THE MORBIDLY OBESE PATIENT**

*Pauline Hutson, Northern General Hospital, Sheffield, Uk*

The World Health Organisation defines obesity as the main risk factor for a number of diseases but also qualifies it as a disease in its own right, (WHO 2000). In April 2007 the European Congress on Obesity in Budapest reported on the rise in morbid obesity across Europe and a subsequent drive to increase bariatric surgery. France has the highest provision for bariatric surgery despite its lowest prevalence whereas the United Kingdom has the poorest provision despite a 23% rise in obesity rates, (Birmingham 2007).

Laparoscopic gastric bypass and laparoscopic gastric band insertion are the two main procedures undertaken in Sheffield to surgically manage the morbidly obese patient. Those patients who have a gastric band insertion require regular band adjustments in order to sustain weight loss. The aim of the study therefore is to demonstrate how the gastric band can induce weight loss and how the mechanics of the band affects diet in order to control weight.

The silicone band is placed around the upper portion of the gastric body and this is then inflated six weeks post-operatively. The gastric portion above the band then forms the new stomach or pouch and acts as a reservoir for food with a reduced capacity for intake. However, regular band adjustments are essential due to depleted band pressure over time and these were originally undertaken by one Consultant

Radiologist and integrated into existing lists. Due to the increasing workload, an unmanageable backlog of patients waiting for band adjustment initiated a review of the service. As a result, a nurse-led service was proposed and accepted by the Trust. One dedicated list per week was also proposed and accepted. Training to perform gastric band adjustments was undertaken by the Nurse Practitioner and a Radiographer and conducted by Consultant Radiologist Dr Fred Lee.

The adjustment of the gastric band is undertaken radiologically in order to provide adequate restriction, induce satiety with small portion sizes and so reduce and control weight without compromising the patient's nutritional status. This is achieved by injecting radiological contrast into a small reservoir or port sited subcutaneously on the upper abdominal wall and connected to the band via a silicone tube. The diameter of the band is reduced as the hollow interior fills with contrast. A barium swallow is then undertaken to assess the diameter of the stoma and determine whether this is adequate. The patient may need to have this repeated several times until adequate weight loss has been established.

The introduction of the service has reduced the waiting time for band adjustment from 3-4 months to 3-4 weeks. A weekly list is now established and patients can access the service through telephone contact with the Nurse Practitioner. This ensures that all adjustments are appropriate and weight loss is not compromised by excessive waiting periods between adjustments.

## References

1. Birmingham K (2007) Bariatric Surgery Under Scrutiny, Gastrointestinal Nursing Vol.5 No.4 p6
2. World Health Organisation (2000) Obesity: Preventing and Managing the Global Epidemic WHO Technical Report Series 894 Geneva : WHO

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## **EXTENDED ROLES IN ENDOSCOPY NURSING - CAPSULE ENDOSCOPY**

*Joe Garzia Stafrace, Saint James Hospital, Malta – Europe*

Till 2001, procedures used to visualise the small intestine for the diagnosis of the various pathologies included small-bowel follow through, enteroclysis, and computerised tomography. These tests however could not provide unquestionable results when it came to flat mucosal changes, resulting in the further need of more investigations and related increasing costs.

Capsule Endoscopy was FDA approved in July 2003 as the first-line diagnostic tool for small-bowel investigation. This followed results achieved from a meta-analysis report consisting of 32 independent studies (Lewis, Elsen, & Friedman, 2004).

Between October 2004 and April 2007, 29 Capsule endoscopies were performed with very encouraging results at this centre. These non-invasive procedures were all follow-ups from inconclusive upper and lower endoscopies and yielded conclusive diagnosis in 75% of the cases. Nonetheless, the over 50,000 images acquisition and interpretation related to this wireless Endoscopy is a time consuming process which has been the main draw-back that was holding this investigation from becoming the main line of choice for small-bowel investigation.

The role of the specialised Endoscopy Nurse has been instrumental in challenging and changing this perspective, through the application of 'first interpretation' intervention, and other roles. The nursing involvement ranged from receiving the clinical referral, pre-procedural assessment, bowel preparation information, setting

and applying the system, and downloading, to viewing and thumb-nailing abnormal images from the procedure. Cases and findings were discussed clinically with this same Nurse.

Also of relevance in this study, were the images detected by the nurse during the first interpretation, which were 95% accurate, compared to those identified by the physician. Referrals varied from unexplained anaemia, obscure occult bleeding, and suspected IBD. Findings were consistent with most of these indications, ranging from Crohns, AVMs, angiodysplastic lesions and a carcinoid tumour.

The expanded role of Endoscopy nurses is vital towards the expansion of this dynamic specialty, and Capsule Endoscopy should be one of these roles. International Endoscopy Societies should recognise, formalize, and support these initiatives. Undoubtedly, more specific and dedicated training is necessary, supported by research. Clinical staff participation in the process of nursing research is critical, as well as the use of evidence to drive nursing interventions (Clark, 2006).

## References

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## DOES LEVEL OF INFORMATION ABOUT INFLIXIMAB TREATMENT TO INFLAMMATORY BOWEL DISEASE PATIENTS INFLUENCE HEALTH QUALITY OF CARE? A DANISH CROHN COLITIS DATABASE

*Lene Neergaard, Yvonne Krogager, Charlotte Kühnel, Lise Olsen, Johan Burisch, Margarita Elkjær, Kirsten Ravn, Pia Munkholm. Herlev Hospital, University Of Copenhagen, Denmark.*

**Aim:** Providing information to Crohn's disease (CD) and Ulcerative colitis (UC) patients has been shown to influence on Quality of Health Care (QoC)<sup>1</sup> and Quality of Life (QoL). To validate anxiety and depression scores and QoL in IBD patients we intended to supply the oral and written standard information (SI) relating infliximab (INF) treatment at the Patient Educational and Infusion Centre, by creating a take home video (DVD) about the procedure.

**Method:** Development of a script and acting in the DVD were carried out by the staff of nurses, medical doctors and a CD patient. To illustrate the biological effect of INF inside the patient a computer animation was developed. A professional film crew made the DVD. Experience from INF patients in the DCCD, 1998-2005 created the basis of information level<sup>2</sup>. The staffs does nationally registration of the indication and response to INF, concomitant immuno-modulation therapy, infusion time, adjuvant therapy and side effects during and after last infusion, occurrence of pregnancy, cancer and death<sup>2</sup>. Scoring was carried out on two levels of information: 1) SI before an INF infusion vs. 2) adding DVD before the next INF infusion. Validated scoring systems were used: HADS (Hospital Anxiety & Depression Scale; range 0-42: 0-7 normal, 8-10 borderline, ≥11 anxious and/or depressed), S-IBDQ<sup>2</sup> (Short-Inflammatory Bowel disease Questionnaire; range 10-70: good QoL >55) and a Questionnaire of patient's satisfaction (QPS).

**Results:** 24 consecutive IBD patients (3 UC) were included. 92% of patients found the DVD about Remicade to be informative and 71% beneficial to friends and family. But although adding new knowledge and giving a feeling of security, the DVD was not sufficient (71%) but only considered as supplementary to written (86%) and oral (100%) information. It was the general opinion, that knowledge increases the quality of life (71%) and feeling of security (42%).

CONCEPT OF INFORMATION	HADS Anxiety	HADS Depression	S-IBDQ
SI	4 (range 0-13)	2 (range 0-10)	48.5(range 29-67)
SI + DVD	3 (range 0-13)*	3.5 (range 0-10)*	48 (range 21-70)*

\* NS

**Conclusions:** The DVD did not increase level of anxiety and depression score nor the S-IBDQ. Overall the new method to inform both the patients and their relatives by a take home DVD comforts the IBD patients Need of Quality of Health Care.

#### References:

1. van der Eijk I, et al. Influence of quality of care I on quality of life in IBD: literature review and studies planned. E J Int Med 2000; 11;228-34.
2. Elkjaer M et al. Long-term outcome of Infliximab treatment in the National Danish Crohn and Colitis database from 1999-2005. Gut 2006; suppl. nov vol 55, A41, OP-G-182

## ALCOHOL ABUSERS IN SOMATIC WARD. HOW TO MAINTAIN ABSTINENS POST DISCHARGE – A RANDOMIZED CONTROLLED TRIAL.

*Palle Bager, Medical Department V, Aarhus University Hospital, Aarhus, Denmark.*

**Objectives:** The primary objective was to investigate whether intensive follow up based on Motivational Interviewing could have any effect on numbers of patients abstinent from alcohol abuse in an 8 weeks follow up period post discharge from somatic hospital (1). The secondary objectives was to identify patient's characteristic for alcohol abstinent 8 weeks post discharge from hospital and to monitor whether tools to measure the patient's motivation to remain abstinent, could be used to identify subjects with high chance of remaining abstinent in the follow up period.

**Method:** A Randomized Controlled Trial with consecutive inclusion of patients admitted to Aarhus University Hospital, Denmark, with the diagnosis of harmful use of alcohol. Randomized 1:1 to receive either; active intensive follow up in 8 weeks post discharge from hospital based on Motivational Interviewing and performed by nurses or social workers; or discharge from hospital using the wards normal practice.

**Population:** 50 patients admitted hospital with the diagnosis of harmful use of alcohol using in the ICD 10 classification (2). All patients where active drinkers prior to admission and where expressing motivation for alcohol abstinence at baseline.

**Measurements:** At baseline patient characteristics, based on Addiction Severity Index (ASI) where collected (3). Also questionnaire to measure the motivation of alcohol abstinence among the patients where collected. Subjective estimate of the patient's motivation for alcohol abstinence where performed by a nurse or social. At week 8 drinking status where measured.

**Results:** There where no major difference at baseline between the 2 groups. Overall 40 % of the patients where active drinkers at follow up; 25 % in the active arm; 55 % in the placebo arm. Statistic tests show a slight significance:  $p=0.05$  (Chi<sup>2</sup>-test);  $p=0.07$  (Fisher exact test). No significant characteristics to predict abstinence at follow up where identified. No significant characteristics for motivation or the subjective estimate could predict abstinent at follow up. **Conclusion:** An intensive follow up, performed by trained nurses or social workers, given to motivated patients with the diagnosis of harmful use of alcohol post discharge from hospital, could increase the numbers of patients abstinent after 8 weeks with approximately 50 %. No client characteristics or no tool for measurement of motivation to predict abstinence where identified. Subjective estimates of the patient's motivation performed by nurses or social workers could not predict witch patients where abstinent at follow up.

#### References:

1. Miller WR, Rollnick S (2002). Motivational Interviewing. The Guilford Press. London.
2. ICD-10R. Diagnostic criteria for research (1993): World Health Organization, Geneva.
3. McLellan A.T. et al. (1992): The fifth edition of the Addiction Severity Index. Journal of Substance Abuse Treatment nr.9/1992 (199-213).

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## OUR EXPERIENCE ON HOW TO KEEP EACH INDIVIDUAL ENDOSCOPE AS A UNIQUE SET OF EQUIPMENT

*Arezoo Etezadi, Endoscopy Unit, University Hospital of Wales, Cardiff, CF14 4XW, Wales, United Kingdom.*

**Introduction:** The key area of concern in Endoscopy is the prevention of cross infection through safe practice. To be able to decontaminate and track all endoscopes with their reusable parts. The National Endoscopy Programme for decontamination standards for flexible endoscopes (2007) states: "That all valves including removable parts are kept with each endoscope to form a unique set of equipment" to minimise the risk of cross contamination.

**Aim:** The aim of the project was to find a product on the market which enables endoscopes and their valves to be kept together as a unique set. To allow the tracking and trace ability of the reusable valves and minimise cross infection.

**Current Practice:** All biopsy port inlet valves and distal tips are used as single use after each patient. The suction, air/water valves and flush buttons are not single use and need to be reprocessed; they do not have any individual identification numbers. Therefore it is hard to track and trace them and too expensive to use as single use each time.

**Method:** A project team looks at how this change in practice could be implemented. Only one product was found on the market "a metal tea strainer (Endoscopy accessory holder)". These were sold by a medical company for 14 Euros (£10.00). A total of 40 were purchased at a cost of 560 Euros (£400.00) one for each of our scopes plus some spare. To identify each tea strainer with its own endoscope a patient identification band was fitted with each scope identification number on it. More suction and air water valves had to be purchased allowing two complete sets for each scope at a cost of 17140.84 Euros (£12,000). The tea strainer is kept with the scope at all times, except at post procedure the tea strainer is washed separately

to endoscope and valves, then placed in the AER Automatic Endoscope Reprocessor.

**Results:** All staff took on board the change in practice. A trial period was put in place to monitor the system. Guidelines were written for the change in practice. To implement this change there was a cost implementation of 17702.84 Euros (£12,400). Monitoring of the effect of the tristel on the metal tea strainers would be ongoing.

**Conclusion:** The change in practice has now provided a system whereby the endoscope and its valves are a unique set, with the ability to ensure tracking and tracing of the scope and its accessories. The new practice allows for tracking and tracing through the decontamination process and from patient to patient. This minimises the risk of cross contamination and provides best practice.

**References:**

Department of Health (2007). Decontamination Standards for Flexible Endoscopes. National Endoscopy Programme.  
 Department of Health (2005). Decontamination of Endoscopes. Medical Device Agency Bulletin MDA DB 2002(05)

**NURSE EDUCATION IN ENDOSCOPY: ACHIEVING COMPETENCY BASED PRACTICE**

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**Introduction** Endoscopy is a growing area of care delivery within the National Health Service (NHS) due to increasing demand for the diagnostic and advanced technological and therapeutic interventions it can provide. This change in service provision has had a significant impact on the role of the endoscopy nurse. This role was traditionally learnt through observation and participation in procedures but over recent years the need for a more structured approach to the assessment of competency within this field of practice has grown. To a certain degree, this has also been in response to developments within the Nursing and Midwifery Council (NMC) particularly concerning the Code of Professional Conduct (NMC 2004) and ensuring Fitness for Practice.

**Aim** It was our aim in the Endoscopy Unit at the Leeds Infirmary to devise a comprehensive tool that would guide the nursing staff in their learning and allow them to become competent practitioners in the necessary skills and techniques required to assist in endoscopic procedures.

**Objectives** It was apparent that a clear, structured approach to nurse education in endoscopy was required. Factors influencing this included:

- Specialised area of practice
- Diverse role of the endoscopy nurse
- Rotational posts
- Vast assortment of equipment
- Nurses accountability
- Patient safety

Clinical Learning Outcome: General Care of the Patient in the procedure room			
	Date Activit y Observ ed	Date of Assessment and Performance Rating	
<b>Performance criteria:</b>			
Provides reassurance and attempts to relieve anxiety as appropriate			
Maintains patients privacy and dignity to the best of their ability			
Ensures appropriate monitoring in situ for each patient			
Ensures oxygen supplementation available for each patient			
Demonstrates understanding and awareness of changes in the patients observations and/or physical condition			
Able to communicate effectively with the endoscopist before, during and after the procedure particularly with regard changes in the patients condition			
Ensures all care, complications and interventions carefully recorded in the appropriate documentation			
Communicates effectively with the recovery nurse and includes details of the procedure and any specific post procedure measures			

**Method** An induction booklet had been developed some years ago for the purpose of identifying learning needs associated with endoscopy procedures. However, this was essentially based on exposing new staff to procedures and encouraging them to learn by observation and participation. There was no formalised method to assess their competency at the end of this process. This has been updated more recently and now includes a Performance Rating Scale based on the work of Herman and Kenyon (1987). This has now become the foundation for the assessment of competence in endoscopy, used in conjunction with Clinical Learning Outcomes that outline the specific Performance Criteria required to achieve competency (see diagram). Each new member of staff is allocated a Preceptor who will facilitate this process and review progress at regular intervals. The aim is for competence to be achieved within six months.

**Outcome** Nursing staff in endoscopy have benefited from utilizing this educational framework. It provides evidence of their competency, supports them through their rotational posts by helping them develop transferable skills and encourages standardised practice throughout endoscopy.

**Learning Outcomes** 1) A structured approach to education promotes standardised practice and supports quality assurance. 2) Not only does it assist staff to develop transferable skills but it helps to identify those who may require extra support at an earlier stage.

**References** 1) Nursing and Midwifery Council (2004) The NMC code of professional conduct: standards for conduct, performance and ethics. London, UK. 2) Herman GD and Kenyon RJ (1987) Competency Based Vocational Training: a case study. Further Educational Unit, London.

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## **SCHEDULED HOME CALL AFTER HOSPITAL DISCHARGE – PILOT STUDY FOR COLO-RECTAL PATIENTS**

*Elina Mattila, MNSc, RN (Director of Nursing), Teija Liimatainen RN (Head Nurse), Juhani Sand, MD, PhD (Director of Division). Division of Surgery, Gastroenterology and Oncology, Tampere University Hospital, Tampere, Finland.*

### **Introduction**

The length of stay (LOS) after major abdominal surgery has shortened and well planned treatment protocols have been developed to enhance recovery (Wilmore & Kellet 2001). Shorter stays are a challenge for personal how to teach all the essential things and how to be sure that the patient has understood the important things concerning his disease and recovery (Buetow & Coster 2001). In order to facilitate the discharge and to increase the confidence, patients should have an easy possibility to contact health care personal after the discharge from hospital (van den Borne 1998, Redman 2001). Such methods might be a scheduled visit by nurse or a home calls (Moore & Estey 1999). The aim of our study was to create a model for home call in order to facilitate safe discharge after alimentary tract surgery.

### **Patients and Method**

A multidisciplinary work group established the aims and the model for home call and created a structural questionnaire. The important aspects in questionnaire dealt with post operative pain, wound healing, eating, bowel function, mobilisation, stoma care, need for home care and further follow-up and treatment schedule. The patients were also asked whether this kind of home call model might even shorten the LOS. The pilot study group consisted of 20 colorectal patients (8 males and 12 females; median age 50 yrs (range 25 – 74 yrs) and eight out of 20 patients had stoma. Patients were

informed about approximate LOS and post discharge home call already prior or at latest in the beginning (emergency patients) of the hospitalisation.

### **Results**

Home call was made by the patients own nurse two days after the discharge. The mean duration of the call was 15 minutes. Ten patients (50%), felt that home call encouraged them to earlier discharge and 17 (85 %) patients reported, that they had managed well or very well at home. The most common complaints compromising the well being had been post operative pain and disturbed gastrointestinal motility. Median LOS was 7 days without changes during the pilot period.

### **Conclusions**

Scheduled home call improves the patients experience of good quality of care and it increases the patients confidence during and after the discharge. Further larger studies are warranted to confirm whether this kind of model could further shorten the LOS and decrease the need for re-admissions and non-scheduled contacts to different primary or secondary care units.

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## **ELECTRONIC DOCUMENTATION – OF CARE, NURSING INTERVENTION AND QUALITY ASSURANCE INCORPORATED INTO ENDOBASE FROM OLYMPUS ®.**

*Else Hove Kristensen – Clinical Nurse Specialist<sup>1</sup>, Anne Mette Andersen – Endoscopic Nurse<sup>1</sup>, and Torben Bauer – Head of the Endoscopy Unit, M.D.<sup>1</sup>. 1: The Endoscopy Unit, South Regional Hospital, Naestved, Denmark.*

**Background:** For more than 10 years our Endoscopy Unit has used a rather thoroughly documentation prior to any endoscopic examination. This has been based on paper version with the use of yes and no boxes including information about earlier and present illness and concomitant diseases.

Registrations of blood pressure, heart rate and oxygen saturation have also been recorded together with information about the present medication of the patient. Nurses in our department have always prior to the endoscopy performed the collection of these data.

**Aims/Objectives:** With the introduction of EndoBase- database from Olympus ®, we wanted to convert the former paper documentation into an electronic documentation. However, the EndoBase didn't contain such a function. We found it of great value if the electronic documentation could be incorporated into the EndoBase. It would give us the opportunity to make the Endobase complete within all information's from the physicians and the nurses.

**Results:** We did succeed converting our former paper documentation into the EndoBase. In addition we are now automatically able to record information about blood pressure, heart rate and oxygen saturation. During the examination, we are also able to record the use of medication. In case of further observation of the patient after the examination, the patient is admitted to the recovery room and information collected here is also gathered into the EndoBase.

**Conclusions:** The EndoBase already gives information about the cleaning and decontamination procedures, historic of the endoscope and different information including pictures gathered during the examination for each specific patient. The EndoBase ends up with a full medical journal using a structural terminology, which can be either printed or mailed electronic to the referring physician. Altogether this provides a full documentation for all parts of the endoscopic procedure.

The documentation performed by the nurses including observation after the endoscopy in the recovery room complete all relevant documentations, thus giving a lift of quality and safety for the patient.

**Future:** We are constantly trying to develop and make it more functional for the users of the EndoBase. Actually we are working on an outpatient electronic documentation prior to colonoscopy. Many of the elements will be incorporated so the physician and the nurse in the Outpatient Clinic will obtain a more accurate indication for the colonoscopy, make sure that the patient accepts and gives the informed consents and the approval of the bowel cleansing regimes before the examination.

**Learning outcomes:**

1. A complete tool to ensure the quality of documentation for a successfully patient treatment, giving a homogeneous quality.
2. Decontamination procedure documented for each scope – statistically tool.
3. Improved education of all personnel in the Endoscopy Unit.

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**DEFINING THE ROLE OF THE INFLAMMATORY BOWEL DISEASE NURSE. A NATIONAL UK PROJECT.**

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On behalf of the RCN Inflammatory bowel disease Special interest group for nurses.

**Background:** Inflammatory bowel disease nursing is rapidly expanding speciality in the UK, with approximately 120 nurses working at specialist level (Younge, 2004). Evidence suggests that the role is poorly defined (McLaren et al, 2006) and the level of practice by specialist nurses in this field varies greatly (Nightingale et al, 2001). The following paper discusses the development of a project to define competencies necessary for safe practice of specialist nurses in the UK.

**Methods:** In 2006, the inflammatory bowel disease special interest group for nurses identified the definition of the role of the inflammatory bowel disease nurse specialist as a key aim for the group. As a result, a steering group was established in June 2006, consisting of key representatives of the UK inflammatory bowel disease nursing community. Initially a national audit of the role was completed, to identify the

scope of the role and levels of practice specialist nurses were undertaking. Using this information a draft framework for the document was developed.

Building upon the framework, an extensive literature review was undertaken and an evidence based framework devised. This was underpinned by the knowledge and skills framework (DH, 2005). A period of national consultation was undertaken from January 2007 to April 2007, the document being distributed for feedback at British Society of Gastroenterology conference and online at [www.ibdnurses.com](http://www.ibdnurses.com). Following collation of the data gained from consultation, further amendments to the document were made. The document was then reviewed by the steering group, and further work was completed in conjunction with the Royal College of Nursing, and an approved competency framework developed.

**Results.** A document outlining standards for practice has been developed. The document is divided into two sections; the first part reflects generic qualities of nurses within the specialty and the second part of the document recognizes the specialist competencies required for delivering an inflammatory bowel disease nursing service, i.e. administering TNF therapy, caring for patients with a new diagnosis of inflammatory bowel disease. The document recognised that nurses may offer all or part of the services listed, and develop their unique competency framework. It is envisaged that each of the competencies will be reviewed by the special interest group and national best practice guidelines developed.

**Conclusion:** The development of competencies for the role of the inflammatory bowel disease nurse specialist has enabled the role of the specialist nurse to be defined and a framework for nursing practice to be based upon.

**Learning Outcomes:**

1. The importance of defining competency of practice.
2. Insight into IBD Nursing in the UK.

**References:**

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## **ENDOSCOPY NURSING: ROTATIONAL POSTS - THE CIRCLE OF CHANGE**

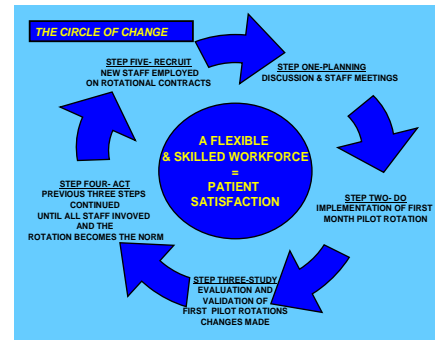
Jo Corrigan, *Endoscopy, Leeds General Infirmary, UK.*

**Introduction.** The endoscopy services within the Leeds Teaching Hospitals Trust are split across four sites. Historically these four sites operated independently of each other with differing service delivery approaches. The service has undergone changes, influenced by advancing therapeutic techniques, and the appointment of a cross city consultant endoscopist. In January 2006 a senior sister from one of the large acute hospitals was asked to take charge of one of the smaller peripheral sites. It became apparent that there was a need for staff development and training particularly in advanced therapeutic intervention, where the skills the nurses possessed were limited. The success of rotational posts in other specialties provided a foundation on which to build. (Richardson, Douglas, Shuttler, Hagland 2006)

**Aim :** To enable the team to develop skills, under the supervision of a manager, by rotating between the sites, thus enhancing the delivery of care provided to patients, and as a result providing a more skilled workforce (Department of Health 2004).

**Objectives:-** A structured development programme was required to enhance nursing skills and to facilitate the standardisation of practices. There were clear drivers for this change: - introduction of new techniques, equipment, policies and procedures and the need to gain a wider perspective of the Trust, and world of endoscopy beyond their own working environment.

**Method.:-** Proposals were discussed with senior managers and personnel. Staff meetings were held in units on all hospital sites, to discuss the rotations, and the underpinning principles. An informal “pilot rotation” would commence, with the senior trained nurses rotating for two days per week, and lasting one month initially. The diagram illustrates a change cycle incorporating the five steps used to structure the change to a rotational approach.



**Outcomes:-** The first nurses to experience the rotations were, extremely positive, and motivated. The experience they gained combined with the development of their existing skills has provided the endoscopy services in Leeds with a highly skilled workforce. After a year of the informal rotations and constant evaluation and amendments we now employ all nurses to endoscopy on rotational contracts, and the first 6 month rotation between three sites has completed successful. Now when faced with complex therapeutic procedures, the nurses are ready to accept the challenge and thrive on the learning experience

**Learning Outcomes.:** 1) A structured rotational programme is required in order to provide the nurses on the programme objectives and aims to aid their own development.  
2) Rotational posts within endoscopy do work if someone pursues the idea and does not give up due to the resistance to change!

**Conclusion:-** We now have a more flexible and skilled workforce with improved job satisfaction. Practice standards are optimised across the trust ensuring that both the patients and clinicians can have the confidence in the level of service they receive.

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## DEVELOPING AN ADVANCED NURSE PRACTITIONER GASTROENTEROLOGY ROLE – THE IRISH EXPERIENCE

Dr. PWN Keeling, FRCP, FTCD Dr. S. Norris, PhD, Dr. A. Zaheer, Ms. R. Gillen, RGN, Ms. B. Gallagher, RGN, Ms B. Troy, RGN, Ms, U. Kennedy, RGN, Ms S. M. Hough, RGN, BSc, MSc St. James's Hospital, James's St., Dublin 8, Dublin, Ireland. [shough@stjames.ie](mailto:shough@stjames.ie)

**Introduction:**

An overview of the development of the role of Advanced Nurse Practitioner Gastroenterology, in our institution. This role, with nurses performing upper and lower endoscopy, has developed significantly in other countries over the past decades. We had no experience of this role in Ireland. We describe the theoretical and practical training given and the outcomes of training and the first practice audit of this role.

**Aim:**

The nurse was trained to perform endoscopic procedures in response to an increased demand on endoscopy resources. The training period was 2 years. A Masters level degree is necessary to practice at an advanced level in Ireland.

**Method:**

The nurse performed 313 upper gastroscopies and 373 lower endoscopies during the training programme. Two consultant gastroenterologists and a hepatologist in consultation with senior nursing management under the auspices of the National Council for the Professional Development of Nursing and Midwifery developed the training programme. The nurse attended anatomy classes, in addition a basic skills training course in upper and lower endoscopy was attended in the United Kingdom. Pharmacology tutorials were attended at local level.

**Results:**

Initial results were positive. The role was accepted by patients. No patient refused an examination by the nurse. Most doctors were positive regarding the role. Medication to induce conscious sedation is administered via patient group directives.

**Conclusions:**

The nurse runs her own list, in addition to reviewing patients on an outpatient basis who fall into the inclusion category agreed by the parties. Patients referred to the unit have their referrals assessed by the endoscopic registrar and put on the nurse list as appropriate. A consultant is always on the floor and available when the nurse is scoping. The nurse has broadened the service available to our patients. There is considerable flexibility as the nurse can perform both upper and lower endoscopy.

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**Learning Outcomes:**

Practical experience in setting up a training programme  
Identify areas that need to be addressed in training.

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# Abstracts of ESGENA Poster Session

## COMMUNICATION: THE MAIN OBJECTIVE FOR THIS YEAR

*Pilar Pérez-Rojo, Natalia Pérez-Mendioroz, Concepción Montes, Elena Ruiz, Miguel Muñoz-Navas. University Hospital of Navarra. Pamplona. Spain.*

Management by Objectives (MBO) is a process of agreeing upon objectives within an organisation so that management and employees agree to the objectives and understand what they are.

In theory, it is all too easy for managers to fail to outline, and agree with their employees, what it is that everyone is trying to achieve. MBO substitutes for good intentions a process that requires rather precise written description of objectives (for the period ahead) and timelines for their monitoring and achievement. The process requires that the manager and the employee, in this case the supervisor and nursing team, agree to what the first one will attempt to achieve in the period ahead and (very important) that the nurses accept and agree to the objectives (otherwise commitment will be lacking).

Last course, in our Endoscopy Unit, during a working session, we decided the objectives for the period (October 2006 – June 2007). All of us usually complain that the news never run through the unit and only one or two people, depending on the situation related to “the font of information”, had access to it.

Then, we realised that one of the areas susceptible to improve was the communication. That was in two aspects: among nurses and between doctors and nurses. We decided this subject as one of the objective of the year. In order to know the magnitude of the problem we started to do a survey among the nurses and assistants of the Unit.

The questionnaire was distributed to 10 people.

The main questions were:

In your opinion, does it exist a fluent communication between doctors and nurses? and among nurses? The answer was “no” in 80% of the cases.

Do you usually communicate the news to the rest of the team as soon as you heard it or only if you consider it relevant? The answer was “yes” in 80% of the cases.

Do you think that the atmosphere is favourable to communicate? The answer was “no” in all the cases.

Who is the right person to say the news? All of them answer that thought the director and the supervisor.

Do you have any suggestion to improve it? Meetings, computer, blackboard...

In resume, the results of the test were variable in some aspects. But is interesting that all people feel that they usually communicate the news to the team, but the rest do not do the same to them. This is a good point for make a reflection.

The effective communication is essential and it is important to be sure (vg. by signature) that people understand and know the news.

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## JCI ( JOINT COMMISSION INTERNATIONAL) STANDARDS AND PATIENT SAFETY MODEL IN IZMIR KENT HOSPITAL ENDOSCOPY UNIT

*N. Tüzomay, Z. Kızılay, F. Asıbostan, H. Elmas, E. İzgördü, B. Açıl, B. Şengül, E. Tankurt, Kent Hospital, İzmir, Turkey*

Our main purpose is to promote development and quality increase regarding patient safety and patient satisfaction issues in our hospital which is accredited in 2006.

In our endoscopy unit, an endoscopy patient safety system has been established accordingly to JCI criteria and ASGE criteria.

### PATIENTS AND METHODOLOGY

In January, February, March 2007, 351 endoscopic procedures have been done in Kent Hospital Gastroenterology

Table: 1	JAN.	FEB.	MARCH	Total
Upper GI endoscopy	80	89	94	263
Colonoscopy	24	27	27	78
ERCP	2	3	5	10
Total	106	119	126	351

Before any procedure in endoscopy unit, primary doctor gets a consent form filled and signed from the patient with handwriting. “Sedation and Analgesia Follow Up” form is filled preoperatively. On this form, identity information, protocol number, date of birth, chronic diseases, prior surgeries, medicine usage are questioned and the patient is informed about the procedure. If the procedure will be performed under anesthesia, “Anesthesia Consent Form” is filled and the patient and family are informed about possible complications of anesthesia. Vital signs and pain assessment results are registered on follow up form. Sedation procedure is performed according to LOC Sedation Scoring System. Vital signs are regularly controlled in every 10 minutes during the procedure. Patient is positioned according to related procedures and preventive measures are taken for falling risk. Vital signs are controlled one more time and patient is transferred to the observation room. Interventional sedation and post-

analgesia discharge forms are given to the patient and relative before the patient leaves the unit. In addition, patient is informed verbally before he / she leaves. Documentation regarding the procedure and discharge is prepared as a folder for every single patient and kept in the archive. A fully equipped crash cart is controlled according to JCI procedure every day and it is kept in the most suitable place for the nurse to reach in any case of complication. Blue code is taken action in any possible complication. Routine tests, maintenances and quality controls of the endoscopy equipments are done before and after the procedure. Equipments are disinfected according to JCI standards. Disinfection strip control is performed before every procedure during the disinfection control. Results are documented on "Disinfection Control Form" Infection Control Committee performs a microbiologic control according to EGSE Guideline in every three months and these results are documented on the form.

Table 2

ENDING THE PROCEDURE:	0 Patient; % 0			
PERFORATION	0 Patient; % 0			
DECREASE	ON	OXYGEN	SATURATION	(< 90):
		5 Patients; % 4,13		
TOTAL NUMBER OF PATIENTS:	351 Patients			

Complications of 121 patients are listed on Table 2. Oxygen saturation of five patients mentioned above is decreased and procedures are carried on under nasal oxygen support.

One of the most important factors which determine service quality in an endoscopy unit is the patient safety. Patient safety becomes the most important factor with the increase of public awareness. As a result, it is considered that an updated service with good quality will increase the patient satisfaction and it will make a reductant effect on unwanted events.

Reference:

JCI.Accreditation of. Healthcare Organizations  
 ESGE- ESGENA Guidelines Webpage [www.esgena.org](http://www.esgena.org)

## GASTROINTESTINAL ENDOSCOPY & THE ELDERLY PATIENT – A NURSING

### CHALLENGE

*Ane Isabel Linden, Suzana Müller, Brazilian Society of Gastrointestinal Endoscopy Nursing – (Sociedade Brasileira de Enfermagem em Endoscopia Gastrointestinal- SOBEEG), Porto Alegre – Brazil*

**Introduction:** Human aging is an unprecedented phenomenon in mankind history. The impact of age on medical care is substantial and demands significant alterations in the approach to the older patient. As individuals age, they are more likely to suffer from some disease, and have a decrease physiologic reserve. In addition to this, the life style has changed, and many individuals have poor eating habits, with limited nutritional and fibers intake, as well as sedentariness, for instance. The decrease of colonic motility, anorectal function and gastric acidity, and moreover, decrease of hepatic function, common findings in the elderly patients, usually require diagnostic procedures, such as gastrointestinal endoscopy.

**Objective:** The aim of this study is to verify which are the most important implications for the evaluation, treatment and nursing care in gastrointestinal endoscopy area of geriatric patients.

**Methods:** A bibliographical review about relevant age-related changes and their consequences was developed. Based on this, a nursing care protocol was established.

**Results:**The most relevant age-related changes are: cardiovascular disorders, and hydroelectrolytic unbalanced, demanding to the gastrointestinal nurse advanced monitoring during the endoscopic procedures; iatrogenic drug reactions, requiring careful assessment due to the sedatives and anticholinergic drugs administered during endoscopy; colorectal dysfunction and constipation, asking for special attention during the colonoscopy preparation; neuropsychiatric disturbed responses, requiring careful evaluation and handle; musculoskeletal fragility, therefore a procedure room nurse must take attention to the patient position and motion during exam, in order to prevent injuries.

**Conclusions:** We can conclude that much can be done to guarantee a safe and effective gastrointestinal endoscopy as well as to prevent injuries in the elderly patient, provided that a careful assessment and nursing care be ensured. Nevertheless, a well established protocol also requires that gastrointestinal nurses be gentle, kind and respect that many of the elderly patients are independent, and must not be assumed to be sick or functional impaired, but individuals with special needs and wishes.

References:

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## SOCIAL DEMOGRAPHIC PROFILE OF THE IMMIGRANT POPULATION ATTENDED IN ENDOSCOPY SERVICE IN FUENLABRADA HOSPITAL, MADRID, SPAIN

*Diaz-Rodriguez, Dania-Rocio; Granados-Martin, Monica; Pablo-Leis, Ana Isabel, Hospital de Fuenlabrada, Fuenlabrada, Madrid, Spain*

**Introduction:**

Immigration has increased remarkably in Spain over the past ten years. The new social and demographic framework in Spain that has appeared since the arrival of new migrant populations, raises the need to improve the knowledge of their health status

and to identify preventive measures and priorities in health services. For the nursing profession represents the challenges the immigrant care. When attending the immigrant people, we find cultural and idiomatic barriers. Some studies say that immigrants agree to questions which are not fully understood, or try to be "politically correct". There are communication difficulties with the patients because they pretend to understand things that they don't really understand, trying to look politically right. The objective of this study is to describe the social-demographic characteristics and understanding of the Spanish language of the immigrant population attended in our service.

**Methodology:**

A descriptive observational study was put in practice between March and June 2006. Were selected as immigrants (patients born out of Spain) 102, 92 of them were able to finish the questionnaire. The data was collected from a survey taken before starting the endoscopy. They were older than 16 years old and mentally competent. Demographic variables were studied as well as levels of comprehension of the Spanish language. The data were analyzed by SPSS 10.0

**Results:**

54,9% were males. The average age was 38,8 (SD 11,82 years old). 72,8% were active workers and 14,1 housewives. 48,9% of them had completed secondary education and 28,3% had primary education. 38,3% of the immigrants patients came from Africa (Morocco, Ecuatorial Guinea); 33,3% from Latin American (Ecuador, Colombia, Perú). From Europe were 22,5% (Romania, Portugal, Ucrania) and finally from Asia and Russia were 5,9%. Spanish language is mostly their mother tongue (41,3%) and the rest is: Arab (21,7%); Rumanian (9,8%); Portuguese (6,5%); Chinese (4,3%); and Russian (2,2%). The comprehension in mother tongue is 88% oral and written and 12% just oral. On the other hand, Spanish is understood oral and written by 78,3%, just oral 12% and with an interpreter 9,8%. They have been living in Spain for 1 year or less: 11,5%; 1 – 5 years 7,7% and more than 5 years 63,7%.

**Conclusions:**

The immigrants patients who goes to Endoscopy Service are basically females, from Africa and Latin America, 38,8 years old as average, is an active worker after their secondary or primary studies, and they have been in Spain for more than 5 years. The mother tongue in 21,7% was Arab, 9,8% Rumanian and Portuguese 6,5%, so the level of comprehension would be less except considering that nowadays 78,3% understands and reads Spanish. 9,8% need an interpreter (53,3% came not alone, with people who speaks as well as or better than him or her in 95,5%). As Spain is a country that welcomes immigrants, we believe that it should be taken into account to the access in Health Services, and considering the cultural and languages barriers.

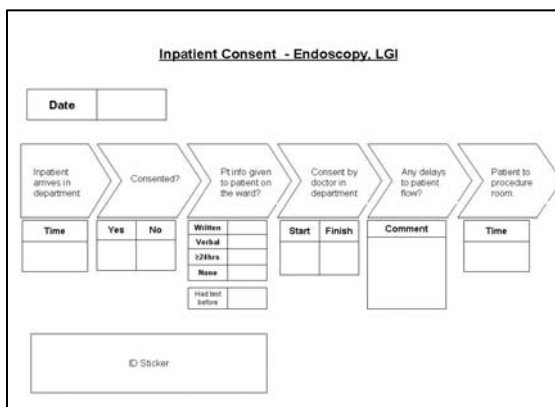
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**QUALITY ASSURANCE AND THE CONSENT PROCESS: INPATIENT CONSENT IN ENDOSCOPY.**

*James Meadows, Gerri Beech and Rachel Lynch. Endoscopy, Leeds General Infirmary, Leeds Teaching Hospitals Trust, Leeds, LS1 3EX, UK.*

**Introduction** The consent process is fundamental to the safe and successful completion of procedures in endoscopy and as such its importance as an integral part of the patient's pathway cannot be ignored. Guidance has been provided in the UK (for example, Department of Health 2001) in an effort to assure the quality of this process. In short, the important components of consent are: sufficient descriptive information, weighing benefits against any risks, understanding of the information, time to assimilate information and change mind (ideally 1-7 days) and voluntary agreement (Shepherd 2002). However, a recent survey by the European Society of Gastrointestinal Endoscopy (ESGE) (2002) identified that the procedure for obtaining informed consent varies considerably.



**Aim** Our aim was to identify if the process of consent for inpatients attending our endoscopy unit requiring procedures adhered to the principals highlighted above.

**Objective** Our perception was that there were aspects of the inpatient consent process that fell short of the principals of best practice and our objective was to highlight these for subsequent focussed work.

**Method** A simple audit tool was devised that sought to capture the data we required but that was quick and intuitive to complete. For this purpose the tool was designed to follow the inpatient pathway from arrival in the department to their transfer to the procedure room (see diagram). Data was captured by the recovery room staff at the time the patient was admitted to the unit. The data were then entered onto an Excel spreadsheet for further interpretation.

**Results** Although our sample was small the audit has highlighted some interesting results. 58% of our sample required consenting in the department, often just minutes from having their procedure. Whilst 60% had received verbal information about the test and the consent process, only 7% of patients had received any written information and only 12.7% had received this information ≥24 hours prior to their test. Bearing this in mind, the average time to obtain consent whilst in recovery was just 5.3 minutes.

**Conclusion** Although guidance is available the consent process for inpatients in our unit clearly falls short of best practice as we suspected and further action will be taken to remedy this situation.

**Learning Objectives** 1) Small audits can have significant influence on the process of practice development and change. 2) Simple, intuitive investigations by frontline staff can empower their contribution to service delivery.

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## **GASTROENTEROLOGY NURSING PRACTICE IN 2006: A DESCRIPTIVE STUDY OF NURSING AND MEDICAL STAFF'S VIEWS OF THE ADVANCED NURSE PRACTITIONER ROLE IN GASTROENTEROLOGY NURSING**

*Sharon M. Hough, St. James's Hospital, Dublin, Ireland. University of Dublin, Trinity College, Dublin, Ireland*

### **Introduction:**

The role of Advanced Nurse Practitioner, Gastroenterology, commonly known as "nurse endoscopist" in the United Kingdom, was being developed in our institution. This role has developed significantly in the United Kingdom and United States of America over the past decades. We had no experience of this role in Ireland.

### **Aim:**

The aim of the study was to determine healthcare professional's perceptions on the parameters of practice acceptable in the role of Advanced Nurse Practitioner Gastroenterology in Ireland.

### **Method:**

A quantitative descriptive approach was adopted in this study. A non-experimental quantitative descriptive survey design utilising a questionnaire was chosen. A non-probability convenience sample of 101 nurses and doctors was drawn from the defined population.

### **Results:**

A total of 78 nurses and 23 doctors took part in the study. The majority of respondents (70.3%) felt they required more information regarding the role of nurse endoscopists in Ireland. The majority of respondents felt it acceptable for nurses to perform upper endoscopy and colonoscopy and administer conscious sedation. 7 doctors and 12 nurses did not think nurses should perform any endoscopy.

### **Summary:**

96% of respondents felt that a nurse endoscopist service would enhance services for patients. Whilst most senior doctors agreed that the nurse should be a psychomotor training resource for those learning the skill of endoscopy the junior doctors did not. Only 48.5% felt the nurse should be an independent practitioner.

### **Conclusions:**

Although respondents reported good understanding of the role a significant majority requested more information suggesting some uncertainty on this point. It would appear that the majority of staff surveyed is supportive of a wide scope of practice. However there is a core of resistance from junior doctors. Independent practice is a core of advanced nursing practice; lack of support may indicate a failing in understanding the role. Change management is a consideration.

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### **Learning Outcomes:**

Views on Advanced Nursing Practice in Gastroenterology in Ireland.  
Identify areas of potential confusion in setting up such a role, thereby addressing them in a timely fashion.

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## **THE IMPACT OF A VALIDATED QUESTIONNAIRE ON THE MANAGEMENT OF PATIENTS WITH DYSPEPSIA**

*Irene Karagianni, Evangelia Toli, Evangelia Dimitraki, Vassilios Koussoulas, Charalambos Barbatzas, Charis Pilichos, Department of Gastroenterology, Sismanoglion General Hospital, Athens, Greece*

**Introduction** Dyspepsia is a leading cause for referral to an expert gastrointestinal (GI) endoscopist in the western world. Recent data reveal that negative upper GI endoscopies were performed to one out of four dyspeptic patients. Aim of the current study was to validate the use of a nursing questionnaire at patients with dyspepsia prior to upper GI endoscopy. The latter apply is an attempt to define the subgroup of patients with dyspepsia that is not indicated for upper GI endoscopy.

**Patients and Methods** 73 patients with dyspepsia that have undergone an upper GI endoscopy were enrolled; patients were asked to fill a validated questionnaire recording the severity and the frequency of symptoms of dyspepsia. Symptoms were categorized to the following subgroups, according to Rome III criteria: a) symptoms attributed to acid secretion, and b) symptoms attributed to gastric motility disorders. Each of the symptoms was measured according to a numeric scale from 0 to 6, separately for severity and frequency. Social habits and known risk factors were recorded according to a numeric scale from 0 to 5.

**Results** Values for pain, burning and satiety were significantly increased at patients with pathological endoscopy compared to those with negative endoscopy ( $p$ : 0.026, 0.031 and 0.037, respectively). The odds ratio for the presence of positive endoscopy in the field of value of five of pain, early satiety and burning was significant (95% CI, 1.08-7.13/1.76-6.56/1.51-7.09,  $p$ =0.014, 0.042 and 0.038, respectively). NSAID intake, smoking and alcohol consumption at patients with negative endoscopy were significantly increased at patients with positive endoscopy compared to those with negative ( $p$ : 0.042, 0.045 and 0.010, respectively).

**Conclusion** Applying a validated questionnaire for nursing use could be an effective alternative for a) reliable evaluation of dyspepsia and b) definition of dyspeptic patients with no priority for upper GI endoscopy.

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-

# THE ROLE OF THE ENDOSCOPY NURSE IN ENDOSCOPIC RESECTION TECHNIQUES (ER-CAP AND MBM) FOR EARLY BARRETT NEOPLASIA.

*Hedwig H.A. Kos RN, W.D. Rosmolen RN, T.G. Pordon RN, J.J.G.H.M. Bergman MD, PhD, Academic Medical Centre, Amsterdam, the Netherlands.*

## Background

Endoscopic resection in expert hands is proved to be a safe and effective technique to treat early neoplasia in Barrett's esophagus.

## Aim:

To explore the technical and practical aspects of endoscopic resections for endoscopy nurses.

## Methods:

- Preparation of materials.

- The procedure: ER-cap

1. marking and lifting: the target area is first marked and lifted with submucosal fluid injection, before or after placement of a transparent ER-cap.
2. snare-placement: after placement of the ER-snare in the ridge of the ER-cap, the target area is aspirated into the ER-cap.
3. resection: subsequently the snare is tightened and the target area is resected.

- The procedure: MBM

1. attach MBM device to the scoop.
2. with or without prior mucosal lifting, the lesion is sucked into the cap and the rubber band is released, creating a pseudopolyp that is subsequently resected.

- Handling the resection specimens:

the amount of stretching that has been applied while pinning down the specimen for pathological examination is performed by nurses with experiences in this field.

## Conclusion:

Endoscopic resection techniques requires expertise for doctors and nurses.

The co-working between doctor and nurse is very important during this therapeutic intervention.

In our department is an EMR training program and aims educating teams of endoscopists, pathologists and endoscopy nurses.

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## IMPACT OF NASAL BRIDALS ON THE ENDOSCOPY SERVICE

*Angela M Abdoolla, Sarah Galliford, Amelia L Jukes, Anne Llewellyn-Edwards, Winnie N Magambo. Nutrition Support Team (NST), University Hospital of Wales, Cardiff, UK*

## Introduction

Percutaneous endoscopic gastrostomy (PEG) and nasojejunal (NJ) feeding tubes are typically placed endoscopically. Approximately 150 patients are referred to the NST annually for PEG placement, 100 of which are placed (2 per week). Nasogastric (NG) tube feeding is common prior to PEG referral or placement. The timing of a PEG placement is dependent upon patient's clinical condition and tolerance of NG feeding. NG and NJ tubes are prone to accidental removal that not only interrupts feeding but also results in unnecessary repeat procedures that are invasive and costly.

## Objective:

To improve the number of feeding days in patients prone to NG and NJ tube displacement and to reduce the need for repeat or follow-on procedures.

## Method:

Patients were referred to the NST if: (a) at least 3 NG tubes had been pulled, fallen or slipped out or (b) an NJ tube had been placed endoscopically. The patients were assessed for suitability by the Nutrition Nurse Specialist (NNS). Insertion of the AMT nasal bridle and subsequent twice weekly monitoring for potential complications were also undertaken by the NNS.

## Results:

The AMT nasal bridle was evaluated over a period of 18 months (May 2005-October 2006) and 102 devices in total were used.

7 bridles were used to secure NJ tubes in 6 patients. These patients received 151 days feeding, average 25 days per patient, range 8-33 days. One patient had two bridles securing an NJ tube after unsuccessful bedside NG, PEG and radiological attempt at gastrostomy placement, until oral intake was resumed after 62 days.

83 bridles were successfully placed and used to secure NG tubes in 71 patients; 61 patients had 1 bridle; 8 patients 2 bridles; and 2 patients 3 bridles. There were 12 insertion failures – 5 were successful on the second attempt; placement not possible in 7 patients. NG fed patients received 1067 days feeding, average 15 days per patient, range 2-63 days. There were minimal complications associated with the bridle, although 25% of patients were still able to displace their feeding tube without displacing the bridle. 36 (48%) of the NG fed patients were referred for PEG placement and 25 (33%) went on to have a PEG placed. 11 patients did not have a PEG placed of whom 4 patients died, 2 were unsuccessful, and 5 were cancelled prior to placement as enteral feeding was no longer required.

## Conclusion:

The AMT nasal bridle fixation device is a safe and effective securing device for feeding tubes. It complements the NST's role in PEG assessment and prioritisation process, reduces naso-enteral feeding tube displacement, helps maintain nutritional intake of patients while waiting for PEG placement and reduces the demand for endoscopic procedures. A clear benefit has been shown to patients in reducing unnecessary PEG placement.

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## NOTES OF AN ENDOSCOPIC ASSISTANT ABOUT N.O.T.E.S. (NATURAL ORIFICE TRANSLUMINAL ENDOSCOPIC SURGERY)

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**Introduction:** In the 21st century a totally new minimally invasive method came up on the base of flexible endoscopy called Natural Orifice Transluminal Endoscopic Surgery (N.O.T.E.S.). The new method raises many questions, which are still waiting for answers. Beside the several reports of transluminal procedures carried out on animal models (e.g. gastro-enteral anastomosis, cholecystectomy, splenectomy, appendectomy, ligation of the fallopian tube, lymphadenectomy), this year came up the first official human report of a transvaginal cholecystectomy. The new way of minimally invasive operations could change the role of the endoscopic assistants. Since the development of this method is particularly fast, assistants have to get ready for the changes.

**Aim and method:** In the experimental laboratory of the 1st Department of Surgery, Semmelweis University, the endoscopic researcher group of the clinic performed transgastric gastro-jejunostomy, appendectomy and ligation of the fallopian tube. The procedures were carried out on a biosynthetic model, which was made by using the gastrointestinal tract of a slaughtered domestic pig. For the experiments only traditional endoscopic instruments of the everyday practice were used. On the grounds of our experiences, the difficulties came up and the knowledge of the literature some special problems were collected.

**Results:** The new method brings up the following new conditions and requirements for the endoscopic assistants:

1. Intraoperative interventions require aseptic conditions, in this way the members of the team, so assistants as well, have to apply surgical wash, wear sterilized clothes and use sterilized instruments. Assistants have to know the rules and habits of the operating theatre, which is different from the everyday endoscopic practice.
2. Probably new, special instruments will disappear for the operations of the different organs (flexible endoscopic staplers, flexible dissectors, forceps, etc.).
3. For the new method likely new accessory instruments (e.g. overtube) will be applied.
4. It could be necessary to use such instruments as well, that already known from laparoscopic operations (e.g. insufflator with pressure controller, flexible electrosurgical tools, etc.).
5. Knowledge of anatomy and topography of intraoperative organs and natural orifices of the penetration (e.g. transvaginal, transrectal interventions) required, too. Assistants have to know not even the diseases appearing in the endoscopic practice, but other gastrointestinal diseases as well.

**Conclusions:** Application of new instruments for transluminal interventions and the knowledge of new anatomical situations and intraabdominal topography will require more preparation from the endoscopic assistants, which means new challenges in the everyday practice.

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## DESCRIPTION OF TWO CASES OF FASCIOLIASIS OVER A ONE-YEAR PERIOD IN A TERTIARY HOSPITAL IN BARCELONA

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### Introduction:

Fascioliasis is a zoonosis which is now widespread throughout the world. The incidence is higher in rural areas with poor hygiene, where contact between humans and infected animals are continuous (1). The disease is caused by trematodes belonging to the genus *Fasciola* (*F. hepatica* and *F. gigantica*) and it infests many kinds of livestock, such as cattle, sheep and goats. The normal route of infection in humans is through ingestion of contaminated water and foodstuffs such as watercress. The disease has three stages in humans: acute or hepatic stage, latent, and chronic or biliary stage. The immature worms migrate through the liver and reach the bile ducts where they mature and lay eggs, which are eliminated through the feces (1,2).

The World Health Organisation considers this disease is of major global public health importance.

In this study we investigated the computerised standard nursing care plans applied to patients with this disease in our centre.

### Objectives:

To determine the number of cases of fascioliasis treated at our centre in 2006.  
To evaluate the nursing care plan implemented.  
To examine nursing recommendations on discharge

### Method:

We performed a retrospective descriptive study of Fascioliasis cases reported in 2006. Nursing records were reviewed from the moment of admission until hospital discharge.

### Results:

A total of two patients with Fascioliasis were admitted to our centre in 2006. Mean age was 51 years (81-21). Both were women.

#### Patient 1.

Three standard nursing care plans were selected and implemented: 1) Jaundice Care Plan, 2) Abdominal Pain Care Plan, and 3) Autonomous Bedridden Patient Care Plan

#### Patient 2.

Four standard nursing care plans were selected and implemented: 1) Colonoscopy, Rectoscopy and Barium Enema Preparation Plan, 2) Autonomous Patient Care Plan, 3) Short-term Internal Medicine Care Plan, 4) Internal Medicine Under-Study Care Plan

**Conclusions:**

Cases of Fascioliasis are rare in our setting. Nursing care plans implemented in both patients were appropriate. However, the care carried out was not always entered on nursing records.

It was determined that a special information sheet should be prepared for nurses to give to patients at discharge.

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**Learning outcomes:**

A disease of animals can be transmitted to humans. The mode of transmission is the faecal-oral route.

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**NURSING SUPPORT DURING ENDOSCOPIC MANAGEMENT OF PATIENTS WITH ACUTE GALLSTONE PANCREATITIS (IN RECESS)**

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**Background:** Acute gallstone pancreatitis is a common disease with considerable morbidity and mortality. Endoscopic Retrograde Cholangiopancreatography (ERCP) is the initial treatment of choice for patient with acute gallstone pancreatitis (in recess).

**Objective:** This study aims to present the experience of the nurse of the endoscopic department from the application of the principles and techniques of the ERCP in the management of patients with acute gallstone pancreatitis in recess.

**Methods:** From 1996 to 2006, 814 patients with extra hepatic gallstone disease were treated. From them 110 (70 women and 40 men) were diagnosed with acute gallstone pancreatitis (in recess) and underwent 116 ERCPs. The mean age was 66 years (ranging from 24-88 years). An elective cholangiography was performed and subsequently the patients underwent ERCP either with the conventional technique (with the double lumen sphincterotome) in 7 of the cases. The procedure comprised of Endoscopic Sphincterotomy (needle knife), duct clearance (in 20 patients) by means of a Dormia Basket or balloon catheter with or without mechanical lithotripsy and biliary drainage with the use of a stent (required in 7 patients). Complications concerning the nursing staff support were recorded.

In 26 of the patients a cholecystectomy had already been performed. 31 were diagnosed with cholelithiasis and 47 with choledocholithiasis. 16 had a history of cholangitis and 26 suffered from obstructive jaundice and 6 were discovered with pancreatic pseudocyst. 3 of them had already undergone ERCP in the past.

**Inclusion criteria:** Age over 18, positive MRCP findings, bile duct diameter >8mm from u/s findings, clinical and laboratory diagnosis of low severity pancreatitis (Ranson's criteria and APACHE II score), ERCP performed between 3 and 28 days from the recess of the symptoms, with the mean time interval being 14 days

**Results:** No major complications or death from the nursing staff's assistance were recorded. A total of 4 minor complications were diagnosed. One case of acute post-ERCP pancreatitis, one case of bleeding, one case of acute cholangitis and one with pulmonary atelectasia.

**Conclusions:** Nursing staff presence in endoscopic procedure proved to be successful, since it contributed to the effective and safe outcome of therapeutic ERCP for the management of acute gallstone pancreatitis (in recess).

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**CHEMOEMBOLIZATION FOR LIVER METASTASES OR HEPATOCELLULAR CARCINOMA**

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**Introduction:**

Chemoembolization consists of injecting chemotherapy drugs into the hepatic artery. This treatment was introduced in our centre in 2001 for liver metastases and hepatocellular carcinoma. In 2003 a computerised nursing care plan for standardised care was implemented.

**Objectives:**

- To evaluate the implementation of the computerised nursing care plan for chemoembolization at our centre.
- To provide nursing recommendations to give to patients at discharge.

**Method:**

We performed a retrospective descriptive study of chemoembolization sessions performed at our centre between November 2003 and December 2006. Nursing computer records were reviewed from the moment of admission until hospital discharge.

**Results:**

Of the 85 patients enrolled for chemoembolization, 34 were women and 51 men; mean age was 71.8 years. We reviewed the nursing care implemented prior to and following chemoembolization. A review of the actions carried out according to computer records shows 100% were confirmed. However, the results regarding nursing comments differed.

Nursing care prior to chemoembolization	Nursing care post-chemoembolization
Information: 100%	Vital sign control: 100%
Venous catheter line: 100%	Pain control: 100%
Serum therapy: 100%	Bed-rest : 51%
Fasting: 100%	Dressing check: 100%
Hair removal with electric clippers 76.8%	Palpation of dorsalis pedis arterial pulse: 100%
	Re-start of habitual diet: 68%

- Computer records show nurses gave recommendations at discharge in 76.8% of cases; in most cases these were cardiac or percutaneous coronary interventions.

#### Conclusions:

- All actions related to chemoembolization nursing care were performed.
- Computer nursing records did not always reflect the work performed.
- There were no specific recommendations at discharge. Cardiac or percutaneous coronary intervention recommendations were given.
- Nursing recommendations to give patients following percutaneous chemoembolization were designed.

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**KEY WORDS:** Chemoembolization, NURSING CARE, RECOMMENDATIONS AT DISCHARGE

## VIDEO CAPSULE ENDOSCOPY IN CHILDREN ASSISTED BY ENDOSCOPY NURSES: FEASIBILITY, SAFETY AND RESULTS

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**Background** Wireless Video Capsule Endoscopy is a non-invasive technique to investigate the small bowel. Most of the experience has been obtained in adults. The indications and the diagnostic yield have been established.

**Aim** To investigate the feasibility, safety, indications and results in children and the role of the endoscopy nurse.

**Patients and methods** A retrospective study of 20 children investigated between February 2005 and March 2007.

**Results** Twenty children, 8 females and 12 males, mean age 10.8 years (range 2-17 years) were investigated because of abdominal pain and raised infectious blood parameters with the suspicion of Crohn's disease or activity of Crohn's disease despite treatment (N=9 patients) and because of gastrointestinal blood loss and anemia (N=10 patients). One child was investigated because of protein-losing enteropathy. The bowel preparation consisted of a clear fluid diet and 2 litres of Macrogol the day before the investigation. In most cases the Macrogol was administered by tube. The child was admitted for 2 days. The endoscopy nurse filled out the personal data in the workstation, made the child feel comfortable and explained the procedure and equipment to the child. The nurse also encouraged the child to swallow the capsule and in case this did not succeed the capsule was introduced under general anaesthesia under endoscopic view with a capsule delivery device. The nurse was successful in letting the child swallow the capsule in 16 cases of whom the youngest was 5 years. Four times a capsule delivery device was necessary (age between 2 and 12 years). With a real time viewer the nurse assessed the passage into the duodenum and the child was allowed to go away. Upon his return the position of the capsule was studied with the real time viewer and in case of non-passage into the colon, the child was instructed to observe the stools for the first 7 days. If necessary, a plain abdominal X-ray was made after 7 days. Capsules were discovered in the colon 16 times. The nurse stored the images into the computer and analysed the passage times and the stored images. Thereafter the results were discussed with the gastroenterologist. The mean gastric passage time was 38 minutes and the small intestinal passage time was 228 minutes. Insufficient bowel preparation precluding adequate analysis was present in 4 patients. Crohn's disease was discovered in 3 patients and excluded in 4 patients. Activity of Crohn's disease was established in one patient despite treatment and excluded in another patient. A patency capsule was needed once because of suspicion of a Crohn's stenosis which passes uneventfully in 27 hours. Anemia or gastrointestinal blood loss was the indication in 10 children and a source was discovered in 5 children.

**Conclusion** Video Capsule Endoscopy is safe and feasible in children with a high diagnostic yield. The important role of the endoscopy nurse is to set the child at ease and to encourage the child to swallow the capsule. The nurse also prepares the equipment, stores the data and analyses the stored images.

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## THE HOLISTIC CARE APPROACH: THE ROLE OF THE CLINICAL NURSE COORDINATOR (CNC) IN THE IBD CENTER

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### Introduction

Presently in Israel, 12,000 people suffer from IBD. As is the case worldwide, the incidence of ulcerative colitis is stable while that of Crohn's Disease has risen over the years. In an attempt to improve the quality of life of these patients and due to the necessity of managing a multi-disciplinary treatment team, the pioneering Center for Care & Health Improvement for IBD Patients at the Hadassah Medical Center was established five years ago. Headed by a Medical Manager and CNC, who play a pivotal role in coordinating treatment and follow-up, the Center treats over 1,000 patient.

### The CNC's Primary Duties

- Creating an individualized treatment plan matching the patient's clinical & mental needs both in the hospital as well as in the community. The CNC is available to patients 24 hours around the clock.
- Promoting health education via an array of training and support programs including for example: informational leaflets; guided cooking and healthy lifestyle workshops; relaxation and stress reduction workshops; alternative medicine; seminars; and individualized and group classes.
- Increasing caregiver knowledge & awareness through multidisciplinary clinical staff meetings; open forums; and professional lectures.
- Active participation in international clinical research

As a result of the CNC's activities, earlier identification and treatment of critical situations is achieved; complications are prevented; and there has been a decrease in the number of patients requiring emergency care.

### Summary

The CNC functions as a Case Manager focusing on the patient & family's quality of life via a holistic care approach which coordinates between all care providers to the patient's benefit.

At the conference, we will present the CNC's operative intervention and assessment model as well as the uniqueness of this Center.

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## DOES PATIENT EDUCATION IMPROVE QUALITY OF LIFE IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE?

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Background: Inflammatory bowel disease (IBD) is a spectrum of disorders that are life-long. Young people are commonly affected. Many patients are operated on during the course of their disease. The need for reliable information to the patients and their kindred is substantial. We report from nine years experience of a patient educational program whence two years were evaluated by Short Health Scale (SHS) that is a validated health related quality of life (HRQOL) questionnaire. Every course had a two-hour lecture weekly for four weeks. Each group consisted of 10-15 participants. Lectures were given by the entire team responsible for the care of IBD-patients, including medical gastroenterologists, colorectal surgeon, IBD-nurses, stoma therapist, social counselor, dietician and dental hygienist. The curriculum covered all aspects of disease including etiopathogenesis, symptoms, medical and surgical treatments, psychosocial aspects, stoma therapy and future aspects including research and new therapeutic options.

### Aim:

To evaluate the impact on HRQOL in IBD-patients subjected to an education program measured by SHS.

### Method:

During a period of two years time (2004-2006) 15 ulcerative colitis (UC) and 18 Cohn's disease (CD) patients, scheduled to participate in the patient educational program, were asked to fill in the SHS-form. Evaluations of 15 UC and 17 CD patients were conducted (one questionnaire was incomplete) before, six weeks and six months following education. Each patient was evaluated by the SHS that is a four-item self-administered disease-specific questionnaire. In the SHS each of the four subjective health dimensions (symptoms, function, disease-related worry and general wellbeing) is covered by a simple item and responses are scored on a 100 mm visual analogue scale.

### Results:

The results are presented as individual scores for each of the four items to form a profile. Results: In the CD group the symptom score was comparable in the three datum points indicating a similar disease activity during the period. The function and general wellbeing scores, however, showed analogous patterns. After six weeks disease-related worry was decreased and at six month a slight improvement was seen. In the UC group the burden of symptoms was similar over time. The disease-related worry and the general wellbeing were also somewhat decreased.

### Conclusion:

In this limited study it was not possible to demonstrate any major effect on the quality of life following an educational program on IBD-patients, measured by SHS, as a whole.

However, some changes among individual items on the SHS scale were observed. The difference in worry seen between patients with CD and UC has to be interpreted with caution. It could reflect the disease activity but also the content of the

courses and their impact on the patients. This outcome may warrant further studies with qualitative methods to explore these findings.

## WEB BASED TREATMENT SOLUTION: DOES LEARNING IN PATIENT EDUCATION CENTER INCREASE ULCERATIVE COLITIS PATIENT'S KNOWLEDGE LEVEL VALIDATED BY CROHN COLITIS KNOWLEDGE SCORE. A DCCD DANISH CROHN COLITIS DATABASE PILOT STUDY

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**INTRODUCTION:** Ulcerative Colitis (UC) is a lifelong disease, which requires frequent out-patient clinic visits and continuously medical treatment. The latest Danish research has shown that incidence of UC in Copenhagen city and county increased to 13.4/100.000 inhabitants per year. Half of the UC patients were less than 38 years old (2-95) at diagnosis. Patient's education has been shown to influence disease course, increase self-adherence and compliance. Additionally to improve patient's Quality of Life (QoL) in chronic diseases such as Asthma, Insulin depended diabetes (IDDM), Inflammatory Bowel Disease (IBD) and Anticoagulation's treatment.

**AIMS & METHODS:** To validate if learning in Patient Educational Center (PEC) increases the level of knowledge in UC patients by Crohn Colitis Knowledge Score (CCKNOW). UC patients participated in 3 hours Educational training (ET) in PEC: • 1 ½ hours disease specific lecture about IBD • 1 ½ hours web specific lecture and practical training in a special developed web based treatment solution in UC on www.constant-care.dk including E-learning • Before and after ET the CCKNOW system was applied to validate PEC education. CCKNOW is a 30 multiple choice questionnaires divided in 4 categories and with a scoring system of 1 point for each correct answer. 300 was the maximum amount of points to achieve. 62.5% correct answers were the goal.

**RESULTS:** Ten patients fulfilling the diagnostic criteria of UC were tested. Correct answers are listed to the 4 specific item groups. The total amount of points achieved before education was 126 which increased significantly to 218 comparable to 72.6%. Fischer exact test was used. \*\* P-value < 0.05 CI 95% unpaired student T-test

TABLE 1:

	General understanding questions)	IBD Medication questions) (16)	(6 Diet (2 questions)	Complications of IBD (6 questions)
Basic knowledge	47.5% (76 points)	31.7% (19 points)	55.0% (11 points)	33.3% (20 points)
After education	81.3% (130 points)**CI(-118-210)	60.0% (96 points)**CI(-57-47)	<sup>(36)</sup> 55.0% (11 points)	68.3% (41 points)**CI(-63-65)

**CONCLUSION:** The levels of knowledge were significantly increased after three hours education in all categories except diet. Therefore we have initiated a validation of the level of knowledge in a larger UC patient group. In the future we aim at intensifying patient's education regarding item "Diet" and "Medication" to obtain at least 62.5% correct answers.

## THE DEVELOPMENT AND IMPLEMENTATION OF AN ELECTRONIC DATABASE SYSTEM TO MONITOR THE QUALITY OF COLONOSCOPY

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### Introduction

The effectiveness of colonoscopy depends on the quality of the performance. This quality of performance can be measured with quality indicators (1). We should distinguish pre-procedural, intra-procedural, and post-procedural quality indicators. Examples are: presence of signed informed consent, allergies, quality of bowel preparation, insertion into the cecum, withdrawal times, discharge criteria and complication rates.

### Aim

To monitor the quality of the colonoscopy in detail in order to improve the performance and quality of patient care.

### Methods

To assess the quality of colonoscopy we first selected a set of quality indicators that we thought were essential. Thereupon we set the minimum standards for each of these indicators. In order to collect and process the information we developed an electronic database in collaboration with Olympus Medical Systems (Endobase). Endobase is the endoscopy software program we already used for reports and scope-tracking since 2001. In the new database the procedure was divided in three parts. In the reassessment module the endoscopy nurse collected the preprocedural information. In the procedure module all procedural information and the technical aspects of the procedure were documented. The recovery module includes the period after the procedure including discharge criteria and patient instructions. Before we started monitoring quality of colonoscopy, people trained with the new system in a three-month period. Results of the training period were not included in the analysis.

### Results

From May 2006 until March 2007 1907 colonoscopies were performed. From 1431 procedures quality data had been collected (75%). The minimum standard for presence of a signed informed consent was set at 95%, in our patients this proved to be present in only 62%.

Bowel preparation was excellent or good in 72%, in 28% the preparation was fair or poor (minimum standard set at 90%). Intubation of the cecum was achieved in 92% of the colonoscopies (standard set at 90%). Of the remaining group, the indication of the procedure was fulfilled in 47%.

### Conclusions

Setting up a quality assurance program for colonoscopy is time-consuming and requires dedication of the nursing and medical staff. At the same time it supplies indispensable information to enable quality-improvement (2). From our first data-collection we have identified a number of issues that requires our urgent attention such as the informed consent and bowel preparation procedures.

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(2)A Call to Action-Measuring the Quality of Colonoscopy, David Lieberman, N ENGL J MED 355;24 December 14, 2006

## REDUCING INAPPROPRIATE SURVEILLANCE COLONOSCOPY: OUR EXPERIENCE IN A DISTRICT GENERAL HOSPITAL, UK

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**Background:** Increasing colorectal cancer surveillance has led to more demand for colonoscopy nationally (1). To help accommodate this, an improvement in the efficiency of endoscopy units is required. One simple way of reducing demand is to adhere to the national guidelines (2) thereby eliminating the number of unnecessary procedures performed.

**Aims and objective:** With this audit we assessed the appropriateness of surveillance colonoscopy requests in our hospital. This should allow us to introduce changes which mean patients are not missed in the cancer surveillance programme as well as saving unnecessary procedures.

**Patients and Methods:** Using our endoscopy unit database we identified 183 patients who underwent surveillance colonoscopies in the six months retrospective audit period. Notes were retrieved in 148 cases. Follow-up arrangements made at the time of the procedure were compared against current British Society of Gastroenterology guidelines by completing a proforma.

**Results:** Our audit revealed that only 41% of colonoscopies were planned appropriately, 29% had unnecessary follow up arranged and 23% of patients received follow-up too early. Adherence to the guidelines would have added 4 over-looked procedures but could have saved 43 unnecessary colonoscopies in the six-month period. This is equivalent to saving 17 colonoscopy lists in a year.

Indica-tions	Appro-priate	Too early	Too late	Un-necessary	No Appointment	Total
Polyps	30	22	2	24	4	82
Inflammatory Bowel Disease	18	4	3	11	0	36
Others*	8	8	6	8	0	30
Total	56	34	11	43	4	148

Others\* Past history/ family history of CRC, HNPCC

**Conclusion/ Learning Objectives:** If colonoscopy requests are simply reviewed to ensure they comply with guidelines, unnecessary colonoscopies would be reduced creating additional capacity within the endoscopy unit. Strict adoption of these guidelines nationally would lead to better use of limited resources, and also reduce exposure of patients to unnecessary risk.

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## GENDER PREFERENCE OF PATIENTS FOR COLONOSCOPISTS IN KOREA

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**Background/Aims:** It has been well known that patients have gender preference in doctors, especially with regard to breast or genital examination. However, the gender preference of patients for physician has not been well investigated in performing the embarrassing and uncomfortable procedures of colonoscopy. Therefore, we assessed patients' preference for gender and age of colonoscopist.

**Patients and Methods:** From July 2006 to October 2006, a total of one hundred and twenty two consecutive patients (48 males and 74 females) scheduled for colonoscopy at Kangdong Sacred Heart Hospital were prospectively enrolled and asked to complete the questionnaires consisting of patient characteristics, preference for gender of colonoscopist, family history of colon cancer, experience of examination, reason for examination, and place of residence.

**Results:** Among female patients, 56% (40/72) expressed a gender preference, and 50% (24/48) of male expressed a gender preference. Among the patients expressing a gender preference, no male patients preferred the opposite gender whereas 20% of female preferred the opposite gender. Aged ( $\geq 50$  years) patients preferred a male colonoscopist ( $P < 0.0001$ ). There was no difference between gender preference group and no gender preference group according to family history of colon cancer, experience of examination, reason for examination, place of residence.

**Conclusions:** About a half of the patients showed gender preference in choosing a colonoscopist. Compared with female patients, male patients showed tendency of same gender preference. By giving patients a chance of choice of endoscopist, the patients' satisfaction with colonoscopy might be maximized.

# PATIENT MANAGEMENT: PRIVACY IN COLORECTAL PROCEDURING

*Lydia Singels, Tanja de Mooij, Department of Gastroenterologie, Academic Medical Centre, Meibergdreef 9, 1100 DD Amsterdam, The Netherlands*

## **Introduction:**

Concerning the management of quality in endoscopic treatment, the privacy of the patient is an important aspect. In 2003 a study was carried out, which clearly demonstrated the impact of privacy on patients satisfaction during invasive diagnostic and therapeutic procedures. We wanted to know if the patients who underwent specific procedures, such as colonoscopy, were also satisfied with the level of privacy before, during and following the procedure. Our nurses staff believes that this can be improved.

## **What do we want to know?**

It is our intention to highlight every stage of a patients stay from admission up until discharge. This includes calling the patient from the waiting room, the pre-assessment intake, undressing in the treatment room and various hospital staff entering and leaving the room during the procedure ( students, doctors and nurses from other hospitals come to see how the procedures are carried out). Recovering and dressing in the recovery room, the discharge talk with the doctor and last but not least the way in which medical information is handled.

## **Method:**

Each patient who underwent a colonoscopy was asked to fill in a questionnaire. Data over privacy in the waiting room, recovery room, during pre-assessment and treatment were collected. Privacy during the final patient-doctor discussion was one of the most important aspects. There were 12 questions each with choice of 5 answers. It was anonymous.

## **Results:**

50 patients were included in our study, 3 questions were excluded because of invalid data.

The most remarkable point were brought forward.

Privacy in the treatment room was in 13% not satisfying for the patient.

Privacy in the recovery room was in 9 % not satisfying for the patient.

40 % of the patients feel their privacy disturbed during the final discussion with the doctor, mainly caused by the influence of the location.

## **Conclusion:**

Our results show that the majority of patients feel the privacy during final talk to the specialist as most important. Unsatisfaction during this time was mainly caused uncomfortable location and disturbing by other third persons. We will focus on improving these circumstances in future and must remain alert so that the level of privacy is assured by every procedure.

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# TROUSERS FOR LOWER INTESTINE PROCEDURE IN GASTROENTEROLOGY UNIT.

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**Background:** Colonoscopy and Sigmoidoscopy are common procedures performed in gastrointestinal endoscopy unit. General patient suite is inappropriate due to wide exposure of patient's body during lower GI procedure. Specific trousers are necessary for patient comfortable and their privacy.

**Method:** The authors designed new model of patient trousers and redesigned in two models following the comment from few patients as a pilot study (Fig. 1, 2). Patient satisfaction was surveyed comparing the preference between these two trousers models. Only patients who were waiting for Colonoscopy and Sigmoidoscopy and voluntary to join the study were enrolled. Endoscopists filled up the satisfaction survey form after procedure. Satisfaction was ranked in 5 point-scale. Five points mean very satisfaction and one point equals dislike. For statistical analysis, outcome was group into two groups. Satisfaction in 4 and 5 point-scale were classified as very appreciation. Ethic Committee of Faculty of Medicine, Prince of Songkla University approved this project.

**Result:** During May 11 to June 13, 2007, 76 patients were enrolled. Seventy patients ( 92%) were very appreciated with Trousers model 1 comparing to twenty four patients (31.6%)who were very appreciated with Trousers model 2.(p<0.05) Endoscopists satisfied with both models.

**Conclusion:** Trousers model 1 will be used routinely as a Patient's Trousers for Lower Intestine procedure in the NKC institute.

**Fig.1 : Trousers model 1;**  
Posterior view and during procedure view (from left to right)



**Fig.2 : Trousers model 2;**  
Posterior view and during procedure view (from left to right)



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## **NR. 24** **PELVIC FLOOR DISORDERS – IN-DEPTH REVIEW OF AN OFTEN OVERLOOKED AILMENT FROM INFANCY TO ADULTHOOD**

*Rachel Shley, Department of Gastroenterology, Sheba Medical Center, Tel-Hashomer, Israel*

Pelvic floor disorders, such as fecal incontinence or constipation carry multiple implications for patient's health and quality of life. The nurse's role is often paramount in obtaining the pertinent patient's history. This history is helpful for defining, for instance, if incontinence is associated with sexual dysfunction or remote child misbehavior. The role of the nurse in this respect is indispensable, as patients are often reluctant or hesitant to report and talk about these problems with their doctors.

In the present talk, we will review diverse pelvic floor pathologies from childhood to adulthood. Different aspects of pelvic floor disorders are discussed, spanning the spectrum of neurogenic, motor, and inflammatory etiologies. An overview of pelvic floor diseases along with their gastroenterological, urological and gynecological manifestations is presented, and their impact on the patients' quality of life is discussed.

### References

1. Patel DA, Xu X, Thomason AD et al. Childbirth and pelvic floor dysfunction: an epidemiologic approach to the assessment of prevention opportunities at delivery. *Am J Obstet Gynecol* 2006; 195:23-8
2. Lukacz ES, Lawrence, Contreras R et al. Parity, mode of delivery and pelvic floor disorders. *Obstet Gynecol* 2006; 107:1253-60

### Learning points for delegates:

1. Pelvic floor disorders span a diverse spectrum of diseases related to various medical sub-specialties
2. Nurses can play an indispensable role in the medical care of patients with pelvic floor dysfunction

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## **AWARENESS AND ADDRESSMENT OF SPECIFIC QUESTIONS IN A PRIVATE SETTING BY SPECIALLY TRAINED NURSERY DETECTS MISDIAGNOSED CASES OF FAECAL INCONTINENCE**

*Inés Ana Ibáñez Zafón, Jordi Muñoz Galitó, Sandra Torra Alsina, Núria Cañete Hidalgo, Felipe Bory Ros, Montserrat Andreu Garcia and Sílvia Delgado-Aros. Digestive Motility and Physiology Unit. University Hospital del Mar. IMAS, Spain*

**BACKGROUND:** Faecal incontinence (FI) is a frequent disorder with a deep impact on quality of life. It is highly frequent in institutionalised and elderly subjects. However, the real prevalence in the general population is probably underestimated due to the social stigma associated to it. Underreporting by affected subjects and lack of awareness by healthcare workers are the factors that might explain the delay and sometimes misdiagnosis of these patients, which prevents application of available treatments and increases health care costs and suffering of these patients.

**AIM:**To

- 1- Assess the prevalence of FI and
- 2- Identify the clinical complain most frequently associated to misdiagnosed FI among non-selected patients referred to the Digestive Motility and Physiology Unit for any testing, using a standard questionnaire filled-in with the help of specially trained nursery.

**METHODS:**

All patients referred to the Digestive Motility and Physiology Unit of our hospital for any digestive physiological testing were asked by a nurse, specially trained in pelvic floor disorders, to fill in a standard and validated questionnaire used to screen for gastrointestinal symptoms (GIQ), in a private setting. This questionnaire includes specific questions on FI. Prevalence of FI was evaluated overall and in relation to the overt main clinical complaint. Proportion estimates are reported.

**RESULTS:**

From 254 patients referred to our Unit between March and November 2006 (129 females and 52 males), 181 patients completed the GIQ. Median age was 60 years (IQR: 44-71, range: 10 to 90) and median BMI 26Kg/m<sup>2</sup> (IQR: 23-28, range: 17 to 40).

From the total, 81/181 (45%) patients were referred for anal physiology testing, 54 (30%) for oesophageal physiology testing and 46 (25%) for H<sub>2</sub> Breath Test. Among those referred for anal physiology testing, 16 (20%) had constipation/outlet obstruction as the overt main clinical complain, 18 (22%) anal or peri-anal pain, 45 (56%) FI and 2 (2%) did not provide such information.

Faecal incontinence, as assessed by the GIQ, was reported by 72/181 (40%) of all patients referred. From these, 31 (43%) had not been detected previously by their physicians.

Not previously known FI was reported by 8/34 (23.5%) patients referred for anal testing for reasons other than FI and also by 11/54 (20%) of those referred for oesophageal physiology testing and 12/46 (26%) of those referred for H<sub>2</sub> Breath Test.

The overt clinical complaint most frequently associated with not previously known FI was diarrhoea, 8/15 (53%) patients referred due to diarrhoea reported FI in the GIQ.

**CONCLUSIONS:**

Faecal incontinence is highly prevalent among patients referred for GI physiology testing, irrespective of the referral cause. A high proportion of those affected might be undetected unless specific questions are addressed in a private and adequate manner. The presence of diarrhoea should make us suspicious of the possibility of the coexistence of FI

## EVALUATION OF INTEGRATED MANAGEMENT FOR HYOGO COLLEGE OF MEDICINE HOSPITAL OUTPATIENT CHEMOTHERAPY UNIT

*Hiromi Fujisawa<sup>1</sup>, Tomoko Omura<sup>1</sup>, Shoko Goda<sup>1</sup>, Ayumi Nogami<sup>2</sup>, Maki Jinna<sup>2</sup>, Yuriko Kishu<sup>2</sup>, Reigetsu Yoshikawa<sup>3</sup>, Yoshinori Fujiwara<sup>3</sup>, Naohiro Tomita<sup>3</sup>*  
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**Background:** We have had a clinical success of 5-FU-based infusion chemotherapy for colorectal cancer patients *via* outpatient clinic since 1989. In addition, setting up of hospital outpatient chemotherapy unit in 2005 urged us to establish the management strategy for our institution over. To reassure safety and comfort in providing cancer chemotherapy on outpatient basis, medical staff formed a team to manage the treatment together. Nurses also provided ongoing education in the prevention and management of treatment-related side effects.

**Patients and methods:** To document and evaluate the services of a clinical pharmacy in the outpatient setting (10 beds, 2 nurses, and 2 chemists), the same treatment chart format was used to design the documentation template. The template was designed to collect diagnoses, supportive care issues, drug-specific interventions, adverse events, and prescriptions written. Data collected from April to September 2006, were retrospectively analysed. We set required time for preparation as the primary endpoint.

**Results:** Nurses and clinical chemists were involved in 15.6 patient visits per day for chemotherapy follow-up or disease management. Average data transcription and safety check-up time were 2.6 and 0.8 min per patient, respectively.

**Conclusion:** Our results showed that collaborative management by nurses and clinical chemists took a few minutes and made it possible no prescription-related trouble reported. It suggested that integrated management was useful to improve the overall environment for cancer chemotherapy patients in order to allow them to feel safe when undergoing such treatments, although the disease management and supportive care issues addressed here may differ based on institution and number of patients.

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## CLEANING AND DISINFECTION OF ENDOSCOPES- BRAZILIAN PROTOCOL

*Suzana Müller, Ane Isabel Linden, Heloisa Helena Karnas Hoefel, Kazuko Uchikawa Graziano*  
Brazilian Society of Gastrointestinal Endoscopy Nursing – (Sociedade Brasileira de Enfermagem em Endoscopia Gastrointestinal- SOBEEG), Health Ministry (MS) and National Sanitary Vigilance Agency (ANVISA), Porto Alegre – BRAZIL

**Introduction:** The evolution of technology makes the nursing staff evaluates constantly its nursing practice. The worsening of some infection diseases makes some questions about the rules of Cleaning and disinfection of endoscopes protocols. The need to maintain a pattern of steps of the process avoiding cross-infection is fundamental for the patient care following the international guidelines beyond its recognizing by Public Health Services and Governmental Organs.

**Objective:** demonstrate the Brazilian guideline of cleaning and disinfection of endoscopes making it accessible to Portuguese and/or Spanish language countries.

**Method:** It is an illustrative guideline with bibliographic fundamentals. It is explained concepts of cleaning and disinfection, steps to be followed for cleaning and disinfection, conditions of storage, care with accessories, transport of the endoscope to other areas, care for maintain the integrity of the equipment, solutions used, security, and evaluation of the process. This was reviewed by Federal Health Laws and included into their protocols. Spread of this guideline through the Society web address, through Federal Health organs and health staff .

**Results:** The wide acceptance of the guideline all through the Country and need of such information was confirmed. This is available in ANVISA web address and the society offer it in press.

**Conclusions:** This practical and uniform guideline was created to achieve all different areas of different States of this big country, becoming this practice as uniform as possible. We had such success because Brazilian endoscopy nurses were organized as a society and were recognized as one.

**References:**

1. Cleaning and disinfection of equipment for gastrointestinal endoscopy. Report of a working party of the British Society of gastroenterology Endoscopy committee. Gut 1998; 42: 585-93.
2. ESGNA Guidelines. Cleaning and disinfection in GI Endoscopy. UPDATE 1999.
3. <http://www.health.qld.gov.au/endoscopesreprocessing>.

**Learning Outcomes:** The need to make a pattern of the process of cleaning and disinfection of endoscopes in a country and that it should have the governmental support.

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## QUALITY COMPARISON OF DISPOSABLE BIOPSY-FORCEPS

*Carlien de Jong, Marjan Kuivenhoven, Leiden University Medical Centre, the Netherlands*

**Introduction:**

In 2006, a study was performed at the LUMC to measure the quality of cleaning and disinfection of reusable biopsy-forceps. The results of this research were clear.

This procedure cannot be carried out adequately because remnants of patient material and other contaminants remained behind on the biopsy-forceps. The use of disposable biopsy-forceps prevents contamination with these contaminants.

**Aim:**

To assess the quality of disposable biopsy-forceps.

**Methods:**

A number of conditions were specified in advance, to be able to perform the comparison in a standardised manner:

1. Comparison of biopsy-forceps without spike to avoid tissue damage.
2. Sufficient brands and types were assessed (10).
3. Each type was assessed by a minimum of four people (2 doctors and 2 nurses).
4. Ten colonic and ten gastric biopsy-forceps of each type were assessed, to minimise the influence of individual variation between patients. 200 biopsy-forceps were assessed.
5. A form was drawn up to rapidly and easily assess the properties of the biopsy-forceps.
6. Those who are directly involved in measuring were not aware of the prices of the various biopsy-forceps.
7. The pathology department received a form on which they assess the quality of the biopsy by means of fixed criteria. After collecting the measurements, the results were assessed. Participating biopsy-forceps manufacturers and employees of our department will be informed about these results. The results will be nationally and internationally published/presented.

**Results:**

71,5 % of the biopsy-forceps were scored as good, 24,4% average, 3,6% poor and 0,5 % very poor by the users (N=193). All biopsy-forceps scored good at the assessment of the biopsies by the pathologist (N=189). One type of colonic biopsy-forceps was excluded from the research after three cases with excessive blood loss. The pathologist received no tissue for research in four cases, for various reasons. The complete appraisal list is available at the poster session.

**Conclusion:**

With all types of biopsy-forceps, included in the final test result, adequate material for tissue diagnosis can be obtained.

**References:**

1. Deprez PH, Horsmans Y, Van Hassel M, et al. Disposable versus reusable biopsy forceps: a prospective cost evaluation. Gastrointest Endosc 2000; 51:262-265.
  2. Dornitz JA. Are disposable biopsy forceps preferable to reusable forceps? Evidence-Based Gastroenterology: Vol.2 February 2001 pp16-17.
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## COMPARATIVE ANALYSIS OF TWO CLEANING EQUIPMENTS USE IN ENDOSCOPES BY MEASURING RESIDUAL SOIL AND USABILITY

*Melvin Ortiz (1), Jayne Tillet (2), University Hospital of Wales, Endoscopy Unit, Cardiff & Vale NHS Trust, Cardiff, UK*

**Aim:**

The general aim of the study is to improve the cleaning technique use in Endoscopy unit by comparing the reduction of contaminants between two cleaning equipments. The study attempted to answer the null hypothesis that there is no significant difference between the sponges and bristles in the reduction of contaminants.

**Method:**

- A. Subject: There are a total of 20 endoscopes used in the study. 10 endoscopes were cleaned with sponges while another 10 was cleaned with bristles.
- B. Apparatus: An ATP portable machine was used to measure the reduction of contaminants in the scope.
- C. Procedure: The study involves swabbing the endoscopes that was used after the procedure. A bristle or a sponge was used to push inside the biopsy channel and then measured it's baseline ATP. These particular endoscopes will be cleaned using either a sponge or a bristle and then measured again. The endoscopes cleaned with either a sponge or a bristle will be reprocessed in the AER and then measured.

D. Useability: Comparison was made, in terms of handling, and capability of each product to pass the smallest channel of endoscopes

**Result:**

The study has shown that the sponges are equally effective in the reduction of contamination in endoscopes. While there is no significant difference between the two cleaning equipments, there is however a difference in the use of the sponges, one of the reasons was the staff is more familiar in using the bristle type. The smallest channel in the study that was cleaned has a diameter of 1.2 mm. The 1mm sponge was used to cleaned the smallest channel of scope using the brush tip technique first because of it's dead end channel. However, the sponges can bend easily inside the smallest channel. A tail-tip technique with the intrusponge will help reduce the problem, but not on a channel which is a dead end. One potential, perhaps alarmingly worrying for the bristle type brushes is that the bristles are attached by coiling or intertwined wires and the wire tip is glued and pressed inside the plastic tube or the body of the brush. These may pose a problem if the wire tip is dislodged from its body or the bristle comes off from its tip. With the intrusponge, however the sponges may shred into tiny pieces and be left inside the channel of the endoscopes, needless to say this is true as well with the bristle type.

**Conclusion:**

It is important to maintain a very high standard of cleaning; both have proven that they are able to reduce contamination. However, endoscopy staff must follow manufacturer's guidelines in cleaning their equipments. Regardless of what equipment to use, routine checks during cleaning of the endoscopes must be done to be sure that no part of the intrusponge or the bristle type brush is left inside a scope.

**References:**

1. Guidelines on cleaning and disinfection of GI Endoscopy The European Society of Gastrointestinal Endoscopy (ESGENA) 1999
2. Decontamination Guidelines British Society of Gastroenterology (BSG) 2006

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## NOTES OF AN ENDOSCOPIC ASSISTANT ABOUT N.O.T.E.S. (NATURAL ORIFICE TRANSLUMINAL ENDOSCOPIC SURGERY)

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**Introduction:** In the 21st century a totally new minimally invasive method came up on the base of flexible endoscopy called Natural Orifice Transluminal Endoscopic Surgery (N.O.T.E.S.). The new method raises many questions, which are still waiting for answers. Beside the several reports of transluminal procedures carried out on animal models (e.g. gastro-enteral anastomosis, cholecystectomy, splenectomy, appendectomy, ligation of the fallopian tube, lymphadenectomy), this year came up the first official human report of a transvaginal cholecystectomy. The new way of minimally invasive operations could change the role of the endoscopic assistants. Since the development of this method is particularly fast, assistants have to get ready for the changes.

**Aim and method:** In the experimental laboratory of the 1st Department of Surgery, Semmelweis University, the endoscopic researcher group of the clinic performed transgastric gastro-jejunoscopy, appendectomy and ligation of the fallopian tube. The procedures were carried out on a biosynthetic model, which was made by using the gastrointestinal tract of a slaughtered domestic pig. For the experiments only traditional endoscopic instruments of the everyday practice were used. On the grounds of our experiences, the difficulties came up and the knowledge of the literature some special problems were collected.

**Results:** The new method brings up the following new conditions and requirements for the endoscopic assistants:

1. Intraperitoneal interventions require aseptic conditions, in this way the members of the team, so assistants as well, have to apply surgical wash, wear sterilized clothes and use sterilized instruments. Assistants have to know the rules and habits of the operating theatre, which is different from the everyday endoscopic practice.
2. Probably new, special instruments will disappear for the operations of the different organs (flexible endoscopic staplers, flexible dissectors, forceps, etc.).
3. For the new method likely new accessory instruments (e.g. overtube) will be applied.
4. It could be necessary to use such instruments as well, that already known from laparoscopic operations (e.g. insufflator with pressure controller, flexible electrosurgical tools, etc.).
5. Knowledge of anatomy and topography of intraperitoneal organs and natural orifices of the penetration (e.g. transvaginal, transrectal interventions) required, too. Assistants have to know not even the diseases appearing in the endoscopic practice, but other gastrointestinal diseases as well.

**Conclusions:** Application of new instruments for transluminal interventions and the knowledge of new anatomical situations and intraabdominal topography will require more preparation from the endoscopic assistants, which means new challenges in the everyday practice.

**References:** P Lukovich, B Kádár, A Jónás, M. S. Akhavi, G Váradi, K Tari, P Kupcsulik. Transgastric gastro-jejunal anastomosis with flexible endoscope on a biosynthetic model.. Orv Hetil. 2007 Jan 28;148(4):161-4.

Kantsevov SV, Jagannath SB, Kalloo AN, at all. Endoscopic gastrojejunostomy with survival in a porcine model. Gastrointest Endosc. 2005 Aug;62(2):287-92.

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## Abstracts of Invited Presentation

FROM ENDOSCOPIC MUCOSAL RESECTION (EMR) TO ENDOSCOPIC SUBMUCOSAL DISSECTION (ESD), FROM ESD TO NATURAL ORIFICE TRANSLUMINAL SURGERY (NOTES): TRAINING ON LIVE TISSUE.

*Dimitri Coumaros, IRCAD/EITS, University Hospital, Strasbourg, France.*

**Introduction:** A primary aim of training programs is to ensure that fellows can perform specific procedures safely. However, the constant development of new techniques generates the need for effective training, even for experts. Different models were developed for training so that potential injuries and discomfort to patients can be avoided.

**Aims:** The aim of this presentation is to demonstrate the utility of the anaesthetised mini-pig model for training in ESD and NOTES.

**Results:** This model is particularly appropriate for the training in ESD since this technique entails the use of new cutting and cautery devices ensuring en-bloc resection of large superficial neoplastic lesions and accurate histologic assessment. ESD tools required are the Triangle Tip-, Flex-, Hook-, Insulated Tip-, Safe- and Flush-knives, the ST Hood and haemostatic forceps Coagrasper, Hot Claw and Hot Bite. The anatomy, the submucosal injection of fluids, the intensities and types of currents used are the same as in humans. Furthermore this model is suitable for endosonography and other procedures (Stretta, Esophy'x, Zenker's myotomy). This model is also appropriate for NOTES development and training. After passage through the gastric wall, exploration of the abdominal cavity is possible. New endoscopes and devices will be used for both diagnostic and therapeutic purposes. NOTES and particularly transgastric surgery can be challenging because of exposure, endoscope stability issues and limitations in control of dissection tools. When performing transgastric cholecystectomy a recurring issue is the upside down view obtained by endoscope retroflexion. In addition, we show other methods such as tele-training, tele-mentoring, the use of pocket computers and podcasting which contribute to learning.

**Discussion:** Other training models are available. Two computer based simulators, the Immersion Medical simulator and the Simbionix GI Mentor simulator, can be used for training in upper and lower gastrointestinal endoscopy, polypectomy, endoscopic retrograde cholangio-pancreatography (ERCP) and endoscopic sphincterotomy. In addition, Simbionics developed a training model of endosonography. Although appealing all these models are expensive and time consuming. Whether the improvement in the learning curve seen in trainees when using such simulators is clinically important and worth the expense and time investment remains unclear. On the contrary, the efficacy of the Erlagen Active Simulator for Interventional Endoscopy (EASIE) using animal organs has already been demonstrated for various haemostatic procedures. Presently this model is used to train for polypectomy, endoscopic mucosal resection, ERCP, stenting and more recently double balloon endoscopy. Unfortunately in this model, cautery settings are not the same as in live animal models.

**Conclusion:** It is essential to match the type of procedure with the appropriate training model for effective teaching according to the level of the operator. Live animal models have a definite advantage allowing a realistic learning experience in advanced endoscopic procedures. The occurrence of bleeding or perforation gives the opportunity to learn how to prevent and manage these complications.

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## **QUALITY ASSURANCE IN SCREENING COLONOSCOPY**

*Roger J Leicester OBE FRCS*

*Director of Endoscopy  
St. George's Hospital National Training Centre  
& SW London Bowel Cancer Screening Centre; UK*

Colorectal cancer accounts for more than 200,000 deaths in Europe each year. As a result, many countries are embarking on screening programmes, some organised nationally and others on a regional basis. Methods vary from occult blood testing regular colonoscopy. Whichever method is chosen, the final pathway in investigation is invariably colonoscopy, for both diagnostic and therapeutic purposes.

It is vitally important for any screening programme to be successful that compliance for screening is as high as possible. It is therefore the responsibility of endoscopy professionals to ensure that colonoscopy is safe, comfortable, dignified and above all accurate. It is also important that units in the screening programme must be able to absorb the extra workload without impacting on providing a diagnostic service or symptomatic patients

In the UK, strict quality criteria are required for both screening endoscopy units and the colonoscopists performing the procedure. Prior to a unit being accredited for screening colonoscopy, data on safety, quality, patient comfort and dignity, decontamination standards, together with details of training for endoscopists and endoscopy assistants must be submitted. This is followed by a formal inspection to verify the standards.

If the endoscopy unit is accredited for screening, then colonoscopists must submit audits of their caecal intubation rates, complications and diagnostic accuracy before sitting an examination on principles of safe colonoscopy and lesion recognition and management. This is followed by a practical assessment of colonoscopy by two independent experts.

Following a successful application by units and endoscopists, quality control is monitored regularly using the same indicators which are recorded for each colonoscopy.

Endoscopy is a relatively young specialty within the history of medicine, because of its invasive nature and wide variation in quality, it is perhaps timely that the introduction of screening, with the necessity to avoid missed lesions and potential serious complications in asymptomatic people, that this is likely to provide the catalyst for quality assurance of all endoscopic procedures.

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## **NATIONAL BOWEL CANCER PROGRAMME IN ENGLAND – EXPERIENCE AND RESULTS**

*Lynn Coleman, Sheffield, UK*

The presentation will describe the background to the NHS Bowel Cancer Screening Programme: the research evidence of FOBt effectiveness; the UK Colorectal Cancer Screening Pilot in England and Scotland; the implementation of the national programme which commenced in July 2006 and the current position of roll out.

It will also include the organisational structure of the NHS Bowel Cancer Screening Programme and describe the roles of the Programme Hubs and the Screening Centres, and their relationships with PCTs and Primary Care in developing the BCSP locally.

Information on the screening pathway will be given, the role of the Specialist Screening Practitioner and a brief summary of the national Bowel Cancer Screening IT system.

An overview of the first year of the NHS Bowel Cancer Screening Programme and initial results will be included

References, per-session and further reading.

NHS Bowel Cancer Screening Programme -Advice to the NHS - July 2005

BCSP Implementation Guide No 1 – Advice for SHAs - July 2005

NHS Bowel Cancer Screening Guide Book – Version 1 July 2006 and Version 2 March 2007

BCSP Implementation Guide No 5 – Education and Training Requirements for Specialist Screening Practitioners – March 2007

All available for the BCSP website for NHS Staff

[www.bcsp.nhs.uk](http://www.bcsp.nhs.uk)

for all cancer screening programmes information

[www.cancerscreening.nhs.uk](http://www.cancerscreening.nhs.uk)

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## TEACHING NEW STAFF AND MEDICAL ASSISTANTS – THE ROLE OF THE ENDOSCOPY TUTOR

*Michael K. Ortmann, Division of Gastroenterology, University Hospital Basel*

Introduction

**With the development and increased use of fiberoptic endoscopy, the need for structured training and education among endoscopy personnel is increased.**

- 1975 The first professional society for endoscopy personnel was founded.
- Since 1980, special professional societies for certified nursing staff (AKP) and nursing assistants (MPA) have become established.
- 1980 - 1990 First courses were held in "continuing professional education in the functional area of endoscopy," including practical courses at external endoscopy departments
- 1998, the "European Endoscopy Nurses Forum (EENF)" was founded by ESGENA (European Society of Gastroenterology and Endoscopy Nurses and Associates).
- Since 2000, there has been a "gastroenterological endoscopy" continuing education module for nursing assistants (MPA) in Germany and Austria.
- Since End of 2007, there has been a "continuing professional education in the functional area of Endoscopy Model" from the ESGENA together with the European Endoscopy Working Group

### **Aims & Methods:**

During the initial period, the new employee will be introduced by the endoscopy tutor to the organization and the basics of the endoscopy unit including the skills and knowledge in the field of gastroenterology/hepatology as well as pneumology.

This program specifically contains theoretical and practical instruction, a "learn and teach" situation, active participation in the respective examinations and subsequent discussion with a mentor.

The basis of the one year skill adaptation and job training is an official checklist of our department, which should serve as a guide to the new employee. This checklist summarizes and controls the theoretical and practical knowledge of the new employee with a special focus on the hands-on skills.

## **Conclusion**

The endoscopical job-training of new employees is an essential phase, which often is not taken seriously in the every-day routine of a tertiary hospital. The main reasons for this are a lack of time during the routine workload, lack of allotted training time and non-existent guidelines and recommendations for the endoscopic education. This is especially unfortunate, since it is the early phase of training which will influence professional behaviour in the endoscopy nurses careers. A training adjusted to the needs of the trainee and which will not overwhelm him is key to a successful intergration into an endoscopy team.

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## **ACCREDITATION FOR TEACHING CENTRES – AN INSTRUMENT OF QUALITY ASSURANCE**

*Di Campbell, August 2007*

Endoscopy services in the UK have faced a number of challenges in recent years, largely due to the unstructured development of the specialty and enormous growth in demand. The resulting variable standards of clinical practice coupled with Department of Health targets to reduce waiting times for diagnostic procedures has lead to an urgent need to improve service delivery, facilities and training of endoscopists.

Recognition of the need for resources to address these issues in preparation for the introduction of the NHS National Bowel Cancer Screening Programme (BCSP) resulted in the formation of the National Endoscopy Team and the commissioning of the National Endoscopy Training Programme. These initiatives have been successful, service and training have improved and Bowel Cancer Screening is established and will roll-out across the country over the next two years.

Effective quality assurance is essential to sustainability of the improvements already made and to the credibility of the BCSP. In this context quality assurance is the agreement, achievement and demonstration of standards. Development of a quality framework has been led by the National Endoscopy Team with support from the BCSP and the Joint Advisory Group (JAG). The training and assessment of endoscopists and the environment in which this takes place has been the concern of the JAG since the late 90's and since 2004 accreditation visits have been part of the JAG plan irrespective of whether units are acting as teaching centres or undertake in house teaching of trainee endoscopists. The JAG peer review accreditation visit has become the accepted tool for quality assuring an endoscopy unit.

This presentation will outline:

- The required standards
- The assessing team
- The visit process
- The resulting report procedures

The overarching aim of this initiative is to ensure that all endoscopic procedures are carried out in a safe environment, are acceptable to the patient and effective as a diagnostic or therapeutic tool.

Although only introduced in 2006 the accreditation process is proving to be beneficial in achieving this aim and in making a major contribution to the improvement in endoscopy services in the UK.

### **Useful websites**

[www.grs.nhs.uk](http://www.grs.nhs.uk)

[www.executive.modern.nhs.uk](http://www.executive.modern.nhs.uk)

[www.cancerscreening.nhs.uk](http://www.cancerscreening.nhs.uk)

[www.thejag.org.uk](http://www.thejag.org.uk)

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## **THE ESGENA CORE CURRICULUM FOR ENDOSCOPY NURSES AND ITS IMPLEMENTATION ON THE NATIONAL LEVEL**

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Since the eighties specialist education courses for endoscopy nursing have been established in many European countries. Specialist education for endoscopy nurses have been established in 20 European countries. Courses vary in length, content, academic level and official recognition.

ESGENA developed a European Core Curriculum for Endoscopy Nurses which will be published at the end of 2007.

### **Structure of Core Curriculum:**

The ESGENA Core Curriculum is based on the ESGENA job profile which describes the tasks and responsibilities of endoscopy nurses (1). It is also based on the European Network of Nursing Organizations (ENNO) framework for post-basic nurse education, which states that specialist nursing education (2):

- Takes place in institutes of higher education (university or equivalent)
- Is continued from year to year
- Is recognized by an appropriate authority
- Has full-time teaching staff or faculty including nurses qualified by education and experience (master's degree, doctorate)
- Involves 720 theoretical hours (classroom and study) per year
- And 50% of its total duration should consist of clinical and/or practice training

The ESGENA Core Curriculum consists of three obligatory modules (3):

- One basic module on the fundamentals of endoscopy nursing, consisting of 2 x 90 hours
- One clinical module on upper and lower gastrointestinal endoscopy, consisting of 2 x 90 hours
- One advanced module including nursing and management considerations, consisting of 2 x 90 hours

Another optional clinical module consisting of 2 x 90 hours can be adapted to each national system.

### **Key persons:**

ESGENA key members are nominated to support the process of implementation in their respective countries. They have been involved in the development of the European Core Curriculum and have contacts to national groups and bodies relevant for endoscopy education. They give advice in the process of establishing a new

course or evaluating already existing courses. The list of ESGENA key members are published on the ESGENA website: [www.esgena.org](http://www.esgena.org)

### **Process of implementation:**

**National** multidisciplinary working groups of experts, educators and representatives of relevant official bodies develop and update national guidelines and the national core curriculum for endoscopy nursing. National guidelines only describe the focal points, duration and structure of the courses.

The **local** implementation group consists of experts from the clinical area, educators and tutors from the respective educational institutes or universities. This group transmits the national guidelines and the national core curriculum into a local course concept. The local group plans, organises, delivers and evaluates the local course. Even though the content and number of hours are fixed by the national curriculum, there is enough flexibility to establish different structured courses in each country.

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1. European Network of Nursing Organisations (ENNO): Framework for post basic nurse education, 11/2000
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3. ESGENA Core Curriculum for Endoscopy Nurses (to be published at the end of 2007) [www.esgena.org](http://www.esgena.org)

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## **INTRODUCTION TO ETHICAL PHILOSOPHY**

*Christiane S. Neumann, Birmingham, UK*

### **Introduction**

Formal guidelines for ethical medical practice were introduced after the 2<sup>nd</sup> World War as a consequence of the Nazi Medical experiments. A person's behaviours should be based on personal and societal ethics (from Greek *Ethos*) and morals (from Latin *Moralis*) – both meaning the same.

### **Deontology versus Utilitarianism**

Different societies or groups within society have two overall ethical approaches: *The deontological approach* values the individual above the good for society and states that no person can be used as a mean to an end. This often represents the ethics of Western societies.

The utilitarian / consequentialist approach values the best for society, achieving the most happiness for the most people, even if this disadvantages individuals. Many Eastern societies are based on this principle.

Neither theoretical approaches are good or bad as each has advantages and disadvantages. And most societies have a mix of both. What is important that these principles apply at all times and to all people.

Problems can arise even within society or institution when different people's practice is based on different philosophies. For example, doctors and nurses are required to do the best for the patient they see at that very moment (Deontology) while hospital

management and the health ministries try to use the available resources for the good of the whole population – giving each an equal share (Utilitarianism), even if this share is small.

#### **4 ethical principles**

Individual ethical practice is based on four principles:

Non-maleficence – meaning = doing no harm

Beneficence – meaning = doing good

Justice – meaning = the same/equal share for everybody

Autonomy – meaning = non-paternalism, allowing patients self determination/decision making

The four principles practiced appropriately should ensure treatment of patients which is based on respect of the individual.

#### **Summary**

There are no ultimate right or wrong approaches in ethics outside those laid out in the general Human & Patient Rights Declarations and the Declaration of Helsinki. Each society has to define its own values. However, once these been established they have to be universally applicable to all people and at all times.

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### **CASE REFLECTION: HOW TO DEAL WITH ETHICAL DILEMMA'S**

*Marijke Smits RN, Gastroenterology, Pediatrics, Flevohospital, Almere, The Netherlands*

During this presentation I would like to offer some tools and guidelines to my fellow endoscopy-nurses, to provide the patient a better quality of care.

By examining a specific case we will see that many different ethical aspects appear. Ethical principles such as whether to act or not, to do no harm, to avoid evil, show respect for autonomy and to deal with the patient in a just and fair manner will be discussed.

During this case study you will be made aware of your competences as a provider of care and to participate in discussions as an advocate of the patient's rights, a role that the patient may not always be able to deal with himself. Patients are not always as independent and outspoken as they are when buying bread at the local baker.

During this presentation there will be an interactive discussion, with the audience and my colleagues, about the real meaning of autonomy, informed consent, rules, personal preferences and actions in a moral dilemma. How could we have avoided this sort of situation? It is ethical to be excellent in your profession.

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### **INTERCULTURAL MODELS IN NURSING FOR DEVELOPING CULTURAL COMPETENCE – EXPERIENCE FROM FRANCE**

*Ellen Hervé Hôpital Foch Suresnes France [ellenrv@lycos.com](mailto:ellenrv@lycos.com)*

#### **Introduction :**

Transcultural nursing is developed worldwide, each country needs to adapt nursing models to suit its specific populations regarding different cultural factors influencing individualised care to patients.

**Aims of this study:**

To analyse a transcultural nursing model and test its' use in the training of nurses and appropriateness of care.

**Aims of the presentation:**

To initiate the participants to some models of transcultural nursing  
To reflect upon our practice of teaching and nursing using these nursing tools

**Summary:**

Over the past 6 years training of nursing students and professionals has been developed regarding the transcultural nursing approach. Models have been used in theoretical and clinical courses. Trainees in France usually express a need of knowledge of different cultures around the world. University courses are available in anthropology and sociology applied to healthcare. What type of training program is most appropriate?

**Results:**

The study shows that expectancies of student nurses and professionals regarding training in transcultural nursing vary according to different factors that will be developed in the presentation. The existing official training programs are more developed in training for psychiatric medical staff, but there still is a need for nurses.

**Conclusion:**

Transcultural nursing in France is now developing. Anthropological and sociological factors must be integrated in the assessment of patients' needs. However carers and patients cannot be summarized to these factors.

**References:**

"Soins et Cultures" by B.Tison and E.Hervé-Desirat  
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"Transcultural Communication in Nursing" by Cora Munoz and Joan Luckmann  
Editor: Thomson Delmar Learning 2005

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**EMOTIONAL EXPERIENCES AND THE INFLUENCE OF BRAIN BIOCHEMISTRY ON THE GASTROINTESTINAL TRACT**

*Mette Karoliussen, Porsgrunn, Norway*

The traditional paradigm of natural science has considered the human body as a physiological entity of separate organs and organ systems. Both in clinical specialities and in medical research, the knowledge is often limited to reductionism. A deeper understanding of the organ system tends to investigate the separate subsystems and ignore the relationship between the different systems. The diseases in the GI system have often been studied in a structural and molecular manner, quite separated from the life experiences and psychological reactions of the person having the disease. But a human being is not composed of separate systems, but is a complex entity of intertwined communicating network of systems, responding to the person's life situation, his reactions and believes.

Recent research in human ecology, psychoneuroimmunology and brain research are presenting a new base for understanding diseases of the GI tract. The research provides new knowledge of how perception, thought and emotions give rise to brain biochemistry that not only affect the persons psyche but has a direct influence on the GI tract on a cellular level.

By combining knowledge from related human research areas, professional personnel can provide better healthcare for patients with GI tract disease. A human ecological approach demonstrates that the person's subjective experience has a significant influence on the regulation of the GI tract's motility and secretion, though the neurological and hormonal control.

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## **ANXIETIES IN PATIENTS UNDERGOING INVESTIGATIONS**

*Gerlinde Weilguny, RN, University of Vienna, Vienna General Hospital, Division of Internal Medicine III, Waehringer Guertel 18-20, A-1090 Vienna, Austria*

Patients undergoing investigations are often concerned, not only about pain and the investigation itself but also about the results and how sickness or treatment will affect their lives. How patients deal with anxieties and problems is sometimes a question of ethnicity, gender, family affair and socioeconomic status. Doctors and nurses underestimate the level of anxiety and procedure acceptance, even if the patient is from the same cultural background as the medical staff. Patients' reaction may be repressive – they resist against information and promote an avoidant behaviour - or vigilant – they claim for more information. Anxiety and distress are accompanied by an increased blood level of norepinephrine and cortisol.

Anxiety is accompanied by somatic symptoms like sweating, tremor, increased muscle tension, paresthesia, tachycardia, hypertension, tachypnoea, diarrhea and other vegetative symptoms. Anxiety level can be assessed by a psychological exploration or by questionnaires. The most commonly used questionnaire is the STAI state and trait anxiety scale. Visual analogue scales (VAS) are used to assess patients' expectations and levels of pre-procedure nervousness.

Previous studies identified patients' concerns related to gastrointestinal endoscopy. In one study 60% of patients reported pre-procedure concerns, such as finding out what might be wrong (18%), pain (12%) and finding cancer (4%). Particularly young patients, women and patients having had no preceding procedures were more anxious about undergoing endoscopy. Others identified nervousness, chronic alcohol or drug abuse as predictors of adverse experiences.

Patients' anxiety might have negative influences on the procedure itself. Because of increased muscle tone and lowered pain threshold the investigation might be more difficult and last longer or the patient might report more pain.

To deal with this issue, patients receive sedation medication, but possible complications should be outweighed against benefits. In fact, complications during gastrointestinal endoscopy may result from intravenous sedation. The medical literature describes a variety of alternative treatments for replacement or reduction of anxiolytic medication, like more detailed information, relaxation techniques, hypnosis or music.

For the trained endoscopy staff it is important to recognize patients' fears and provide proper counteractions. General nursing schools commonly fail to teach such abilities. As this issue also relates to other medical scenarios (such as surgery) compulsory training in general nursing education warranted, at least for special programs such as endoscopy.

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## MANAGEMENT OF AN ENDOSCOPY CENTER

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**Introduction :** The organisation of an endoscopy unit answers to the following requirements:- reception of out an in-patients - quality standard of the care given during the procedure by a well staffed group - planning of an adequate equipment - availability of sedation and anaesthesiology - efficacy of the digital equipment for the communication network. Flow of patients, staff and equipment are highly dependant of the architecture of the rooms, which must be distributed according to their specific function and take in account constraints linked to hygiene and disinfection.

**Objectives :** The endoscopy unit is acting as a provider service, answering to emergency calls for procedures, and to the increased demand of admissions in the “day hospital” required by the socio-economic background. The quest for safety and quality in the management of patients submitted to endoscopy is also an objective.

**Management :** The operation charter provided by the distinct concerned teams describes the distribution of the operating rooms, the respective schedules of activity, numbers and distinct categories of staffs, their role in each workstation. A provisional programming of the procedures and the planning board is established daily; in addition emergency procedures may be added during the day and also at night and during the week end. Management also concerns control of hazard factors and dysfunction with determination of manpower required in fault tolerant function; maintenance of the endoscopes and equipment in each room, quality control of the procedures and prescriptions of hygiene, relationships with other units in the hospital.

**Nurses at workstations:** Each endoscopy room is managed by 2 nurses acting alternatively as instrumentalist (assistance to the operator and processing of the endoscopes after use) and as a circuit agent ensuring reception of the patient, preparation of the room and the required material, traceability and transfer of information. The panel board for the day and the listing of procedures are ensured

by a “programming” nurse in cooperation with the nurse in care of admission in the day-hospital . The opening and closure of the intervention rooms, the end of the disinfection programs, selection of persons on call at night or during the week-end are determined by the nurse planning which displays the distinct schedules at each workstation.

Training of endoscopy nurses: This is under the care of the endoscopy unit according to a pre-determined agenda. The first step is the reception of the new nurse and checking of the pre-requisites by the chief nurse. Then, a tutorial system by the supervisory staff is prolonged for 8 months. Technical work-sessions for practice are organised by the staff. In addition continuing education sessions are held in the hospital (operating theatre, hygiene, control of risks) and by the GIFE (Groupement Infirmier pour la Formation en Endoscopie). A documentation center (techniques and protocols) is available in the endoscopy unit. The staff proceeds to an evaluation of the new nurse at 1, 3 and 6 months and after 1 year, using a qualification referential elaborated in 1998

**Conclusion :** The organisation of an endoscopy unit is based on the hospital policy, and the medical project of the unit observing the strategy of care and the coherence of a multidisciplinary team. Multi-annual balance sheets are established during sessions of the governing board of the endoscopy unit. The incentive and increasing professional skill of the staff depends on the care given to organisation and training; its objective is to promote safety and quality in the management of patients.

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## **THE CHANGING ROLE OF ENDOSCOPY NURSES**

*Ton Mestrom, University Hospital Maastricht, the Netherlands*

Over the last decade we have seen a lot of changes within the field of gastrointestinal endoscopy. From a predominantly diagnostic field endoscopy has evolved into a full grown and broad ranged diagnostic and therapeutic specialism. However, in many countries training and specialisation of nurses still falls short of that of endoscopists. So how do we cope with these changes and organise the necessary training while still maintaining our core business which is care.

The author will present a training structure which is based on equality of all members of the endoscopy team.

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## **INDEPENDENT NURSE CONSULTATIONS IN AN OUTPATIENT CLINIC – WHY AND HOW?**

*Tina Weien Kristensen, Hvidovre University Hospital, Denmark*

In November 2005 the outpatient clinic of medical gastroenterology at Hvidovre Hospital implemented independent nurse consultations.

The reason why was both a wish from the nurses themselves and a request from the board of directors.

There were a number of unanswered questions before this form of consultation could be offered to our patients.

- What is an independent nurse consultation?
- Which services could we offer?
- How could we document our work?

- How could we ensure that patients get the same treatment?
- Who prescribes the nursing consultation?

We choose to define an independent nurse consultation as: “a check up/an examination/a treatment which is prescribed by a physician and is carried out independently by a nurse along more specified guidelines”.

We selected the services we found suitable for the nursing consultations, and together with one of our physicians we formulated guidelines for each check up/examination/treatment. These guidelines would be the tool for the nurses at each visit, and would be a part of the patient’s case record. Also these guidelines would ensure that the patients would be offered the same treatment, no matter who the nurse was, or how experienced she/he was.

Only a physician could prescribe the nurse consultation due to our choice of suitable services,

Two years have now passed and we have learned the following:

- A high level of information is necessary to everybody involved
- On-going education of nurses is important
- Introduction of new procedures takes time
- Independent nurse consultations are here to stay
- This is a process in continuing development

## **ENDOSCOPIC ULTRASONOGRAPHY WITH FINE-NEEDLE ASPIRATION AND DRAINAGE**

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### **DEFINITION OF THE PUNCTURE UNDER ECHOENDOSCOPIE**

The echo-endoscopy is an exploration which combines an echographic approach and an endoscopic approach. It makes it possible to specify the parietal and ganglionic extension gastro-intestinal and pancreatic tumors. It can affirm the malignant or benign character of an adenopathy or a digestive mass perished. The development of the sectoral and linear echoendoscopy allowed cytological obtaining material and or histological of lesions will intra or extra parietal digestive with an endoscopic guidance echo.

### **INDICATIONS**

To define the nature of a mass

To specify the evaluation of a cancer

Masses médiastinales or pancreatic of unspecified nature

Nature of an adenopathy

Extrinsic compressions of the digestive tract

Suspicion of anastomotic repetition under mucous membrane

Nature of a tumor under mucous membrane

A biopsy guided under echo-endoscopy is less aggressive:

That a mediastinoscopy or exploring thoracotomy

That an exploring laparotomy

## **NURSE ROLE AT THE TIME OF THE PUNCTURE UNDER ECHOENDOSCOPIE PREPARATION OF THE PATIENT**

The patient will have to be with jeun strict 6 hours before the beginning of the examination.

Not to smoke if not increase in gastric secretion.

To have had a consultation of anaesthesia before the intervention.

To have seen the doctor who will carry out the examination and informed being of the complications.

To check the totality of its file before the examination (file of anaesthesia, biological assessment...)

## PREPARATION OF THE EQUIPMENT

The echo endoscope, The needle, Cytolite or blades, Small equipment

## NURSE ROLE

The puncture is carried out at the end of the diagnostic examination of echoendoscopy.

The nurse prepares the needle on a clean table of examination.

There are several sizes of different needles, generally of 19 to 25 Gauges.

Positioning of the lesion on the way of exit of the needle by the doctor.

Installation of the needle on the echo-endoscope by the nurse.

The doctor leaves the needle the channel operator then introduced the needle into the tumor (the visualization of "the echo-tip" of the needle makes it possible to check its good positioning in the lesion).

The nurse withdraws the stylet completely and adapts an air space syringe of 20 milliliters.

The doctor carries out movements of comings and goings of the needle in the tumor.

The nurse recovers the whole of the taking away contained inside the needle with the stylet foams for an analysis on blades or by injecting cytolite for a recovery in this one.

The sample will allow cytological and histological examination.

## CONCLUSION

The technique of puncture under echo-endoscopy is a delicate procedure requiring a good drive and a perfect complicity with the operator

Reference:

M.Giovannini, recommandation de la SFED « ponction guidée par écho-endoscopie »

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## LONG TERM EFFICACY OF ENDOSCOPIC TREATMENT OF BILIARY COMPLICATIONS (BC) AFTER ORTHOTOPIC LIVER TRANSPLANTATION (OLT).

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**Background:** BC after OLT are the most frequent complications. They still a cause of morbidity with a high risk of graft failure. Most of transplantation centers use endoscopic retrograde cholangiography (ERCP) for diagnostic and treatment of those complications (Vallera, Liver Transplant Surg 1995).

**Aims:** To evaluate long term efficacy and safety of the endoscopic therapy in the management of BC after OLT. Endoscopic efficacy criteria was non surgical treatment with bilio-digestive anastomosis.

**Patients and Methods:** Two hundred four patients were retrospectively screened for the presence of biliary complications. All of them had a choledochocholedochostomy as end-to-end without T tube. Exclusion criteria was ischemic biliary complications. BC were first detected by MRI in most of cases. ERCP procedures were performed by experienced endoscopists. Maximal number of treatment sessions per patient was 2 to 3 (prothesis insertion and/or balloon dilatation). Follow-up after the last ERCP was one year (range 1-6).

**Results:** ERCP showed biliary complication in 66 patients (43 male, median age 52 years). The liver disease was alcoholic cirrhosis (n=37), chronic hepatitis C (n= 23) and other (n=6). 74% of BC occurred after the first month of OLT. ERCP was successfully performed in 61 patients (92%) and detected 53 anastomotic strictures. A total of 184 procedures was performed, (median per patient=3). The median time interval between the procedures was 3 months. Endoscopic procedure was: combination of balloon dilatation and endoprothesis insertion, or endoprothesis alone or ballon dilatation alone. Technical complication rate (5 of 184, 2.7%) was: mild pancreatitis (4 patients) and minor bleeding after sphinterotomy (one patient). Symptomatic prothesis obstruction occurred in 13 patients during the follow-up. Endoscopic treatment was successful in 45 of 61 patients (73%). There was no difference in survival between patients who did and did not undergo ERCP.

**Conclusion:** ERCP should be the first intention for diagnosis and treatment of BC after OLT. Endoscopic therapy is safe and effective for the majority of BC.

#### **Disclosures:**

The following authors have indicated they have non relationships to disclosure : Sanae Mejdoubi, Faiza Chermak, Jean Louis Payen, Paul Bauret, Claire Bregeon, Nadine Railhac, fabrice Muscari, Bertrand Suc, Nassim Kamar, Lionel Rostaing, Laurent Alric, Jean Pierre Vinel, Georges Philippe Pageaux, Karl Barange.

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#### **CARBON DIOXIDE INSUFFLATION IN GASTROINTESTINAL ENDOSCOPY**

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In any endoscopic procedure, it is mandatory to insufflate gas into the bowel to ensure good visualisation. Currently, air is used for this purpose in the vast majority of centres throughout the world. However, significant amounts of air are usually retained in the GI tract during endoscopy. Therefore, many patients suffer from pain and discomfort during and after the examination (1-4). Carbon dioxide (CO<sub>2</sub>), unlike air, is rapidly absorbed from the bowel. Thus, the use of CO<sub>2</sub> has been shown to

significantly reduce discomfort after colonoscopy, flexible sigmoidoscopy and ERCP in randomized trials (1-4).

The first trials investigating the effect of CO<sub>2</sub> were in colonoscopy. Investigators from both Canada and Norway showed in randomised trials that CO<sub>2</sub> insufflation almost completely reduced post-procedural pain after colonoscopy (1,2,4). More than 50% of patients examined with air had abdominal pain for several hours after colonoscopy, while in patients examined with CO<sub>2</sub>, more than 90% reported no pain at all after the colonoscopy (2). Similar results have also been shown for flexible sigmoidoscopy (3). Recently, it has been shown in a randomised controlled trial on 100 patients, that CO<sub>2</sub> insufflation also reduces significantly post-procedural pain in ERCP (5). At this years' UEGW, data from a randomised study on CO<sub>2</sub> versus air insufflation in double-balloon enteroscopy is presented, showing remarkably improved small bowel intubation depth when using CO<sub>2</sub> compared to air (6)

During endoscopic polypectomy using standard air insufflation, gas explosions have been reported, the latest only some weeks ago (7). The reason for this is that air contains oxygen, which can lead to combustion of gas present in the colon (mainly methane and H<sub>2</sub>). The risk for explosion is obviously very small. However, as most patients suffer from severe damage of the abdominal cavity and many die, this complication is very serious. CO<sub>2</sub> insufflation eliminates the risk of explosion, as CO<sub>2</sub> does not contain any oxygen.

*Conclusions:* CO<sub>2</sub> insufflation significantly reduces discomfort in GI endoscopy, improves small bowel intubation depth during enteroscopy, and prevents gas explosion during polypectomy. CO<sub>2</sub> should be the standard gas used for insufflation in gastrointestinal endoscopy.

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## HDTV, NBI, AUTOFLUORESCENCE: IMPACT AND INDICATIONS

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## **Introduction**

Barrett's esophagus is defined as an endoscopically visible columnar-lined distal esophageal segment with specialized intestinal metaplasia in biopsy specimens taken from this segment. Barrett's esophagus is a recognized pre-malignant condition that predisposes to esophageal adenocarcinoma. In order to improve the detection rate of neoplasia in Barrett's esophagus patients, high resolution endoscopy, autofluorescence endoscopy and narrow band imaging have been investigated and are promising.

## **Autofluorescence Endoscopy**

Excitation of tissues with light of a short wavelength (i.e., ultraviolet or short-wavelength visible light) gives rise to emission of light of a longer wavelength, i.e. autofluorescence.

Two different characteristics are important for *in vivo* autofluorescence imaging endoscopic technique in the gastrointestinal tract: measuring the total autofluorescence and the use of light reflectance to correct for tissue architectural and absorptive properties.

In the autofluorescence imaging (AFI) system produced by Olympus (Tokyo, Japan), total autofluorescence plus specific green and/or red reflectance spectra were included in the image algorithm. The most interesting feature of this technique however is the incorporation of the AFI module in a high-resolution video endoscope with a separate charge-coupled device for AFI. This is an important technological advancement since the white light image is by itself superior to standard video endoscopes. With the AFI mode, normal gastrointestinal epithelium and non-dysplastic Barrett's epithelium appear green while areas with dysplasia/cancer may display a purplish color.

In an uncontrolled feasibility study in 60 Barrett's esophagus patients, we have used the first prototype AFI and have shown that AFI may potentially improve the detection rate of HGIN in Barrett's esophagus. In this study, all patients were examined with the high-resolution white light mode first followed by the AFI mode. Twenty two patients were diagnosed with HGIN; in seven patients HGIN was detected with AFI after high-resolution endoscopy has not shown any suspicious lesions. In 14 patients HGIN was detected with both high-resolution endoscopy and AFI; in three of these patients, additional lesions containing HGIN were detected with AFI only. In the same study, we found that the positive predictive value of AFI-detected lesions to be moderate. Only half of the total number of detected lesions was proven to contain HGIN on histology.

## **Narrow Band Imaging (NBI)**

Traditionally, staining agents such indigo carmine have been used in order to enhance the contrast of the mucosal surface when using magnifying endoscopy. Narrow-band imaging is a novel technique that increases the mucosal contrast without the use of dye spraying and may be useful in Barrett's esophagus. NBI is based on the phenomenon that the depth of light penetration depends on its wavelength; the longer the wavelength the deeper the penetration. Blue light penetrates only superficially, whereas red light penetrates into deeper layers. Evidence has shown that three factors are important in differentiating HGIN from non-dysplastic tissues: 1) *irregular mucosal patterns*, 2) *irregular vascular patterns*, and 3) *the presence of abnormal blood vessels*.

In conclusion, NBI enhances the mucosal and vascular patterns without the need for chromoendoscopy and may be a useful clinical tool for the endoscopic diagnosis of intraepithelial neoplasia based on the detection and classification of the mucosal morphology.

## **Combining HRE, AFI and NBI**

The combination of HRE, AFI and NBI is attractive since these modalities compliment each other if used back-to-back. In this context, HRE and AFI are used to detect

suspicious areas and NBI for close inspection of these areas. It has been shown that combining these techniques reduces the false positive rate from 40% (19/47) to only 2% (1/47) for all grades of neoplasia and to 10% (5/47) for HGIN.

A recent development is the release of a multi-modal system that incorporates high resolution white light imaging, video autofluorescence imaging, narrow band imaging and magnifying endoscopy in one prototype. Therefore, all state-of-the-art advanced endoscopic imaging techniques relevant to the detection of early neoplasia in Barrett's esophagus are currently available in a single endoscope. This technological advancement makes using these techniques in a complimentary fashion practical involving only a touch of a button to switch to any technique at any time during an ongoing procedure.

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## **SINGLE BALLOON ENTEROSCOPY AND OTHER GOOD NEWS FROM OLYMPUS**

*R. Tamm, Olympus Medical Systems Europa (GmbH), Hamburg, Germany*

Although the technique of Double Ballon Enteroscopy (DBE) is still new to many Gastroenterologists and only commercially available since 4 years, the DBE instrument has undergone excessive study assessment and is supposed to be suggested for a lot of exciting applications. These include first of all haemostasis of Mid Gi bleeding, but the portfolio of indications has been extended to general diagnostic of the small intestine, assessment of inflammatory diseases, dilatation of stenosis, placement of stents, polypectomy, EMR etc. etc. The instrument is also in use for PEG or ERCP in patients that have undergone Roux-en-Y bypass surgery and has even been reported to be able to approach the Colon from the ante-grade direction.

In the meantime Olympus has worked on simplifying the approach of balloon enteroscopy to make its usage easier and reduce overall examination time. The new Olympus system consists of a balloon control unit (OBCU) that is supporting a single use, hydrophilic overtube, featuring one integrated balloon. The newly developed SIF-Q180 enteroscope (2m working length, 2,8mm working channel and 9,2mm outer diameter) has no secondary balloon. Therefore the whole system is also referred to as Single Balloon Endoscope (SBE). The scopes "Q-type" CCD is compatible with Videosystems down to EVIS 140 generation and in combination with CV-180 / CLV-180, Narrow Band Imaging (NBI) is available.

When using the new Olympus SBE system, three major simplifications become evident:

1. Time saving preparation:  
No extra time needed to prepare the secondary balloon at the tip of the endoscope
2. Simplified fixation of the scope's distal tip  
Instead of fixing the distal tip of the scope by inflating a secondary balloon the scopes angulations are used for this.
3. Combined push (of scope) and pull (of overtube) is possible  
Shortening the bowel by withdrawing the inflated overtube can be accompanied by continuously inserting the scope into the lumen. This combined manoeuvre is supposed to save examination time.

Besides the new Single Balloon Enteroscope the Olympus “EnteroPro” line-up for the small bowel also includes the capsule endoscope and a range of EndoTherapy instruments. Together with the documentation system ENDOBASE, this will contribute to the improvement of reliability quality and efficiency in the diagnosis and treatment of small bowel conditions.

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## **Abstract of ESGENA Workshops**

### **CAPSULE ENDOSCOPY:**

- **THE ROLE OF CAPSULE ENDOSCOPY IN DIAGNOSING SMALL BOWEL DISEASES (1)**
- **VIDEO READING BY A NURSE (2)**

*Herdes, Erik, VU University medical center, Amsterdam, The Netherlands*

The aim of the first workshop is to provide an overview of the possibilities that a video capsule (VCE) has as a diagnostic tool to aid the gastroenterologist to diagnose possible small intestine diseases.

In the past, there was no endoscopy technique available to visualize the mucosa of the small intestine. With the use of the VCE technique, determination of the mucosal lesions responsible for the clinical presentation is possible. In both adults and children the VCE can be used to make successful diagnosis like obscure gastrointestinal bleeding (OGIB), anemia, iron deficient anemia, Crohn’s disease and colitis ulcerosa (IBD), cancers, severe protein depletion, celiac disease, polyps or tumors, polyposis and Peutz-Jeghers syndrome. Moreover, the precise location of small bowel lesion can be estimated with VCE. This acquired information gives us an opportunity to plan further endoscopic or medicinal treatment. At our site, where double balloon enteroscopy is available, the VCE results can be used in guiding the approach (lower or upper) and planning intervention.

The second workshop aims to provide information about the tasks and the important role of the nurse in video capsule endoscopy. The nurse provides the patient with information about the examination and explains the importance and method of bowel preparation. The VCE investigation is done entirely by the nurse who also instructs the patient with further information.

The nurse downloads the information from the data recorder and does the initial review of the data. He / she makes thumbnails of the found disorders and makes the initial report. The gastroenterologist reviews the findings and the report of the nurse, and is responsible to make the final report and possible diagnosis.

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## **INVESTIGATIONS AFTER A PROBLEM ON A WASHER DISINFECTOR**

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Introduction: In 2002, March 29, a nurse in the endoscopy unit, when opening the door of the automatic disinfector, noticed the absence of

water vapour in the machine. There was no alert sign, no leakage of water and the consumption of detergent and disinfectant agents was normal. A dysfunction of the pump irrigating detergents and disinfectants in the channels of endoscopes was detected by the responsible technician.

**Objective:** Identify those patients who were submitted to a procedure using an endoscope processed with the defective machine; to call them for the search of a possible contamination and a surveillance program.

**Methods:** The automatic disinfector was stopped, a dysfunction report was sent to the medical staff and to the Hospital Hygiene Unit. The control concerned all the patients (n=236) submitted to a procedure using an incompletely disinfected endoscope, since the date March 29. The surveillance program included a questionnaire on symptoms and a search for Hepatitis viruses and AIDS. The surveillance began on the nearest day of March 29 (day 0) and was resumed at monthly intervals up to 6 months. In addition, media information and medical answering service were established for reassurance of the patients.

**Results:** 69 distinct circulation loops were identified for those 236 patients. A circulation loop corresponds to a series of patients who were submitted to an endoscopy with an inadequate procedure of disinfection and were considered as potentially contaminated and contaminant; the loop ends when the endoscope has been completely disinfected. Out of the 236 patients, 207 (87 %) could be controlled at Day 0: no seroconversion to hepatitis viruses or AIDS occurred during the follow up. Out of these 207 patients, 136 were followed up to 4 months, 56 up to 5 months, 15 up to 6 months. Out of the 236 patients 10 could not be contacted and were considered as lost to follow-up. Out of the 236 patients 13 died from a severe disease unrelated to any contamination or complication from endoscopy.

**Conclusion:** The analysis has shown that no patient was infected by the most injurious viruses. This comforting result confirms the importance of a first cleansing step of the endoscope prior to introduction in the automatic disinfector. The cleansing step includes the use of detergents and passing a swab in the channel of the fibroscope. The traceability and the systematic individual control of the sequence “patient, endoscope, machine” allows to identify any failure in the process of disinfection. In the surveillance of patients after an endoscopic procedure the respect of the precautionary principle is essential to ensure a high standard of care for the surveillance of patients. Incidentally, the global cost of the control after an episodic disfunction of the disinfector was high for the hospital.

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## **CLEANING & DISINFECTION OF ENDOSCOPES: WHY STILL BOTHER?**

*Ton Mestrom, University Hospital Maastricht, the Netherlands*

Although it seems things are changing somewhat, most nurses still clean and disinfect their endoscopes, and more important still, feel it's an important part of their job profile.

The author has been responsible for centralising the cleaning and disinfection in two consecutive hospitals and will show the benefits for patientcare and nurses in centralising the process.

The presentation will consist of overall organisation, training of personnel, benefits, drawbacks and possible pitfalls.

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## **HOW TO PERFORM MICROBIOLOGICAL TESTING OF ENDOSCOPES AND AUTOMATED WASHER DESINFECTORS?**

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Microbiological surveillance is an important instrument of quality assurance in gastrointestinal endoscopy whether endoscopic procedures are performed in hospitals, in private clinic or in doctors' offices.

### **The aims of regular microbiological surveillance are (1,2):**

- To control the quality of the whole reprocessing cycle
- To identify and redress mistakes and weaknesses during the reprocessing procedure and
- To prevent the transmission of infectious material and diseases through Endoscopy.

### **Responsibilities**

Microbiological surveillance is the responsibility of the service provider. In order to show evidence of the complete reprocessing cycle, routine microbiological surveillance includes testing of endoscopes, automated washer disinfectors (AWD), water systems (especially the last rinsing water) and filtration systems used in endoscopy units.

### **Frequency**

Routine testing of endoscopes, AWDs and water systems should be performed every 3 months (1). In case of contamination, short-term repeat tests are necessary until the problems have been resolved. In case of clinical suspicion of cross-infection or epidemiological evidence suggestive of transmission of infection related to endoscopy, microbiological tests should be performed immediately.

### **Performance of tests**

1. Microbiological tests of endoscopes must include Swabs from the outer surfaces and liquid samples from all channels and the water bottle system. Each channel is flushed with 20 ml sterile saline. Because of the small lumen, the elevator channel of duodenoscopes is flushed with 5ml sterile saline only. The liquid of each channel is collected in a separate sterile container. A used water bottle is tested at the end of the daily list, by taking liquid samples from the water bottle.
2. Depending on the design of the AWD, the options of collecting samples may vary. A sample of 2x 100ml should be taken from the final rinse water.
3. Water samples should also be taken from tap water (according to national recommendations)

The ESGE-ESGENA Guideline gives detailed recommendations on the culturing of samples (1).

#### 4. Interpretation of results and outbreak management

In case of regular microbiological surveillance, a number of organisms can be used as indicators of weaknesses or mistakes in the reprocessing procedure:

- E. coli, enterococcus as indicator for insufficient cleaning and disinfection, defects of AWDs
- Pseudomonas aeruginosa as indicator for insufficient rinsing, drying and contaminated filter systems
- Staph. aureus and epidermidis as indicator for insufficient staff hygiene, insufficient transport or storage of endoscopes

A quantification of bacterial growth is recommended. A criterion for acceptability is the absence of growth of vegetative bacteria. If clinical or epidemiological data suggests the transmission of infection, the test methods should be focused on the suspicious organism, additionally to the routine test methods. If any contamination is found, it is the responsibility of the service provider to take the suspected piece of equipment out of service (e.g. endoscopes, AWD, etc), until a satisfactory biological test has been performed.

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#### HEMOSTATIC PROCEDURES (CLIPS, SCLEROSIS, BINDINGS)

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##### 1. INJECTION:

ADRENALIN 1/10000: short duration vasoconstrictor (30mn)

INDICATIONS: bleeding Ulcers, post polypectomy and sphinctérectomy, before thermic procedure.

PREPARATION of equipment: Switch with sclerosis of single use. 1ml of adrenalin 1mg more 9ml of physiological salt solution;

Syringe 10ml with end luer-lock.

TECHNIQUE: Location of the zone of bleeding. Introduction of the needle in the operating- channel. Injection of the hemostatic product, with the circumference of the zone, ml per ml. To return the needle in its sheath between each operation and with the shrinking of the endoscope. Obtaining an edema or a bleaching of the mucous membrane testifies of effectiveness of the treatment. Usually associated electro coagulation.

CONCLUSION: Easy realization, low cost.

##### 2. THERMIC PROCEDURE

INDICATIONS: bleeding Ulcers, post polypectomy and sphinctérectomy, after adrenalin injection.

TECHNIQUE: Before procedure test the probe by touching 1 to 2 ml drop of saline water and observe the bubbles. The visual field needs to be washed with repeated irrigations. Then, advance the probe until tangential contact. Press firmly and activate the coagulator generator for 10 seconds.

##### 3. BANDING OF THE ESOPHAGEAL OR HEMORRHOIDAL VARICES

INDICATIONS: Treatment or prevention of rupture of esophageal varices.

MECHANISM OF ACTION: Set rubber bands on the esophageal varices. MATERIAL: SAEED MULTIBAND LIGATOR of Wilson Cook or SUPERVIEW of Boston Scientific  
TECHNIQUE: Routine endoscopic examination is necessary to confirm the diagnosis requiring. System preparation. Reintroduction of the endoscope and visualize the selected varix and aspirate, maintain suction and deploy the band.

CONCLUSION: 2 to 4 explorations can be necessary. Soft food, 6 hours after the gesture in the absence of complication.

4. HEMOCLIP: (Boston Sc, Cook, Olympus).

DESCRIPTION: Catheter of introduction out of Teflon. Stainless steel clip.

INDICATION: endoscopic marking, hemostasis.

TECHNIQUE: Installation clip by opening and pressing the handle completely. After inserting the device into the endoscope, pull the slider gently towards you to open the clips completely and pull it

CONCLUSION: Easy installation, falls between 4 and 10 days.

5. ENDOLOOP:

Allows a control of the subsequent bleeding with the ablation of large polyps pedicles. (Olympus)

DESCRIPTION: Catheter of introduction out of Teflon, sheath interns out of steel, binding out of nylon, handle of order.

INDICATION: Prevention of a hemorrhage during an endoscopic polypectomy.

INSTALLATION OF THE ENDOLOOP: Tighten prudently the lasso using the handle for strangle the foot: the polyp becomes purplish, enlargen the endoloop by pushing back the handle. Resection of the polyp to the diathermy snare above the endoloop. It will fall between 3 and 10 days by ischemia with the residual part of the foot located downstream.

CONCLUSION: Take care of tightening sufficiently without to dividing the polyp. Have a good control of the gesture.

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## HOW TO IMPROVE YOUR COMMUNICATION

### - FEAR OF SPEAKING AND APPEARING IN FRONT OF THE PUBLIC

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The paper shall rest upon the following topics:

1. Origin of fear of appearing and speaking in front of the public
  2. Types of fear of appearing in front of the public
  3. The most frequent signs of fear of speaking and appearing in front of the public
  4. How can we alleviate the fear of appearing in front of the public
  5. Difficulties related to fear and other disinclinations when speaking and appearing in front of the public
  6. Discussion on particular cases
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## **ENDOSCOPIC MUCOSAL RESECTION (EMR) AND ENDOSCOPIC SUBMUCOSAL DISECTION (ESD): MODALITIES AND NURSE´ ROLES**

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EMR and ESD are new endoscopic procedures like mini-invasive surgery aimed to remove early digestive neoplasia with low morbidity without mortality. The aims of EMR are to treat superficial lesion involving mucosae whereas ESD should remove larger neoplasia invading superficial submucosae. In fact, following surgery should be done either in case of immediate complication, ie hemorrhage (3 to 10%) or perforation (1p1000 to 5%) despite some of them should be treated per endoscopic procedures or in case of incomplete resection or deeper invasion suggesting future lymph nodes involvement. Purpose of EMR or ESD is to remove the lesion in one time (or one piece) as it is done according to the carcinologic treatment rules. These techniques are divided in several steps which must be established and well known by both endoscopic physicians and endoscopic nurses. At present EMR are widely performed for oesophageal, gastric or colonic and rectal high grade dysplasia or early cancer. However each site needs precise tools and material of endotherapy which must be currently used by the nurses especially to treat endoscopically adverse effect as hemorrhage or minimal perforation avoiding curative surgery. Most recently, ESD is widespreading among western teams especially in UK, Germany and France. This procedure needs first to be positioned compared to EMR in term of lesion size and depth of invasion the ultimate aim being to remove the lesion in one time excluding as long as possible piecemeal EMR. Secondly, ESD needs to be performed on animal models (training program for referral centers) to perform fluently each step and improve their reproductibility. Finally, in Japanese teams ESD procedures as other interventional endoscopies are performed by two GI physicians assisted by an endoscopic nurse. Effectively, the movement of the endoscope needs actually to be done by a physician because it belongs to the endoscopic treatment, the nurse's roles being to check and give to the physician all different tools of endotherapy step by step and to check the power's level of the electrosurgical unit. Effectively, during ESD and sometimes in EMR, tools and electrosurgical unit setup must be often modified according to the site or size of the lesion and amount of solution injected below the lesion in order to maintain the lifting sign during each step of the ESD procedure. So, after EMR and ESD, during the post-procedure steps, nurses must be more involved in the description and correspondance with the pathologist as it is more important to be certain that the process of the specimen removed will give all the relevant data to choose between conservative and endoscopic follow-up or adjuvant surgery.