



Abstracts of the

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5. Abstracts

5.1. ESGENA-Workshops on 23 October 2010

Workshop 4: Risks in the practice of digestive endoscopy

Biological risks prevention = Biological risks prevention

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The biological risk in the health is, without doubt, the most common occupational hazards to personnel working in this area. Endoscopy units are defined in terms of biological risk as level 2, ie that the germs to which they are exposed have an effective treatment and can cause disease for which effective treatment exists. However, we must take precautions that we have to our efforts to avoid such diseases as possible for two main reasons: to protect our own health and that of our family and to prevent transmission to patients. The handling of samples and body fluids of patients may lead to a potentially serious risk to the health of workers. Are particularly relevant infections caused by human immunodeficiency virus (HIV), with a risk of seroconversion of 0.3% and the Hepatitis B virus (HBV) i C (CHC) and risk respectively 6-30% by HBV, and HCV from 0.6 to 4%.

The types of biological agents include viruses, bacteria, protozoa, yeasts, fungi and parasites.

The routes of entry are the skin, digestive, respiratory and parenteral.

Standard precautions are the key strategy for the prevention of occupational risk and should be applied whenever in contact with: blood, any body fluids, secretions or excretions, mucous membranes, skin integrity and objectivity is not contaminated. They are based on the proper observance of a set of measures refer primarily to washing and hand antisepsis, use of gloves, use of gown, mask, eye protection and the prevention of accidental exposure. It is essential to maintain proper hygienic conditions and proper handling of equipment, clothing, waste, etc. Be applied to all patients regardless of the level of suspicion or confirmation of a possible infection. Other precautions to be applied in addition to the standard are the air and contact. Precautions to prevent airborne transmission are intended to prevent the transmission of pathogens in less than 5 micron particles coming from the airways and suspended in the atmosphere, or may persist and be inhaled, these measures were applied for following diseases: pulmonary tuberculosis, chickenpox, measles.

Precautions to prevent contact transmission are intended to prevent infection or colonization can be transmitted by direct contact or indirect, are applied to patients with MRSA, multiresistant bacteria (*Acinetobacter baumannii*, enterococci, pseudomonas and others. The concrete measures will wear gloves and gown use. There are some vaccinations recommended in health care workers to protect against the biological risk for hepatitis B, varicella, influenza, and others.

Ergonomics

Laura Sicilia Jordá, Barcelona, Spain

Ergonomics is the discipline that relates the person with his environment with the intention to help preventing workplace injuries, but still has to evolve because it is relatively recent the knowledge of the injuries that poor posture maintained throughout working hours can cause.

Workplace Policies:

1. Environmental: noise, vibration, temperature, humidity.
2. Temporary: clockwise, pauses, turns
3. Planning conditions: organization, distribution of work.
4. Protocols: indications for the technique, employee participation.
5. Postures, movements and loads applied during work.

Acute injuries: These injuries are associated to sudden and irremediable loads. It is often the result of a wrong move, as the strength in a forced position. These include: physical fatigue, backache, varicose veins, sciatica, tendonitis, cervoalgias.

Chronic injuries: Injuries related to repetitive movements, also called cumulative microtrauma chronic pathology of repetition. These include: lateral epicondylitis, carpal tunnel syndrome, joint deviations, ruptured tendon, and muscle contractures.

It is required workers information and training: In all cases it is essential that, once the risk assessment and appropriate preventive measures are established, the worker is informed about it and, he or she is trained in methodology and standards of conduct to be followed to avoid major injuries. The workplace must be studied from the ergonomic point of view.

In the workplace, the "stress positions" are defined as those working positions, involving one or more anatomical regions, are switched from a natural position of comfort to forced position that generates hyperextension, hyperflexion, and osteoarticular hiperrotaciones; with the consequent production of overuse injuries.

Awkward postures can cause musculoskeletal disorders in different anatomic regions: neck, shoulders, spine, and upper and lower extremities.

Risk factors: Awkward postures, repetitive motions, improper handling of loads, lighting, temperature, humidity, air velocity, noise. Endoscopy is important to note that musculoskeletal discomfort in awkward postures at work are slow-onset, so it tends to ignore the symptoms until it becomes chronic and permanent damage. hen working, it is essential to know that, in the endoscopy room, the body includes the hips, shoulders and torso. All the movements are based on these areas. To take care of the patients, we have to take care of ourselves first.

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http://actrav.itcilo.org/osh_es/módulos/ergo/ergoa.htm

Workshop 9: Patient Safety

Patient Safety = La seguridad del paciente

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Objetivo: Crear un hospital más seguro

Material y Métodos: Desde el Departament de Salut de la Generalitat se crea "La Alianza para la seguridad de pacientes" que propone para el año 2009 diferentes estrategias para mejorar la seguridad de los pacientes:

1. Gestión seguridad en hospitalización, urgencias, críticos y área quirúrgica.
2. Identificación de pacientes.
3. Prevención de caídas.
4. Cirugía segura.
5. Lavado de manos.
6. Infección en cirugía colon.
7. Bacteriemia zero.
8. Valoración anestésica.

El hospital de la Santa Creu i Sant Pau de Barcelona participa en todos estos proyectos. La metodología para ponerlos en marcha la lidera la Fundación Avedis Donabedian. Se han realizado: 1- Reuniones de consenso donde se deciden los objetivos comunes a los centros e indicadores del cuadro de mando. 2- Formación a los participantes para que ésta se haga extensiva a todos los profesionales. 3- Creación de un Núcleo de Seguridad para seguimiento e implementación de las mejoras. 4- Utilización de metodología para la consecución de los objetivos – previamente consensuados con la dirección-, mediante planes de trabajo y de mejora. 5- Promoción de la notificación de los errores y el análisis mediante un registro de incidencias 6- Auto evaluación de los proyectos y reuniones de seguimiento de los objetivos y comparación con otros centros.

Resultados: En el 2009 se ha conseguido: un cuadro de mando para cada una de las áreas de riesgo; aumentar el número de pacientes correctamente identificados; valorar el riesgo de caídas y aplicar las medidas preventivas; utilizar y evaluar el checklist quirúrgico; realizar 1820 observaciones del lavado de manos; mejorar las valoraciones preanestésicas; disminuir bacteriemia de CVC aplicando medidas Stop-BZ; implantar y evaluar el protocolo de traslado paciente crítico; disponer de un sistema de triage validado; crear una nueva figura que es la enfermera referente de seguridad. Además el hospital ha desarrollado un sistema propio para notificación de incidencias, análisis de errores e implementación de acciones que permiten mejorar la seguridad de los pacientes y trabajadores

Conclusiones: El impulso de la Alianza para la Seguridad de Pacientes ha acelerado los cambios y mejoras. La utilización de planes de trabajo y planes de mejora permite la consecución de objetivos. A partir de la notificación de incidencias, estamos aprendiendo del análisis de los errores.

Patient safety in gastrointestinal surgery = La seguridad del paciente y la cirugía digestiva

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Worldwide, the delivery of health care is challenged by a wide range of safety problems. The traditional medical oath "First do no harm" is rarely violated intentionally by physicians, nurses, or other practitioners, but the fact remains that patients are harmed every day in every country across the globe in the course of receiving health care.

That's why in October 2004 the World Health Organization (WHO) launched the World Alliance for Patient Safety. Its goal is to mobilize global efforts to improve the safety of health-care of patients in all WHO Member States.

Surgical care is an integral part of the health care, performed in every community but associated with a considerable risk of complications (3-16%) and death (0.4-5%), most of them (at least half of them) probably preventable.

Firstly we can reduce patient harm **during surgical procedures**, improving: 1) surgical site infection prevention (antibiotic prophylaxis within the hour before incision, effective sterilisation), 2) safe anaesthesia, 3) and safe surgical teams. The team will operate on the correct patient at the correct site and will avoid inducing an allergic or adverse drug reaction known to be a significant risk to the patient. The team will prevent inadvertent retention of sponges or instruments in surgical wounds and will recognize and prepare for risk of high blood loss.

Regarding **postoperative complications**, the most frequent are affecting 1) respiratory system (as pulmonary embolism thrombosis, air embolism, ventilator-associated pneumonia and laryngeal edema or upper respiratory, 2) circulatory system (from cardiac arrest, myocardial infarct or STENT thrombosis, to deep venous thrombosis), 3) nervous system and infectious complications (surgical site infection, respiratory infections, urinary bladder catheter, vascular catheter related bacteraemia, healthcare associated transmission of hepatitis viruses, etc)

The most common reasons for **drug-related injury** are: error in the method of use or dose, drug used inappropriately and inadequate monitoring of drug levels.

All these errors are costly in terms of money, lives lost, loss of trust in the system by patients and diminished satisfaction by both patients and health professionals.

To err is human, but errors can be prevented. Safety is a critical first step in improving quality of care.

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5.2. ESGENA-Scientific Programme on 24-25 October 2010

SESSION 1: Free Paper Session

L-1

The NHS bowel cancer screening programme in England

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Background: The NHS Bowel Cancer Screening Programme (BCSP) in England was established following successful pilot screening programmes in England and Scotland [2]. The BCSP commenced in 2006 with a three-year phased implementation offering screening to men and women aged 60 to 69. The programme also enabled people aged 70 and over to self-refer into the screening programme.

Objectives

- reduce mortality from bowel cancer by up to 16% [1]
- Offer men and women aged 60-69 a guaiac-based FOBT every two years.
- Enable those over 70 to be screened on request.
- Offer those with an abnormal screening result a colonoscopy as the investigation of choice.
- Refer for treatment if cancer is found at screening colonoscopy.
- Transfer to colonoscopic surveillance within BCSP where intermediate/high risk polyps are found

Method: The programme comprises five regional programme hubs responsible for call and recall, laboratory processing of test kits and booking clinic appointments for participants with abnormal FOBT results. Participants with an abnormal FOBT result are referred to a local screening centre to discuss colonoscopy with a specialist screening practitioner (SSP) within two weeks and offered a screening colonoscopy within a further two weeks. Screening centres must satisfy specific criteria: full JAG accreditation of endoscopy units, Global Rating Scale (GRS) scores of levels A and B and a minimum of two accredited screening colonoscopists. General practitioners are not directly involved in the screening process, but do receive information to support their patients to make an informed choice.

Results: The first screening centres went live in July 2006. All 58 screening centres are now operational across England, and the entire eligible population will have received at least one invitation by December 2011.

Conclusions: Six million invitations have been despatched. Prevalent round data shows an average uptake of 52.9%. Uptake is lower in men than women, increases with age, and falls with increasing levels of deprivation. 2.05% of participants were found to be FOBT positive; 10% of these patients had a confirmed diagnosis of cancer and a further 30% had advanced adenomas and were transferred to colonoscopic surveillance within the screening programme. 61% of cancers found were either staged at Dukes A or B,

with a further 10% of cancers being 'polyp cancers' which were completely excised during colonoscopy. The screening invitation age range is being extended to 75th birthday from 2010 in response to the government's Cancer Reform Strategy. The eligible screening population will increase from approx 5.3 million to approx 8 million men and women in England.

References:

[1] Cancer Research UK. UK Bowel Cancer Statistics. <http://info.cancerresearchuk.org/cancerstats>

[2] Alexander, F. and Weller, D. Evaluation of the UK Colorectal Cancer Screening Pilot. Final Report, February 2003, revised May 2003. Report to The UK CRC Screening Pilot Evaluation Team.

Learning outcomes:

(1) Organisational knowledge of BCSP and (2) Knowledge of SSPs role in screening

L-2

Nurse led clinic in pre-colonoscopy counseling in a colorectal cancer screening program

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Introduction: Compliance to colonoscopy in faecal occult blood test (FOBT) is a limit in colorectal cancer (CRC) screening programs. In Italy compliance to colonoscopy in FOBT positive persons is reported to range between 58%¹ and 88%². In our gastroenterology unit in Rome we have implemented a nurse led clinic for pre colonoscopy counselling.

Aim of the study: To evaluate the main outcomes of colonoscopy with such a policy.

Methods: Thirty eight consecutive persons participating in CRC screening program in our local unit, with FOBT test positive, were contacted by phone in order to have a counselling before colonoscopy. An experienced endoscopy nurse interviewed all persons, in order to register any co-morbidity, with regard to those that could endanger the colonoscopy execution, concomitant drug use, in particular anti coagulant and anti aggregate, and explained the aim, the pros and the cons of colonoscopy. Conscious sedation was offered to all patients. A preparation with 4 liters of isotonic solution of polyethyl glycol is prescribed and discussed.

Results: Of 38 patients, 38 (100%) underwent colonoscopy in the fixed day. This datum is significantly higher than previously reported in Italy ($p < 0.05$). Twenty-six persons decided to undergo colonoscopy with conscious sedation. Coecum was reached in all cases, and the general cleansing of colon was considered to be satisfactory. Twenty-seven polypectomies were performed in 20 patients, with no complication.

Conclusion: Nurse led clinic for pre colonoscopy counselling is feasible and high effective in colorectal cancer screening programs. It facilitates high compliance to colonoscopy and a safe approach to operative procedures.

References

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Learning outcomes: A nurse led clinic devoted to colonoscopy counselling could be performed by endoscopy experienced nurse. This clinic increases the compliance to colonoscopy, and allows safe polypectomies.

L-3

Usefulness of a second endoscopic arm to improve operative endoscopy in the lower gastrointestinal tract

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Background and study aims: Endoscopic submucosal dissection allows “en bloc” removal of large flat and sessile polyps (1). However, it is a long and difficult procedure with several potential complications. The aim of our study was to test the feasibility of utilizing a second endoscopic arm to exert counter-traction during endoscopic submucosal dissection (2).

Patients and methods: Patients with polypoid lesions in the rectum or distal sigmoid were enrolled (Paris classification type 0-Is and type 0-II). An Olympus prototype blind probe, with a 2.8 mm working channel and multibending function, was used as the second endoscopic arm.

The main endoscope served both to perform all the basic operations of dissection and for visualizing the second endoscopic arm in the monitor. The second arm was used to lift the lesions during dissection. Commercially available tools were inserted through the working channels to grab the polyps including grasping forceps, nets and tripods. Three nurses and two endoscopists were involved. One nurse served for conscious sedation and for manipulating the scopes when necessary, one for handling the devices inserted through the main endoscope and one for handling the devices inserted through the second arm. The blind scope was disinfected and reprocessed as for standard endoscopes.

Results: Eleven patients were treated successfully in this study. Both nurses and endoscopists rated the procedure as feasible and it was felt that submucosal exposure was ameliorated allowing easier and faster dissection. The resection was considered curative in all cases due to clear margins. No recurrences have been detected so far (up to 22 months of follow up). No major complications occurred. A small perforation and two delayed bleedings were managed non-surgically.

Conclusions: Applying counter-traction with a blind multi-bending thin scope can facilitate endoscopic submucosal dissection of colorectal lesions. In the future more complex operations than the sole counter-traction could prove feasible with the second arm, provided that dedicated devices and nurses-doctors teams are developed.

Pt	Sex	Age	Location	Size (mm)	Histology	Complications	Time (mins)	F-up (months)
#1	M	55	Rectum	25	HGIN	none	122	22
#2	M	63	Rectum	35	HGIN	none	120	21
#3	F	75	Rectum	55	HGIN	none	115	18
#4	F	66	Sigmoid	55	HGIN	perforation	112	16
#5	F	49	Rectum	60	Tis adenoca.	delayed bleeding	108	15
#6	M	67	Sigmoid	45	Tis adenoca.	none	109	14
#7	F	71	Rectum	35	T1 adenoca.	delayed bleeding	103	12
#8	F	66	Rectum	25	HGIN	none	89	12
#9	F	45	Sigmoid	20	HGIN	none	88	10
#10	M	56	Rectum	25	HGIN	none	90	10
#11	M	60	Rectum	30	HGIN	none	80	9
Mean		61.2		37.3			103.7	14.4

References:

1) Saito Y, Uraoka T, Matsuda T, et al. Endoscopic treatment of large superficial colorectal tumors: a case series of 200 endoscopic submucosal dissections. *Gastrointest Endosc* 2007;66:966-73

2) Fusaroli P, Grillo A, Zanarini S, Caletti G. Usefulness of a second endoscopic arm to improve therapeutic endoscopy in the lower gastrointestinal tract. Preliminary experience-a case series. *Endoscopy* 2009; 41:997-1000.

Learning outcomes: A) countertraction is fundamental for improving submucosal dissection; B) in advanced endoscopic procedures 3 nurses should be involved to form a dedicated team.

L-4

Placement of nasoduodenal feeding tubes in Intensive Care patients by nurses with the assistance of an electromagnetic guidance system (Cortrak™)

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Background: The endoscopic placement of nasoduodenal feeding tubes is one of the factors impeding early enteral feeding at the Intensive care Unit (ICU). In case of gastroduodenal dissociation, intragastric feeding is impossible and endoscopy is needed for deep intraduodenal feeding tube placement. 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 ICU without the help of endoscopy and without the need for 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 on the ICU ward. By means of a universal path finding system (UPS) 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 (Treitz). When this was not successful within the first 30 minutes, 250 mg of Erythromycin was given intravenously, followed by a second attempt 30 minutes. Main outcomes were success rate, procedure time, location of the feeding tube and confirmation of its position by fluoroscopy (only for the intent of the study).

Results: 155 patients were included. Patients required a feeding tube for 24-h feeding because of gastroduodenal dissociation, nursing in prone position, and aspiration pneumonia. At the first attempt the procedure was successful in 96 patients (62%). In 37 patients, the procedure with erythromycin was necessary and resulted in success in another 24 patients with an overall success rate of 77% (120/155). The procedure time differed accordingly: 10.2 minutes for those placed at the first attempt, versus 33.6 minutes for those placed after erythromycin. Nurses did not give up easily: they tried for 30 minutes without and for 40 minutes with Erythromycine before giving up. The feeding tubes were positioned in the ascending part of the duodenum in front of (81), at (26) or past (5) the duodenojejunal ligament. Fluoroscopy confirmed the correct and even more distal positioning in front of (19), at (36) or past (59) the duodenojejunal ligament.

Summary: The positioning of nasoduodenal feeding tubes by nurses without the assistance of endoscopy is feasible and associated with a high success rate in the difficult ICU situation. **Conclusion** The path finding system enables a safe, accurate and deep intraduodenal and intrajejunal positioning of feeding tubes.

References:

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Learning outcomes: Non-endoscopic nasoduodenal feeding tube positioning by nurses is feasible and safe and in a time when endoscopic capacity is under pressure, nurses can take over some of the tasks of gastroenterologists.

L-5

Microbiological analysis of reused autoclavable biopsy forceps (BF) in GI Endoscopy

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Background: The reprocessing of endoscopic devices remains a contentious issue, essentially because of the cost, and economic forces dictate a need to reuse many of them, mainly in developing countries as Brazil. Biopsy Forceps (BF) are considered critical medical devices because they penetrate mucous membranes and demands sterilization process between each use.

Objective: This study aims to evaluate the sterilization process of autoclavable BF after different numbers of use in oesophagus gastroduodenoscopy.

Methods: The protocol was approved by the ethical committee of the hospital and was sponsored by

Boston Scientific Corporation. It is a case control study and was studied 33 new biopsy forceps. These BF were packed from the vendor without previous sterilization. They were divided into 4 groups. **Group 1:** 10 BF suffered sterilization process 10 times (after each use) and suffered no sterilization process before the first use; **Group 2:** 10 BF were processed 05 times (after each use) and suffered no sterilization process before the first use; **Group 3:** 10 BF were processed 5 times (after each use) and suffered sterilization process before the first use and **Group 4 - Control Group:** 3 new ones without use suffered no sterilization process and were analyzed. Manual cleaning process was done after use with brush and enzymatic detergent and then it was processed in ultrasound machine during 10 minutes. After dry, they were packed. Sterilization process was performed by the Sterilization Centre of Hospital de Clínicas de Porto Alegre in steam autoclave at 132°C during 4 minutes. After completing the number of reuse the BF were sent to the HCPA Microbiology and Clinical Analysis Laboratory where they used the United States Pharmacopoeia method of analysis. The BF were cut in 30 cm and immersed in culture tube with TSB. It was maintained in 20-25°C during 14 days.

Results: **Group 1:** In 6 of 10 BF were identified G+ Bacilli (no corineform) or **Coagulase-negative staphylococci** (CoNS) after 48h (2, 3 and 5 days) of incubation. **Group 2:** 5 BF of 10 presented a growth (CoNS) or G+ Bacilli (no corineform) after 72h (3, 4, 5, 7 and 9 days) of incubation. **Group 3:** 1 of 10 presented **Coagulase-negative staphylococci** (CoNS). **Group 4 -Control Group,** was identified G+ Bacilli (no corineform) in 3 BF of 3.

Discussion: 1) The micro organism identified was almost only G+. The almost absence of G- suggests two hypothesis: a) Existed contamination after autoclave process, because if it was the microbial death incapacity the tests should have identified G-. It is associated to dryness difficulty of material and G- are associated to humidity. B) Less probable: G+ Bacilli amount was too many that a cleaning process wrongly done left residues and autoclave was not able to eliminate by convection.

2) Negative results in some tests prove there were conditions of bacterial death with the processes of cleaning and autoclave.

3) The presence of G+ no corineform in control group and growth of them after use and autoclave process arises doubt if they are or not the same micro-organisms. As typification was not done it is doubtful.

4) However, the growth of micro-organism only after 3 days of incubation induces to doubt if contamination happened due difficulties of handling the material. The liquid culture medium is very sensitive. Shouldn't have happened a faster growth? Otherwise majority is skin and body contaminant micro-organisms.

5) Group 3 showed that sterilization process before the first use of BF eliminates almost all bacteria. It means that the reuse of BF is secure, at least these 5 times, concerning to vegetative bacteria. However we cannot declare the same to virus and fungi.

Conclusion: The contamination identified is commonly present at skin. As bacterial growth happened only after 48-72h in some samples processed 10 and 5 times it was associated to the sensitivity of the culture medium for the easy growth of bacterial counts in reduced number. The sterilization process before the first use is indicated and reuse of 5 times is secure.

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Session 2: Management

L-6

Management of patients with multi drugs-resistant organisms (MDRO) in gastro intestinal health care

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MDROs are defined as micro-organisms, mainly bacteria, that are resistant to one or more classes of antimicrobial agents. Although the name of certain MDROs describes the resistance to one agent (e.g., *Meticilin Resistant Staphylococcus aureus* [MRSA], *Vancomycin Resistant Enterococcus* [VRE]), these pathogens are often resistant to several commonly used antimicrobial agents, such as gram-negative bacilli (GNB) producing extended spectrum beta-lactamases (ESBLs). These highly resistant organisms deserve special attention in healthcare centres.

These epidemiologically important pathogens are infectious agents that have one or more of the following characteristics: An easy transmission within healthcare facilities with the consequent emergence of temporal or geographic clusters of more than 2 patients, as is evidenced by many papers in the literature (e.g., VRE, MRSA and *Meticilin Sensitive Staphylococcus aureus* [MSSA], *Clostridium difficile*, norovirus, Respiratory Syncytial Virus [RSV], influenza, rotavirus, *Enterobacter* spp; *Serratia* spp., group A streptococcus).

Increasing experience in these organisms helps us to understand the routes of transmission and effective preventive measures. Although transmission of MDROs is most frequently documented in acute care facilities, all healthcare settings are affected by the emergence and transmission of antimicrobial-resistant micro organisms. The severity and extent of disease caused by these pathogens varies according to the population affected and the institution where they are. Institutions, in turn, vary widely in physical and functional characteristics, ranging from long-term care facilities (LTCF) to specialty units (e.g., intensive care units [ICU], burn units, neonatal ICUs [NICUs]) in tertiary care facilities. Because of this, the approaches to prevention and control of these pathogens need to be tailored to the specific needs of each population and individual institution (1). Regarding the relationship between antimicrobial resistance and patient outcomes, it has been reported an increase mortality, length of hospital stay, and health care costs in *Staphylococcus aureus*, enterococci, and gram-negative bacilli (2).

Basic infection control practices are the key for the prevention and control of MDROs in healthcare settings (3).

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L-7

The role of nurse in optimisation of workflow in endoscopy suite: a "time-and motion" study

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Introduction: An aging patient population, which brings an increased burden of colorectal malignancies, along with the introduction of colon cancer screening programme has escalated the demand for colonoscopies in Croatia. Thus, achieving optimal volume of endoscopic services has become an important focus. Previous studies have identified the room turnover time as an independent predictor of procedure volume, rather than duration of the procedure. Thus, optimisation of a workflow in an endoscopy suite refers to spectrum of activities (nurse- and physician-related) that minimise the duration of the procedure and room turnover time, while maintaining the sufficient quality of the service.

Aim: To examine the extent of scheduling delays in procedures through detailed assessment of room turnover times, the duration of procedures, and the factors responsible for scheduling delays.

Method: A "time and motion" methodology was adopted. The chronology of endoscopic procedures was broken into discrete time events (components): pre-procedure (obtaining informed consent, i.v. access), procedure, post-procedure (data entry), as well as interval between procedures. Delays between procedures longer than 15 min and reasons for them were recorded. Endoscopic procedures were prospectively observed during six consecutive weeks of February-March 2010, and time intervals of the individual components of each procedure were recorded. The study took place in a large teaching hospital, and was conducted by research nurse.

Results: A total of 345 endoscopic procedures were observed done for 327 patients (57% male, 73% inpatient). The most common procedure was EGD (47%), followed by colonoscopy (40%) and flexible sigmoidoscopy (13%). 18% of the procedures were done in conscious sedation. Overall procedures for 89 patients (27%) were delayed (>15 min). The duration of procedures were prolonged for 5% procedures (16/345).

Summary: During study period a total of 27% of endoscopic procedures were delayed. Reasons for delay were physician-related in 58 of cases (65%),

equipment related in 23 (26%), nurse-related 1 (1%), cancellation 2 (2%). More than 2 reasons for delay were observed in 5 cases (6%).

Conclusion: The role of nurse in optimisation of workflow in an endoscopy suite encompass wide spectrum of activities. Proper planning and scheduling of procedures, obtaining prior intravenous access and patients' informed consent, and computerised post-procedure data entry minimise nurse-related reasons for delay between endoscopic procedures

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L-8

Management of the endoscopy unit - Advantages and disadvantages of the computerised system

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Due to political decisions and the regulations of the Inspection of Health, it is increasingly important to register all patient care and endoscope data besides writing a report. ENDOALPHA documentation (Endobase) is a comprehensive computerized system for the endoscopy unit. All reports are automatically linked to diagnose codes (based on ICD-10). Besides this the patient and examination characteristics are stored in the database for statistics.

The endoscope reprocessing information is registered and incorrect procedures are reported, making it nearly impossible to use an inadequately reprocessed endoscope. When required it is always possible to track patients because the endoscopes are always linked to the examination and patient.

As is demanded by quality guidelines, monitoring of heartbeat, blood pressure and oxygen saturation during the stay at the endoscopy unit are continuously performed and stored in the database. In addition the nurse will make a report of the health of the patient during the stay.

To understand the financial costs of an endoscopy all used materials are registered. This information is stored in the database and will be used for statistics. In addition to ENDOALPHA documentation we use ENDOCLICK in our endoscopy unit. Using the ENDOCLICK system it is very easy to retrieve information (like room utilization, material and personnel cost) that can be useful to optimising efficiency in the endoscopy department. All data needed by ENDOCLICK are automatically imported from ENDOALPHA documentation database without an additional workload.

Conclusion: Even though we need to document more data than ever, managing an endoscopy unit using a comprehensive computerized system, such as

ENDOALPHA documentation allows us to do this effectively with minimal additional workload.

Session 3: Free Paper Session

L-9

Critical role of nurses in building a center of endotherapy in Africa: First report on four years cooperation: Dakar, Senegal

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Background: The prevalence of hepatitis B virus infection in Senegal is around 17 % leading to significant morbidity and mortality related to cirrhosis and variceal bleeding over the country. Moreover, benign and malignant diseases of the oesophagus are so frequent, that many people also die of denutrition as a consequence of dysphagia. No endoscopic treatment for those diseases was available before the initiation of the Project.

Aims: To set a collaboration allowing Senegalese doctors and nurses to learn the latest endoscopic treatments of the most prevalent gastroenterological diseases in their country, and to build an efficient endoscopy unit where they are closely working together. To further spread the local experience to the whole country through the creation of the University Certification in Gastroenterology.

Methods: The Project was submitted to the Inter-University organ of the Belgian cooperation (CUD) for a budget of 205.000€ over 4 years. Additional private funding came from the Rotary (60.000€). The originality lied on the prioritization of local teaching in Dakar and the active involvement of endoscopy nurses in each mission. The Senegalese counterpart was the renovation of the Endoscopy unit, its equipment with a video-processor and the organization of the Certificate in Gastroenterology. Missions of 1 week work in Dakar with 1 doctor and 1 nurse from different Belgian universities were organized monthly the first year and bi-monthly thereafter, leading to 30 weeks onsite work over the 4 years. Three Senegalese nurses spent 3 months each, and 2 Senegalese doctor fellows 6 months each in different endoscopy units in Belgium. Videoconferences were organized between Brussels and Dakar on theoretical medical topics with doctors, nurses and fellows.

Results: Local teaching and training begun in July 2005 and was targeted on scopes and devices disinfection, variceal band ligation, oesophageal bougienage and colonoscopy with polypectomy. The renovation of the endoscopy unit took 2 years and led to 2 equipped endoscopy rooms, 1 secretariat, 1 reserve for ancillary devices, 1 waiting room and 1 resting room. About 2300 endoscopies are now performed annually, 10% being therapeutic. Senegalese colleagues are completely autonomous for all basic therapeutic procedures. Major improvements were acquired by Senegalese nurses concerning

patient information before and during exams, close collaboration with doctors during therapeutic endoscopies, knowledge of devices, and cleaning / disinfection of scopes, therefore promoting the central role of the endoscopy nurse in the process. A national society of endoscopy nurses was created. Last year 6 fellows were enrolled in the newly created Certification in Gastroenterology of the University of Dakar and basic repairs of scopes are now available for Pentax and Olympus scopes thanks to efforts of the respective companies.

Conclusions: In a few years a Belgian/Senegalese model of teaching endotherapy in West Africa has been build with the Belgian Cooperation, Universities and private funding. In this Project, half of the local work was done by endoscopy nurses on matters which are not primary priorities of doctors. We are convinced that nurses should always be closely involved with doctors in teaching endoscopy.

Learning outcomes:

1. Africa needs help in terms of endotherapy teaching and training
2. Endoscopy nurses are a cornerstone of the process

L- 10

Degree of knowledge of gastrointestinal endoscopy in other settings: Intervention training

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Introduction: Endoscopic examinations are unpleasant procedures, painful and cause anxiety pending the final outcome. They require prior preparation and aftercare. The nurse responsible for the patient, in the original location, has an important role in the implementation of pre- and post-endoscopic interventions, which depends on her knowledge level of endoscopy.

Objective: The characteristics of endoscopy patients arriving from other hospital areas are variable. This may be related to the professional nursing staff's knowledge of gastrointestinal endoscopy. Therefore, the objectives of this study are to evaluate and promote the knowledge of gastrointestinal endoscopy in other hospital settings.

Material and methods: First phase: we conducted a cross sectional study, based on a self-administered questionnaire to nurses in different areas of our hospital. We collected socio-demographic variables, opinions and knowledge, considering scores above 60% to be an acceptable degree of knowledge. In this stage, the data was processed as simple percentages. Second phase: We designed a training activity in gastrointestinal endoscopy, accredited by the Institutional Training Committee of our hospital for nurses outside the service. We carried out a prospective analytical study based on a questionnaire assessing satisfaction and knowledge before and after the training activity. Frequencies and significance of data were evaluated with the SPSS-15 using the Wilcoxon and McNemar test.

Results: First stage: 176 nurses (83.5% women and 11.4% men) responded to the questionnaire, mean age of 35.7 years (range 21-59 and DE = 9.05) and

12.3 years of mean experience (range 0.5-35 and DE = 8.5). Levels of knowledge: 66.4% of gastroscopy, 82% of colonoscopy and 63.6% of endoscopic retrograde cholangiopancreatography. Opinions: 35% think that assisting an endoscopic technique does not involve complexity, 39% believe the opposite; but 61% considered themselves unable to assist an endoscopic technique. 89% expressed interest in further training on endoscopy. Second stage: 28 nurses attended the introductory endoscopy workshop. Only 36% had prior knowledge of therapeutic techniques; this was increased to 85% in subsequent assessment. Overall there was shown a significant increase in the level of knowledge after the training activity. 53% of participants valued the workshop within a level appropriate to their needs, with a short-term applicability of 60%.

Conclusions: The nurses in our hospital have a high degree of knowledge about endoscopy, but we noted some gaps that could be improved in a substantial percentage of professionals. A third of the sample did not identify with the complexity of our work, possibly due to the ignorance of the duties and / or skills of nurse in endoscopy.

The implementation of this educational activity successfully contributed towards achieving objectives. To increase the level of knowledge of endoscopy, the insertion of training activities is recommended in the continuing education program of hospitals. This study opens a line of investigation for the future reevaluation of the relationship between the variability in patient characteristics and the degree of knowledge of nurses after a training program.

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L-11

Complementary and alternative medicine in patients with Inflammatory Bowel Disease

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Introduction: There is a growing interest of complementary and alternative medicine (CAM) in patients with chronic diseases. A wide range of CAMs are accessible for many conditions, for most patients outside the regular health care system. IBD patients may turn to CAM when conventional therapies are insufficient or associated with adverse side effects, for symptomatic relief or to regain control over their health. Previous studies have shown that the amount of steroid medication is strongly correlated to the use of CAM.

Aims: The objective of this study was to estimate to what extent IBD patients in Sweden use CAM and to detect the most frequently used types of CAM, the reason for use, perceived negative or positive effects

of CAM as well as lifestyle and health related quality of life issues. Side effects from conventional medication were also studied.

Method: Data on 620 patients were collected from eleven IBD units in Sweden. Five different questionnaires were used: A study specific CAM questionnaire, Short Form-36 (SF-36), Sense of Coherence (SOC), Short Health Scale (SHS) and the Rating Form of Inflammatory Bowel Disease Patients Concerns (RFIPC).

Results: Results from the first analysed 504 patients show that 47% of the patients had active disease, 29% had minor symptoms and 23 % had no symptoms at all from their IBD. Altogether 86 % had used any kind of CAM, and 67 % of the patients had used CAM during the past year. The most frequent used CAM was physical exercise (57 %), massage (23%), natural medicine (19%), relaxation (12%), yoga (10%) and counselling (7%). Physical exercise was used in order to achieve general well-being and fitness. Massage was used mainly for back-and neck pain relief but also for general well-being and relaxation. Ninety-one percent of the patients were treated by conventional medicine for their IBD and 42% had experienced side effects from conventional medication. Fifty-seven percent rated their health as good - very good. The most common concern of the IBD patient was fear of having an ostomy bag and losing control over the bowel.

Conclusion: We conclude that the use of CAM in IBD patients in Sweden is higher compared to studies in other countries and that IBD patients experience side effects from conventional medicine.

Learning outcomes: This study adds the following to existing knowledge; what delegates could learn:

- The use of CAM in IBD patients is increasing and CAM is often used as a complement, e.g. as pain relief or to achieve well-being, side effects from conventional medicine are common.
- Information, knowledge and further nursing research in this area is of great importance, with the intention that evidence based CAM may be used as nursing interventions to improve the well-being for our IBD patients.

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L-12

Abdominal symptoms in relation to perceived health in patients with familial adenomatous polyposis

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Introduction: To prevent colorectal cancer in patients with familial adenomatous polyposis (FAP) removal of the colon, (ileorectal anastomosis, IRA) or the colon and rectum (ileal pouch anal anastomosis, IPAA, or ileostomy) are performed [1]. Patients with FAP are normally asymptomatic before surgery but a number of symptoms are reported after surgery [2]. Physical and mental health in patients with FAP after prophylactic surgery has been reported to be in parity with population norms [3]. However, when comparing physical and mental health by performed surgery in patients with FAP, inconclusive results have been found [2]. One important finding in a qualitative study showed that abdominal discomfort and pain, symptoms not previously reported, were important reasons for being concerned about living with FAP and a reason for extensive planning before participating in social activities [4].

Aims: The aim of the study was to investigate presence, frequency and troublesomeness of abdominal symptoms in relation to physical and mental health in adults with familial adenomatous polyposis (FAP) after prophylactic colorectal surgery.

Method: All patients in the Swedish national polyposis registry, age 18-75, diagnosed with FAP who had undergone prophylactic colorectal surgery were invited to participate (N=281). Data was collected using two standardised questionnaires, the Abdominal Symptom Questionnaire (ASQ) and the Short Form Health Survey (SF-36). Demographic and clinical characteristics were obtained from the Swedish polyposis registry.

Results: Two hundred and nine patients (116 women) accepted to participate in the study (i.e. response rate 75 %). All 21 symptoms in the ASQ were reported (mean 6.5 symptoms), with diarrhea as the most commonly reported symptom (67%) followed by borborygmi (62%) and nighttime urge of defecation (60%). Only nineteen patients (9 %) reported having no symptoms at all. Symptoms were rated regarding troublesomeness on a scale ranging from 1-7; mean 3.2 (the higher the number the more troublesome symptom). Women reported a statistically significant higher amount of symptoms compared to men. The only variables statistically significant influencing self-reported physical and mental health, as measured with the SF-36, was number of symptoms and age.

Summary: Patients with FAP suffer from a large range of abdominal symptoms after prophylactic colorectal surgery. The only variables statistically significant influencing self-reported physical and mental health was number of symptoms and age.

Conclusion: Symptom management should be an ongoing process with follow up appointments to specialist nurses with good knowledge about FAP. Identifying those patients who suffer from a high number of symptoms is especially important when caring for patients with FAP, since number of abdominal symptoms have been found to have an impact on patients' physical and mental health.

Learning Outcomes: Patients with FAP suffer from a large range of abdominal symptoms regardless of prophylactic procedure performed, time since surgery and numbers of procedures. Therefore, symptom management should be based on patients' perception of perceived symptom.

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L-13

Liver cirrhosis constitutes an independent risk factor for the development of pressure ulcers in critically ill patients

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Pressure ulcers (PU) are lesions that develop rapidly and have an impact on the quality of life of patients, prolong their hospital stay and increase costs. The prevalence of these ulcers is higher in ICUs but it is unknown in critically ill cirrhotic patients. The usefulness of common risk assessment scales has not been evaluated in this population.

Aims: To establish the prevalence of PU in critically ill cirrhotic patients,

- 1) To assess whether liver cirrhosis "per se" is a risk factor for the development of PU,
- 2) To identify the independent risk factors for the development of PU in cirrhosis
- 3) To evaluate the predictive value of two pressure ulcer risk scores used in ICUs (the Braden and Waterlow scores).

Methods: A prospective cohort of critically ill cirrhotic patients (n=28) admitted consecutively to the ICU (January-May 2009) was compared to a retrospective series of non-cirrhotic patients (n = 56) admitted to the same unit in the same period and matched 1:2 for age, sex, APACHE II and the need for mechanical ventilation. The ICU stay was > 48 hours in all patients and none had ulcers at admission. We excluded liver transplant patients or with morbid obesity.

Results: Age of patients was 58±13 years, 69% were male, APACHE-II at admission was 20 ± 6 and 60% required mechanical ventilation. Mean value of TISS (Therapeutic Intervention Scoring Score) was significantly higher in the group of cirrhotic patients (37±7 vs. 30±9, p <0.0001). A total of 13 patients developed PU (29% of cirrhotic vs. 9% of non-cirrhotic patients, p=0.03). Independent predictors of PU in the multivariate analysis were the presence of cirrhosis (p=0.02), BUN (p=0.01), cholesterol (p=0.01) and prothrombin time (p= 0.0001). Within the cohort of cirrhotic patients BUN (p=0.05) was the only predictor of PU. Ulcer risk calculated by the Braden and Waterlow scales was similar in patients with and without PU (Braden: 11±3 vs.11±2 and Waterlow: 17±6 vs. 16±5). Similar results were observed in the group of patients with cirrhosis. The majority of PU occurring in the cirrhotic group (88%) were located in the heels vs. 40% in the group of patients without cirrhosis (p=0.04).

Conclusions: The prevalence of PU in critically ill cirrhotic patient is significantly higher than that observed in non-cirrhotic patients. Cirrhosis is an independent risk factor for the development of PU in

ICU. Commonly used PU risk scores were not useful in our patients.

References:

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Learning outcomes:

- 1) Cirrhosis is an independent risk factor for the development of PU in the ICU.
- 2) PU are common in cirrhosis and the risk scales commonly used in the general population seem to be less useful in cirrhotic patients.

L-14

Efficiency of liver pre-transplant nursing consultation and degree of patient satisfaction

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Introduction: Patients on the waiting list for liver transplantation need specific health care. For these patients, the Hospital Clinic of Barcelona (HCB) has created a nursing outpatient office in which the nurse consultant, acts as a care manager.

Objective: To know the efficiency of pre-transplant nursing consultation and the degree of patient satisfaction.

Material and methods: Prospective study based on the nurse's activity in the liver pre-transplantation nursing office in 2009. Visits and telephone consultations of the patients in the waiting list were analyzed. We also analyzed the satisfaction surveys completed by patients at two months of being included in the waiting list.

Results: During the study period we performed 796 visits (10 visits / patient): 363 were planned according to protocol and 433 were conducted at the request of the patients.

There were 214 telephone inquiries. 60% were resolved by the nurse consultant. The remainders were derived to: Hepatologist (22%), administration (8%), Primary Care Centre (5%) and emergency room (4%). Main reasons for consultation were: the occurrence of new symptoms, questions about the prescribed medication and diet, and questions about the transplant process.

According to the survey, 81% of the patients felt that contact with the nurse consultant was easy and convenient, and in 89% of the cases the information provided about the transplantation was good or very good.

Conclusions: The above results show a high efficiency of the nursing pre-transplant consultation, providing adequate support to patients in the waiting list, allocating patients to different resources, and improving the quality of care provided.

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Learning Outcomes:

- To know the nurse's role as a care manager in the liver pre-transplantation nursing office in Hospital Clinic
- To compare their own experience with the experience of the nursing outpatient office in Spanish hospital

Session 4: Education**L-15****ESGE-ESGENA- Guideline about Non-anesthesiologist administration of propofol (NAAP) for GI endoscopy.****Guideline from the European Society of Gastrointestinal Endoscopy, European Society of Gastroenterology and Endoscopy Nurses and Associates, and European Society of Anesthesiology**

J.-M. Dumonceau, M.D., on behalf of the NAAP Guideline development Committee. President of the ESGE Guideline Committee, Division of Gastroenterology and Hepatology, Geneva University Hospital, Geneva, Switzerland.

Due to limited anesthesiology resources, propofol is being administered worldwide by trained nurses or endoscopists for endoscopic procedures in selected patients. Numerous studies have shown the efficacy and safety of this sedation regimen in gastrointestinal endoscopy. Nevertheless, this issue remains highly controversial. The aim of the evidence- and consensus-based set of guidelines that will be presented is to provide nonanesthesiologists with a comprehensive framework for propofol sedation during digestive endoscopy. These guidelines have been endorsed by the three Societies listed above.

A short selection of evidence statements and recommendations is presented below:

Compared with traditional sedation, propofol-based sedation presents similar rates of adverse effects, provides higher postprocedure patient satisfaction for most endoscopic procedures, decreases time to sedation, and decreases recovery time.

Non-anesthesiologist administration of propofol (NAAP) performed by endoscopists and endoscopy nurses should not take place without appropriate training, and self-training in NAAP is strongly discouraged.

In the presence of patient-related risk factors for complications, the primary involvement of an anesthesiologist during endoscopy is suggested. These factors include ASA category ≥ 3 , a Mallampati's class of 3 or other conditions at risk for airway obstruction (e.g. pharyngolaryngeal tumors), patients who chronically receive significant amounts of pain medications or in cases of anticipated long-lasting procedure.

Continuous supplemental oxygen is indicated during NAAP for endoscopy. Intermittent bolus administration of propofol is the current standard administration technique for NAAP. Combining propofol with an additional drug (benzodiazepine/opioid/ketamine) allows the dose of propofol administered to be decreased without reproducible effect on recovery time; there is no clear evidence that combining propofol with another drug leads to a decrease in adverse effects.

Patient monitoring is recommended in all patients using continuous pulse oximetry and automated noninvasive blood pressure measurement (at baseline and then at 3–5-minute intervals) during both NAAP and the recovery period; continuous electrocardiography is recommended in selected patients with a history of cardiac and/or pulmonary disease.

A small minority of sedation-related adverse effects occur after, as opposed to during, the procedure. We recommend patient observation until discharge by a person who is aware of the adverse effects of the drugs administered. Minimum discharge criteria are useful for discharging patients after sedation for digestive endoscopy. We recommend using a standardized discharge scoring form. Documentation should be maintained throughout all phases of patient management.

References:

Full guidelines are available at <http://www.esge.com/esge-guidelines.html> and will be published in the December issue of Endoscopy.

L-16**Development of a national training programme for NAPS.**

NAPS was introduced at Gentofte University Hospital in 2007 in collaboration with department of anesthesiology. A steering group consisting of head of endoscopy, Professor Peter Vilmann, two endoscopy nurses, an anesthesiologist and an anesthesiology nurse, was in charge of the implementation. A nurse from the steering group was appointed as the anchor of the project. The project nurse was, in collaboration with the steering group, in charge of developing and describing a structured training program both for endoscopists as well as endoscopy nurses performing the Propofol sedation. The project nurse provided the bedside training of endoscopy nurses. The training program for nurses is a 6 week course including theoretical and practical training whereas the training program for endoscopists consisted of 2.5 Hours of theory and a short course of practical airway management. The 6 weeks course is consisting of a theoretical and practical part including training in airway management. During the first two weeks the nurse gives Propofol sedation supervised by a mentor. In addition, one day of theory as well as one day of practical training in airway management is provided together with an anaesthesia nurse. During the last 4 weeks NAPS is managed with increasing independency by the nurse trainee, still in close collaboration with a mentor. The course concludes with a simulation training day, and a final written examination (Multiple choice).

During the implementation of NAPS 10 nurses have been trained from our own endoscopy unit. At present structured NAPS-courses are offered to other endoscopic units in Denmark. We have at present held four courses with external participants from other hospitals. A committee for development of guidelines for propofol sedation by non-anesthesiologist in the capital region of Copenhagen has been appointed. This committee is established between the national societies of anesthesiology, gastroenterology and surgery as well as the local medical advisory board of

Copenhagen. The aim is to introduce NAPS in the Capital region of Copenhagen, and Gentofte hospital has been appointed a central role in this process headed by Professor Vilmann and the project nurse. There is a growing interest in NAPS-sedation for endoscopy through-out the country, and we believe that these regional guidelines will be fundamental for the development of Danish national NAPS guidelines.

L-17

Effect of national training programme on daily practise

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Introduction: For over 10 years, apart from the standard medication with Benzodiazepines often in combination with an opioid, short-acting hypnotic Propofol is increasingly being used in Germany. The German S3-guideline „Sedation in gastrointestinal endoscopy“ give precise recommendations regarding structure and process quality for safe sedation, the qualifications for medical and nursing staff (1). Based on the guideline and legal opinions, endoscopists in Germany can perform propofol sedation during GE endoscopy if the physician is trained in intensive care and experienced in the use of iv sedatives. Moreover qualified nurses can also take an active part in sedation during low risk endoscopic examinations. The sedation has to be induced by a qualified physician and then be monitored by a qualified nurse, under the supervision of the endoscopist. The S-3-Guideline underlines the necessity of structured and periodical training.

Course concept: Based on this guideline, the German Society of Endoscopy Nurses (DEGEA) developed a national core curriculum for the training in sedation and emergency management for nurses (2). The course consists of 16 hours theory and 8 hours practice. Course books cover the theoretical part which includes pharmacology, pharmacokinetics, structural and personnel requirements, pre-, intra- and post-endoscopy management, complication management and legal aspects. Knowledge is assessed by written examination. The practical training on human patient simulators includes basic and advanced cardiac life support, training on different sedation scenarios and management of adverse events. An intensive reflection of practice in small groups ensures effective reflection of previous practice, improvements and reinforcement of experience. After the course an internship of 3-5 days supports the practical implementation. Further training and assessment of competencies in their own department are recommended before delegation of sedation can take place.

Official recognition: Courses can apply to be recognized officially by the German Society of Gastroenterology (DGVS) and the German Society of Endoscopy Nurses (DEGEA) and will be considered based on the structure, content, facilities and the teaching body of courses.

Effect on daily practice: Between February 2009 and September 2010 221 courses in 22 different institutes were officially recognized all over Germany. 2310 nurses attended the courses. A survey among 450 nurses and a structured assessment during endoscopy specialist education showed significant improvements

for endoscopy patient care in Germany. The survey (reply rate 37.5%) compared the working situation before and 3 months after completing the courses. Improvements could be found in 85.1% of participants, covering the availability of equipment as well as the organization of the sedation and recovery. The assessment during the endoscopy specialist education looked especially on the process quality during sedation and recovery. 99 % Endoscopy rooms were adequately equipped with monitoring and resuscitation devices while endoscopy specific recovery rooms showed a lack of monitoring and resuscitation equipment in 15%. After the course 55% of departments updated their risk assessment by using the ASA classification. 74% of nursing documentation was reviewed and improved after the course. The courses initiated a clear trend from combined sedation to Propofol monotherapy. Structured recovery and discharge criteria as well as uniformly written information for patients underlined significant improvements. Hospitals employed new staff, moved staff from other department to endoscopy units or changed the nurses' shifts. The aims of these measures are to ensure three persons in the examination room during each endoscopic procedure and to increase staff in the recovery area. The nurses' role and responsibilities in endoscopy has been expanded. Nurses can manage sedation in low risk patient during low risk procedures, under the supervision of an experienced physician. Moreover, nurses have become more aware of their limitations. Clear statements in the German guideline underline that a second physician who is experienced in intensive care medicine should perform the sedation of patients ASA \geq III and) and during long, complex therapeutic interventions. After the course nurses expressed more self-confidence to highlight deficiencies in their own department as the course gave them updated knowledge and evidence.

Conclusion: The national Core curriculum provides a structured framework for a professional and balanced 3 days course to train nurses in sedation and emergency management. First evaluations showed improvements in the participants departments and practice. Nurses are aware of their knowledge, skills and limitations.

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Learning outcomes: Participants should be more

- Aware of the nurses role in sedation and monitoring, their options and limitations
- aware of additional options to train nurses in sedation and emergency management
- aware of the effect of structured training on the quality of patient care in endoscopy
- get ideas how to establish similar training system in their own countries

L-18

The use of entonox as an alternative to opioid analgesia for lower GI endoscopy

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Introduction: Traditionally colonoscopy has been performed using a combination of conscious sedation and analgesia in the form of a benzodiazepine and an opioid¹ but has associated increased risks of serious cardio respiratory complications. Recently patient administered nitrous oxide in 50% oxygen has come into use as an alternative to combined opioid and benzodiazepine medication in lower endoscopy procedures.

Aims and methods: A search of the following data bases was undertaken. The National Electronic Library for Health, Medline, Cinahl, Embase and the Cochran library. All studies were considered if they reviewed the use of entonox as an alternative pain relief in lower endoscopy procedures.

Results: Most of the studies reviewed were randomised controlled trails and overall numbers were small. Rapid recovery time was considered an advantage with patients being able to travel unescorted and being able to drive and resume normal daily activities within a shorter time frame as opposed to conventional benzodiazepine/opiate medication

Conclusion: Although there are limited studies supporting the use of entonox during lower endoscopy procedures its use as a successful pain relief in other areas of practice such as dentistry, midwifery and accident and emergency is widely published in the literature.

Sheffield's practice varies from the norm as the majority of patients undergoing lower endoscopy procedures, colonoscopy, flexible sigmoidoscopy and pouchoscopy undertake the procedure with entonox alone. Sedation and opioids are offered but the convenience of entonox and its associated lower risks appears to be favoured (Current figures pending to be discussed at conference) Further research is to be undertaken within the Sheffield Teaching Hospitals.

Referenced: Epstein O BSC Guidelines 2006

Session 5: Inflammatory Bowel Diseases

L-19

Surgery in Inflammatory Bowel Diseases (IBD)

Felix Lluís, Alicante, Spain

Crohn's disease of the small bowel: Crohn's disease can occur anywhere in the digestive tract, from the mouth on down. Terminal ileum and cecum are most commonly affected; usually segmentary and transmural. **Indications for surgery:** failure of medical treatment (3 out of 4 patients during first decade of disease; 1 out of 2 during second decade); or complications of medical treatment (i.e.: bone demineralization after prolonged corticoid treatment; sepsis during Infliximab® treatment). **Preparation for**

surgery: antibiotic prophylaxis; low molecular weight heparin; enteral or parenteral nutrition; be aware of risks derived from corticoid treatment; Infliximab doesn't increase risk. **Surgical techniques:** resection (1-2 cm beyond macroscopically affected margin); stricturoplasty; by-pass; or temporary stoma. (*) Laparoscopy should follow same principles as open surgery. (**) Recurrences always occur proximal to resection site. **Specific indications for surgery:** obstruction (elective ileo-cecal resection being the most common); sepsis (percutaneous guided drainage of abscesses may be required before elective resection of affected segment); entero-cutaneous or vesical fistulae (resection of affected segment, resection of fistulous tract, and closure of secondary orifice); other (perforation, hemorrhage, etc).

Ulcerative colitis: Surgical resection of the affected colon/rectum is the only curative treatment, needed in 30-40% of patients. Surgical treatment should offer good quality of life. **Emergency surgery** is indicated in fulminant colitis, toxic megacolon (> 6 cm in diameter), and massive bleeding. **Elective surgery** is indicated in failure of medical treatment, severe dysplasia or carcinoma, and extra-intestinal manifestations refractory to medical treatment. **Surgical techniques:** *Emergency surgery:* colectomy + ileostomy. *Elective surgery:* procto-colectomy + ileo-anal reservoir + temporary ileostomy; total procto-colectomy + Brooke's ileostomy; or colectomy + ileorectal anastomosis. (*) Laparoscopic surgery should follow same principles as open surgery.

Crohn's disease of the colon and rectum: Isolated colonic involvement occurs in 25-30% of cases. Symptoms are similar to ulcerative colitis but rectal and extra-intestinal involvement is more severe. Surgery is not curative. **Surgery is indicated** when medical treatment fails, or if complications appear (fistulae, abscesses, intestinal obstruction or perforation). Surgical resection should spare unaffected areas of the colon. **Surgical techniques:** *Emergency surgery,* similar to ulcerative colitis (colectomy + ileostomy). *Elective surgery:* derivative stoma (in the presence of perineal sepsis, recto-vaginal fistula, rectal flap); resection of fistulous tract and closure of orifice to other viscera; or resection of stenotic segments of the colon

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L- 20

The role of the nurse in the safe administration of Infliximab

Irene Dunkley, Huntingdon, UK

Infliximab is Chimeric human-murine monoclonal antibody used in the treatment of Crohn's disease. Its use has transformed treatment options for patients with severe Crohn's disease. Within the National Health Service we are required to deliver cost effective

health care. The National Institute for Clinical Excellence (NICE) has produced guidelines for the use of anti TNF's including Infliximab.

Nurses are a key part in any team where the aim is delivering patient centred and cost effective health care. Patient safety is paramount in the delivery of any health care. Anti TNF treatment whilst providing many benefits also has associated risks. We need to ensure our patients are informed of both the risks and benefits in order for them to make balanced decisions that are right for them.

Within this presentation I will explain:

- What Crohn's disease is and the treatment options.
- The Implications of National Institute Clinical Excellence (NICE) guidelines.
- Audit of practice in complying with NICE 2002 guidance in a DGH.
- The changes to our practice since NICE guidance and audit results.
- Assessment and documentation to safely administer Anti TNF treatments.
- The results of patient satisfaction survey with our infusion service.

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L-21

Use of complementary and alternative medicine (CAM) among patients with inflammatory bowel disease (IBD)- Classification criteria determine level of use

Randi Opheim, Oslo, Norway

Use of complementary and alternative medicine (CAM) is widespread and increasing substantially in the Western World. As an example, in the Norwegian population, the use of CAM have in general increased from 34 % who reported "ever used CAM" in 1997 to 49 % who had received CAM by CAM practitioners "the last 12 months" in 2007(1). Use of CAM seems to be more prevalent in patients with chronic disease (2-4). Inflammatory bowel disease (IBD) is characterized by a chronic and relapsing disease course and periods in remission. The medical therapy given is often effective in inducing remission, while no therapy does guaranty relapse prevention or can cure the disease. Several studies have indicated a trend towards increasing reliance on CAM among IBD patients (5;6). Somewhat, prevalence of self-reported CAM use among patient groups is difficult to interpret, possibly because the definition of a CAM user varies widely between studies. Some studies report all possible

nonconventional health activities including prayer and exercise as CAM use while others limit the reported use of CAM to be only CAM treatment given by a therapist. It is also likely that self reported use varies dependent on whether the question addresses use of specific CAM methods connected with inflammatory bowel disease (IBD) or CAM use in general.

The aim is to give a presentation of a six level model for classifying patient reported exposure to CAM (7). The model describes six cut-off points that would represent widely accepted levels of exposure to CAM. Use can include visit(s) to a CAM provider, dietary supplements, self-help CAM techniques, dietary changes, exercise, prayer, or a combination of all. It also notifies the time spent with the CAM exposure as an important cut-off point. In addition, some results of CAM use in Norwegian and Slovak patients living with IBD will be presented. In a population based prospective study in Norway, the IBSEN study (8), 30 % of the IBD patients reported CAM use ten years after diagnosis. In this study patients were asked in a structured questionnaire one generic question about CAM use. The CAM modalities most frequent reported were homeopathy (39 %) and acupuncture (13%). Only 3 % reported seeing a healer. Significantly more women reported CAM use than men irrespective to diagnose, but men with UC reported significantly less CAM use than the other groups. We compared these result by asking the same generic questions about CAM use to IBD - patients identified by a university hospital registry in Martin, Slovakia. Thirty five percent reported CAM use, the most common was homeopathy (28%). As in the IBSEN study, more women than men reported CAM use in general, and a gender difference only in the UC group.

Conclusion: One third of the Norwegian patients and the Slovak patients reported CAM use if defined as seeing a CAM provider since diagnosis. More women than man used CAM irrespective to diagnosis. However, prevalence of CAM use or how to define a "CAM user" is dependent on classification criteria. In the questionnaire in use it needs to be an opportunity to report all different exposures to CAM, time spent with the CAM exposure, and if it is used related to the disease or use in general.

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L-22

Communication with IBD patients

Lukas Degen and Wolf Langewitz, Basel, Switzerland

In a series of seminars with health care providers (hcp) in Gastroenterology the most typical elements of difficult hcp and patient interactions were:

- the unpredictable course of the disorder
- the constant threat of suffering a relapse
- the impact of chronic medication on the self-perception of vulnerability or safety
- in some: the constant awareness of the risk of unplanned bowel activity

Other topics were more controversial: e.g. the influence of IBD on the quality of private relationships; influence on professional fulfillment, etc.

From these examples it was clear that communication about difficult life situations with IBD patients has to start from scratch: even though hcp's develop a long list of potential complications, they never know to what extent an individual patient is actually suffering. This basic assumption requires a communication style that encourages patients to engage in a narrative i.e. to describe their situation in their own words, without being interrupted by asking for specific details.

Principles of such an approach will be described in more detail.

L-23

Patient's personal experience with IBD

Bruno Raffa, Aarau, Switzerland

My presentation is about **the hopes, expectations and experiences from the patient's point of view**. I could considerably shorten it by presenting the conclusions here and now:

1. Our hope is for colon cleansing solutions to taste delicious.
 2. Our expectation is for the examination to be as pleasant and pain free as possible.
 3. Our worst colonoscopy experiences we would not even wish on our worst enemy.
-

Session 6: Thoracic Medicine

L- 24

Introduction of endoscopic bronchial valve implantation by flexible bronchoscopy in the tertiary care setting

Ortmann M, Ferke B, Pflimlin E, Grendelmeier G, Stolz D, Tamm M, Basel, Switzerland

Background: Flexible bronchoscopy is used worldwide since 1966 for the diagnosis of lung diseases. There are a growing number of diagnostic and therapeutic procedures that can be now offered through flexible bronchoscopy. Recently, a new bronchoscopic lung volume reduction intervention for patients with advanced emphysema and COPD has been proposed. The introduction of this procedure into a university background is a challenge for all participants.

Aim: Our main goal is to describe the efficiently introduction of a new bronchoscopic technology in an university setting. The secondary goals are to provide detailed information to the endoscopy personnel over the correct and safe handling of the new endoscopic material and over the indications of the procedure.

Methodology: The following steps are to be taken for the introduction of the procedure: discussion of the indication and need to the procedure among respiratory physicians, and endoscopy team; information of the team manager about the medical background of the intervention; discussion of the previous data including feasibility, safety and efficacy of the procedure in other centers; discussion of technical particularities of the intervention together with technology manufacturer and respiratory physicians; presentation of the intervention to the endoscopy team by the endoscopy manager; theoretical and practical presentation of the intervention to the endoscopy team by the manufacturer; training and discussion within the endoscopy team; carrying out the procedure by the endoscopy team and respiratory physicians; briefing between endoscopy team and respiratory physicians for correction and/or optimization of use of the new technology; routine use of the method; regular re-briefing of indication, carrying out and results of the technology.

Results: The introduction of the new technology took place in 2010 and the implementation of endobronchial valve implantation by flexible bronchoscopy required a total of 12 weeks. There were a total of 3 training sessions for the endoscopy team. For the first patients, four endoscopy nurses were involved, for the following patients three persons were present for endoscopy assistance. A total of 12 patients have been treated with a total of 82 valves. 32 valves were implanted on the upper lobes, 4 middle lobe and 46 lower lobes. All patients were sedated with propofol and hydrocodone, the mean dose required was 503 mg and 8 mg respectively. The duration of the procedure ranged from 30 to 55 minutes. There were no major complications during the procedure.

Conclusion: Endoscopic bronchial valve implantation by flexible bronchoscopy can be successfully implemented in a specialized endoscopy setting. The technology introduction must be reasoned and planned in advance. The motivation of the endoscopy team

depends on the efficient transmission of background and handling of the procedure.

L-25

Sedation and complications during flexible bronchoscopy

Ales Rozman, Golnik, Slovenia

Bronchoscopy is an invasive procedure, which is frequently associated with anxiety, dyspnea, cough and sometimes pain. Sedation is primarily intended to reduce all these unpleasant feelings, consequently improving patient's cooperation and satisfaction with the procedure. Sedated patient is more still during procedure, which enables bronchoscopist to perform procedure faster and more accurate. Sedation also minimizes the risk for traumatic experience of the patient and therefore raises likelihood of new approval for procedure if necessary.

Sedation in flexible bronchoscopy has also some unwanted features. They are mostly connected with delay in patient's recovery time and with cardiopulmonary complications. Costs of procedure in sedation are higher compared with procedure, performed only in local anesthesia.

Life threatening conditions including respiratory depression can arise during sedation. Therefore we must keep high level of consciousness and expertise, when using sedation. Most important points are:

- careful selection and evaluation of the candidates before the procedure
- selection of the sedation – inducing agent
- selection of the dosing regimen
- careful monitoring during sedation
- early recognition of the complications
- proper management of complications

There are no absolute contraindications for sedation, yet some patients have higher risk for adverse events. Those are: older patients, patients with comorbidities, patients with difficult airways, patients taking multiple drugs etc. Proper sedative agent should be chosen before the procedure: benzodiazepines and morphines are widely used and have antagonists in the case of overdose. Propofol has shorter recovery time and little adverse events, but no antagonist.

The risk of adverse events in fragile patients can also be minimized by dosing regimen: we practice lower starting dose, slower rate of administration and less frequent intervals during application.

Careful monitoring during sedation is crucial for patient's safety. Trained nurse performs visual monitoring, measurements of heart rate, blood pressure and oxygen saturation with pulse-oxymetry. Visual monitoring is very important, because early changes can be recognized before changes in vital signs (for example: respiration arrest can be recognized before decline in blood oxygen saturation). The members of bronchoscopy team, which uses sedation during procedures, must be trained in cardiopulmonary resuscitation: they must be able to maintain airway patency (including tracheal intubation), perform mechanical ventilation, use antagonists and perform entire resuscitation if necessary.

Serious complications fortunately rarely occur (<1%). They are respiratory depression with hypoxia or

hypercarbia, cardiovascular instability and vomiting and aspiration.

L- 26

Sedation and complication during flexible Bronchoscopy

Cristina Burrel Deicke, Barcelona, Spain

Abstract not submitted yet

Session 7: Education

L- 27

Nursing education: Current situation and future challenges

Adelaida Zabalegui, Barcelona, Spain

The delivery of nursing care is changing dramatically. The increasingly complex patient care is related to population longevity, shortening of hospital stays, scientific advances, new technologies, patients participation in decision making and population mobility. Nursing education must keep pace with these changes which require specific professional competencies to address healthcare needs of actual or potential gastroenterology patients and their families.

Furthermore, nursing education in Europe is also changing rapidly in accordance with the framework of the Bologna Declaration signed by the European Union Ministers of Education and within the trend towards globalization. The purpose of this presentation is to provide an overview of nursing education. A brief review of the development of the European Higher Education Area will be presented, together with its recent reforms and a view of future developments. Educational issues in nursing will be presented such as licensure and certification. Finally, educational recommendations will be presented.

These educational changes allow nurses to reach the highest academic degree based on accredited official master and doctoral programs that will enhance nursing recognition, professionalism and expertise. Nurses with higher education will lead to a step change in the quality of nursing practice throughout Europe to the benefit of European citizens and their health and social care needs.

L- 28

Knowledge transfer strategies for implementation and clinical utilization of research information

Maria Teresa Moreno Casbas, Madrid, Spain

Abstract not submitted

L- 29

The ethical role of supervision in the education of gastro-intestinal nurses

Darja Thaler, Ljubljana, Slovenia

Introduction: Supervision has a crucial role in the development of ethical nursing care, which is defined as promoting the values of clients' well-being, respecting their choice, assuring privacy and confidentiality, respecting quality of life, maintaining commitments, etc. Supervision implies professional support and learning, undertaken through a range of activities, which enable nurses to develop knowledge and competence, assume responsibility for their own practice and enhance service-user protection, quality, and safety in complex clinical situations. It is central to the process of learning and practice and should enable the self-assessment and analytical and reflective skills. High-quality supervision leads to better outcomes of the patients' care.

The debate on clinical supervision in nursing became more important in the beginning of the 20th Century. Nowadays it is generally agreed that clinical supervision should enable the development of new skills through reflection on practice. However, many supervisees expressed that they were not given enough supervision and needed some more.

The aim of the present study was to understand the representations of the clinical practice nurses, about the nursing students' supervision and its positive effects. It was also to identify the positive influences of the supervision on the development of the nurses' competences.

Method of data collection was a semi-structured interview of two groups of nurses. The first group included the nurses, who did not receive any clinical supervision and the second group included the nurses, who had this experience.

Results of the study showed that the supervised nurses developed higher ethical standards and were more self-conscious. 97% of the interviewed nurses were sure that supervision is important and that it can contribute to the improvement of the quality of their work.

Summary of the results: The attitudes towards the introduction of additional supervision in the permanent nursing education were very positive.

Conclusions: Supervision is considered by the Slovene GI nurses as very important for their professional development, the quality of their clinical care of patients, and the development of high ethical standards. There is a strong wish to be given more supervision during the course of permanent education.

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Learning outcomes: Clinical supervision is a professional support that enables nurses to develop knowledge, competence and responsibility for their practice. Many nurses express the need for more supervision during their studying and in their clinical practice.

L-30

Gastroenterology education in private hospitals in India and South Africa

Chris Mulder, Amsterdam, NL

In South Africa, nurses and doctors are emigrating in significant numbers. Job satisfaction, safety and ensuring career progression are important in retaining doctors to make a career in Republic of South Africa (RSA). Due to budgetary constraints many hospitals have not been upgraded. Coming home after overseas training seems difficult. In RSA it takes a minimum of 13 years for a young specialist to become registered and 15 years for sub specialists. Career progression, creating more specialist trainees in public and private hospitals and shortening the period of professional training are potential solutions to the problem. India, which has a population of more than 1 billion people, is struggling with similar problems. For the past 10-15 years, private hospitals have assisted in manpower development for medical specialist and sub specialist careers. Currently their private sector trains 60% of their recognised (sub) specialities fellows. A national

task force for specialist training in RSA should be instituted. It should discuss, based on the current status and projected specialist and sub specialist personnel requirements, the future structure and logistics of training needs. This is required in all sub specialities including gastroenterology, as has been done in India. It is hoped that as a consequence well-trained doctors, similar to those in India, might move to provincial hospitals in rural areas, upgrading the medical services and keeping medical power in South Africa. South Africa should become a model for Sub-Saharan Africa, as India already is for South-East Asia.

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Session 8: GI Diseases

L-31

Care for Gastrointestinal cancer (GIC) patients in the community

Dolors Garolera Bruguera, Barcelona, Spain

The prevalence of gastrointestinal cancer is a health problem in developed countries. Some types of gastrointestinal cancer such as the esophagus, the stomach, the pancreas and liver have a poor prognosis and this implies that the mortality rate is good information on its incidence. In Spain, colorectal cancer is the second leading cause of death in men and women.

Since guidelines established by the "WHO" in 2002, and through the publication in Spain of the "Strategy of Palliative care" in 2007, there have been a rapid increase in palliative care services for example the "homecare support teams".

Since 1990, PADES is a specialized homecare support team in Catalonia for primary healthcare in complex situations in the field: of palliative care, of geriatrics, of dementia and other neurological diseases, which could benefit from the expertise of the interdisciplinary team. In addition to direct care, PADES plays an important role in the coordination of resources between different levels of attention, and also in teaching the network of primary healthcare.

The healthcare providers in this interdisciplinary support team are 1 physician, 3 nurses and 1 social worker. It also could be other professionals like psychologist. All of them are knowledgeable and skilled in palliative care.

In the rural PADES I have worked for 3 years, and of the 185 patients we have had in 2009, 159 (85,9%) were cancer's patients, 49 (30,1%) of them with gastrointestinal cancer. 63,3% of them died at home and 36,7% died in the hospital.

PADES aims to treat and to relieve all active issues, prevent new issues from occurring and promote opportunities for meaningful and valuable experiences and for personal and spiritual growth.

The key elements for good palliative care intervention are: team work, treatment plan and systematic evaluation, advanced care planning, symptoms' control, ethic clinics and effective communication.

PADES starts providing care to patients and families at home when primary healthcare providers by themselves or through a demand from the hospital specialist think that a palliative care support is necessary. Patients are usually enrolled in PADES for the presence of one or more different symptoms: pain, nausea, vomiting, dysphasia, constipation, weakness, confusion and psychological symptoms.

A therapeutic relationship between caregivers and the patient and family evolves over time through a series of therapeutic encounters. The actual content discussed during a given encounter will depend on the phase of the relationship (intake, ongoing care, discharge) and who is present (patient, family, physician, nurse, social worker).

Nurses are essential and basic in this therapeutic encounter (assessment, information sharing, decision-making, care planning, care delivery and confirmation). The patient goes to visit the hospital for certain kinds of treatments, like palliative chemotherapy or if it becomes necessary.

Frequent phone calls alleviate pressure and give extra support to patients and families.

PADES has its own weekly meeting and also weekly meetings with hospital district-based catchments areas in person or by phone and try to have a good connection with primary healthcare providers.

By this network connection the caregivers review and discuss the common issues and the therapeutic plan to relieve suffering and to improve the quality of living for the patients and families. Moreover it helps to plan the care for the last days of their life and to find the best location for the death of the patient. That should be at home if they are family caregivers available.

The "homecare support teams" and their model of intervention, with both formal and informal caregivers, intended to change the experience of patients as they live with, and transition through, their illness and bereavement.

We help patients and families to manage physical, psychological, social, spiritual and practical aspects if their difficulty situation.

Moreover, different studies show the palliative care services reduce the cost to The National Health service by reducing length-of-stay and a change in the type of bed used from the "conventional acute" to the palliative care beds in hospital and others sites such as Social-Health Care Centres.

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L-32

The nurses role in hereditary colo rectal cancer screening

Pilar Perez Rojo, Pamplona, Spain

Colorectal cancer (CRC) is one of the most prevalent tumours in our area and the second leading cause of cancer death. Although in most cases are sporadic tumours, 15-20% of them have a familial component and 5% associates with a hereditary syndrome. Interestingly, this is one of the malignancies that can benefit from preventive strategies.

Our final goal is prevent the incidence of CRC through secondary or tertiary prevention or, if this is not possible, minimise the impact that may result in the prognosis and quality of life of the affected members and her/his family.

Care profile:

- Families with poliposis syndromes
- Families with hereditary non-poliposis colorectal cancers
- Familial colorectal cancer families
- Patients who have had colorectal adenomas

The activity of the nurse within the Unit consists of:

- First visit in consulting genetic counselling.
- Document management:
- Managing special database (Progeny)
- Management of tumour samples from relatives with CRC treated at other centres.
- Register of immuno histochemical studies
- Registration of genetic testing.
- Blood extraction for investigation (IC).
- Monitoring Program colon adenomas.

The unit is within the Area of Digestive Pathology. But is a part of multidisciplinary area, which is formed by a multidisciplinary team that includes the following services: Pathology, Biochemistry and Molecular Genetics, Gastrointestinal Surgery, Oncology, Radiology, Psychology and Department of Gastroenterology.

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Learning outcomes:

- The scope of work of these Units
- The added value of nursing in these cases of consultation
- Data required compiling a useful pedigree

L-33

Old and new treatment of gastric antral vascular ectasia (water melon stomach)

Michael Manz, Basel, Switzerland
Abstract not submitted

SESSION 9: New Techniques and Developments in Endoscopy

L-34

Management of perforations of the GI tract

Jelle Haringsma, Rotterdam, The Netherlands

Gastrointestinal perforations are a devastating clinical emergency with a mortality rate reported to be as high as a 100 % when left untreated. They can occur as a result of malignant disease, radiation therapy or caustic ingestion. Often they are iatrogenic in origin, e.g. anastomotic leaks or endoscopic perforations. Traditionally, these leaks have been managed surgically. The surgical closure of perforations, and gastro-intestinal fistulas usually requires complex resection and reconstruction or deviation.

Increasingly these lesions are treated endoscopically. The last decade has observed a shift from an aggressive early operative intervention to a judicious, nonoperative endoscopic management in selected patients. Novel endoscopic techniques include the use of partially- and fully covered expandable stents, and suturing techniques with endoclipping devices. Encouraging outcomes for nonoperative management have been reported in the literature. Re-intervention rates are significant, however, surgery can be avoided in up to 95% of patients in some series. The guiding principles in the treatment of this challenging condition remain early diagnosis, re-establishment of luminal continuity, infection control, and nutritional support.

Conclusion: Endoscopic management of perforations is an attractive alternative for surgery in selected gastrointestinal cases.

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L-35

Endoscopic treatment of obesity and diabetes

Jürgen Hochberger, Hildesheim, Germany, Richard Rothstein, Hanover, NH, USA

Morbid obesity represents an increasing problem in the Western World. Obesity is classified according to the body mass index weight (kg)/height (m²) into the following categories: Acceptable Range 18.5–24.9 kg/m²; Overweight 25–29.9 kg/m²; Obese 30–34.9 kg/m²; Severe Obesity 35–39.9 kg/m²; Morbid Obesity 40–49.9 kg/m²; Super-Morbid Obesity 50 +++ kg/m². In 2002 34% of the 15 year old boys and 20 % of the 15 year old girls had overweight according to the American Center of Disease Control (CDC). The percentage of obese people with an BMI of greater

than 30 ranges in Europe between 15-28% and is suspected to raise to 19-35% in 2020 and to 23-43% in 2030.

Non-surgical therapy of morbid obesity is just of limited effect and may induce a series of measures for achieving a persistent weight loss. Diet and exercise alone lead to weight loss of 5-7%, behavioural therapy plus diet and exercise to 8-10%. Pharmacotherapy include inhibitors of intestinal fat absorption, appetite suppressants and agonists of the endocannabinoid system and may add another 5-8%. 'Bariatric' surgery as specific term for surgery in morbid obesity is currently the only therapeutic measure with a profound longterm effect. Restrictive surgical procedures include: 'Vertical Banded Gastroplasty' (VBG), 'Adjustable Gastric Band' (AGB) and 'Sleeve Gastrectomy' (SG). Restrictive surgery for obesity leading to malabsorption include 'Bilio-pancreatic Diversion' (BPD), 'Duodenal Switch' (DS) and 'Roux-en-Y Gastric Bypass' (RYGB). Longterm studies up to 15 years could prove a reduction in weight loss of 15-30% for gastric banding procedures or gastric bypass compared to control subjects. A second positive effect of bariatric surgery is a significant improvement in a diabetes type 2 often associated with morbid obesity within a metabolic syndrome.

New endoscopic procedures include barriers, sleeves and restrictive endoscopic interventional procedures e.g. mimicking a vertical band gastroplasty or covering part of the proximal small intestine with an impermeable fluoropolymer sheath. There is limited experience with these new procedures so far with no longterm data. However, they are promising with a total body weight loss of 16.6% after 24 weeks, e.g. in one of the first studies from Chile. Different interventions will be demonstrated and first results be shown.

5.3. ESGENA Poster Round I and II on 24 October 2010

P-1

Non-attendance in an endoscopic department

Charlotte Parnel and Trine Lange, Hillerød Hospital, Endoscopic section, Hillerød, Denmark

Introduction: "Non-attendance" seems to be a problem in our endoscopic department.

We planned to reveal the number and reason why some patients stay home. We suspected that some patients maybe were anxious about the examination.

Aim: To find the causes and to make suggestions and thereby minimize non-attendance.

Method: A prospective non randomized investigation with patient interviews was performed in a 5 month period.

All planned endoscopies from 01.09.2009 to 31.01.2010 were registered and non-attendances were contacted by telephone. A second call if it was necessary.

Questions were based on an interview-guide as follows:

- A brief presentation of ourselves
- A brief information of the purpose of the call
- The reasons of non-attendance were clarified
- Patients were asked for suggestions of improvement.

Results: In the period 1104 endoscopies were planned colonoscopies as the majority.

- 51 non-attendances were registered during the period representing only 4.4 % of the patients
- 27 patients were interviewed (53%)
- 13 patients claimed never to have received a call letter for the examination
- 9 of the patients had forgotten the appointment
- 5 "non-attendances" was not regular booked (our fault)
- No patients told that anxiety was a reason for non-attendance
- The patients suggested us to send a reminder letter

Conclusion: We found a surprisingly low number of non-attendances in the period (4.4%).

The reasons why the patients stayed home were anxiety, and the fact that they had forgot the appointment or never received a call letter.

Learning outcomes: A reminder letter or text message could possibly reduce the number of non-attendances.

The low non-attendance level in our department does not warrant a "reminder-initiative" (very low logistic failure too).

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P-2

A project – computer-based information systems in nursing management of endoscopy

Joaquim Andrade, Carla Sousa, Rafaela Bré, Ana Penso, Célia Leite, Sofia Bessa, Belém Afonso, Fernanda Lameiras, Carla Moreira, Nuno Cruz (Eng. informatic), Centro Hospitalar Do Alto Ave, Unidade De Endoscopia Digestiva, Guimarães, Portugal

Introduction: This abstract describe a set of procedures executed in the Digestive Endoscopy Unit from CHAA – Guimarães, which intend to improve managing methods in Endoscopy Unit Care. This informatics tool, developed specifically to satisfy the needs identified by our Unit, was built in partnership with the Informatics Department of our hospital.

Aim: Considering the lack of trust, the financial crisis and the lack of time, our aim was to implement, an adapted informatics tool which allow managing objectively and rationally, the nursing cares and monitoring the available endoscopes.

Method: Utilization of an informatics system that is already implemented since January, 2009. It was installed in a central server and it is available, and

ready to be used, in any computer of any place at work.

1. Main Menu: consists in three sections: 1st: Registers 2nd: Reports 3rd Data base.

2. Registers: Procedures register; Failures; Repairs; Bacteriological control.

3. Reports: Activity reports of each endoscope; Report of all procedures, of every endoscope; Failures of the endoscopes; Reports by professionals; Bacteriological control reports.

4. Data Base: Specification of endoscopes; 1st level procedures; 2nd level procedures; Physicians; Nurses; Auxiliary staff.

Fast and easy management system (only by clicking), which allows to collect information to the management of human resources and endoscopes, in real time.

The register routine, after each procedure, takes an average of 20 seconds.

Results: An imbalance was detected when it came to nurses performing specific procedures. Now it is possible to make work plans so that the whole nursing staff remains with homogeneous skills.

We managed to identify the endoscopes that were not being frequently used, and also the ones that had already suffered many failures/repairs and so should no longer be used.

The endoscopes monitoring and the progress of the nursing staff skills when performing specific procedures is now merely "a click away".

Summary: By using a computer based system adequate to our Unit specific needs, we came up with an economic, efficient, fast and of easy management solution. As the whole concept was developed in partnership with the nursing staff, we had no difficulties in implementing it and having the agreement of all nurses. The possibility of checking the data, in the actual moment, not only relatively to the nursing staff performing some procedures, but also to all the endoscopes used, allowed changing some wrong routines that were having a detrimental effect.

Conclusion: It is possible and advisable to correct flaws and detours, provoked by the daily practice based on random work plans, which inevitable creates heterogeneous staff teams, relatively to each other's competences. It is of extreme importance to monitor all our endoscopes, so that we know what procedures they have been used in, and if they have already suffered any failure. Therefore, we can determinate the most rational way to used them; in what frequency; the times of warranty; and also when will it be the proper time to stop using them. We reached the conclusion that the implement of these procedures, contributed to a much more objective, quantifiable, and therefore much more accurate management.

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Learning Outcomes: It's necessary to have a tool that enables us to monitor the development of a nursing staff's competences, in order to provide continuous quality health care.

It is convenient to monitor the use of the endoscopes to maximize their profit and find out procedures and/or professionals that make them faulty and needing repair.

P-3

Birmingham questionnaire as a useful tool for gastroenterology nurses

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Background: Irritable bowel syndrome (IBS) is one of the most common functional gastrointestinal disorders. It is a chronic, relapsing and often life-long disorder, characterized by the presence of abdominal pain/discomfort associated with defecation, a change in bowel habit together with disordered defecation (constipation or diarrhea or both) and the sensation of abdominal distension [1].

Aim: The aim of this study was to determine whether registered gastroenterology (GE) nurses can collect information in order to correctly appreciate the symptoms and disability generated by IBS.

Patients and method: The study was carried over 16 months (January 2009 – April 2010) in Research Center of Gastroenterology and Hepatology Craiova Romania on 102 patients diagnosed with IBS. Birmingham IBS symptom score [2] was offered to each patient by the nurse after doctor visit. The questionnaire, repeated after four weeks of treatment and diet restrictions, consisted in a self-completed questionnaire with 14 questions based on the frequency of IBS related symptoms. Each question had a standard response scale with symptoms all being measured on a 6-point scale. Furthermore the questionnaire was explained in detail to every patient by the GE nurse.

Results: The questionnaire was offered to 102 persons. The average age was 44.5 years (range 17–77), 74.67% were female (mean age 46 years) and 25.33% male (mean age 42 years). 99 (97.05%) of the patients accepted the questionnaire and filled in correctly. After four weeks 73 patients (73.73%) returned for consultation and filled in the questionnaire again. After analyzing the initial and the follow up score (calculated by GE nurse based on patients responses) we obtained a very good correlation ($p < 0.05$) with described symptoms and treatment effect.

Conclusions: The GE nurses can accurately appreciate the real physiological and psychological pattern of IBS patients. Furthermore, the high response rate and the high completion rates of all questions demonstrate the questionnaire's acceptability and effective role of the nurse in conciliating the patients.

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P-4

SHORTENING OF THE RECOVERY TIME BY THE USE OF FLUMAZENIL AFTER MIDAZOLAM SEDATION IN OVER 1000 PATIENTS

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Introduction: Many of the endoscopic procedures are performed after intravenous sedation with Midazolam. Afterwards, patients have to stay for 2 hours in a recovery unit. This adds significant costs to the procedure.

Aim: To investigate whether the administration of Flumazenil can shorten the recovery time without adverse events.

Method: Consecutive ambulant patients referred for endoscopy with conscious intravenous sedation with Midazolam were allowed to participate in the study when they were in ASA-class I or II, lived within one hour travel from the hospital, and were accompanied by relatives or friends. After the examination, patients received 0.2 mg of the Midazolam antagonist Flumazenil at the recovery room. After 15 min. the Aldrete score (without taking the blood pressure) was calculated and when ≥ 7 , patients were discharged. When the Aldrete score was not yet adequate, another 0.2 mg of Flumazenil was given and after 15 min. the Aldrete score was repeated. Patients received oral and written instructions and were contacted by telephone the next day.

Results: 1038 patients were included. They underwent a gastroscopy (358), a colonoscopy (479) or an endosonography (105). A median dose of 5 mg Midazolam (range 1.5-12.5) was antagonised by a median dose of 0.2 mg Flumazenil (range 0.1-0.5). In 530 patients a median dose of 50 mcg of Fentanyl was given. After a median time of 25 min. patients were alert enough to go home and after 55 min., i.e. a median of 120 minutes after the administration of Midazolam, they were at home. Of the 1038 patients, 520 took a nap at home for a median duration of 2 hours, the remainder stayed awake and undertook activities such as social activities (63), shopping and housekeeping (287), work or administrative tasks (55) and sports (44). Albeit forbidden, 6 patients drove a car without any adverse event. Fifteen patients preferred the usual recovery time of 2 hours after the endoscopy. Only one patient fainted on her way to a restaurant, no other adverse effects were noticed.

Summary: The recovery time in the endoscopy recovery room was reduced by 1.5 hours without adverse effects.

Conclusion: Antagonising Midazolam with Flumazenil is safe and reduces the workload on the recovery room. The great majority of patients preferred this method as it enabled them to undertake activities despite the fact that half of them took a nap.

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Learning outcomes

Optimising sedation and analgesia with post-procedural antagonising the effects of the sedation is safe and reduces the workload. A next-day consultation by telephone by nurses was highly appreciated by patients and gave important information to the nursing staff.

P-5

SAFETY OF PROPOFOL USE UNDER TRAINED NURSE-MONITORED DURING THERAPEUTIC ENDOSCOPIC PROCEDURE

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Background & Aims: Propofol is an effective sedative in diagnostic endoscopy. However, the rate of sedation-related complications is unclear in therapeutic endoscopy. We assessed the sedation-related complication with propofol use during therapeutic endoscopy.

Methods: Patients underwent therapeutic endoscopy including polypectomy, endoscopic submucosal dissection (ESD) with sedation using continuous infusion of propofol. Age and sex-matched patients underwent diagnostic upper endoscopy and/or colonoscopy as a control group. A certified nurse anesthetist determined sedative dosing with the goal of achieving deep sedation. Sedation related complications included respiratory depression ($SpO_2 < 90\%$) that continued for more than 20s, hypotension requiring vasopressors, and early procedure termination.

Results: 426 patients were enrolled from January 2008 to December 2009. Procedures included upper endoscopy (n=95), colonoscopy (n=13), simultaneous upper endoscopy and colonoscopy (n=77), endoscopic ultrasound (n=27), endoscopic retrograde cholangiopancreatography (n=3), ESD (n=72), and polypectomy (n=139). Respiratory depression occurred in 2 patients (0.5%) and premature termination of procedure in 1 patient (0.2%) because of hypoxia. No patients required vasopressors because of hypotension. 1 patient needs to perform endotracheal intubation due to hypoxia. There is no difference in mean blood pressure, respiration rate, and pulse rate between two groups. Higher dose of propofol was required in the therapeutic endoscopy group (428 vs. 193 mg, $P < 0.0001$)

Conclusions: Continuous infusion of propofol can be used safely for therapeutic endoscopy when administered by a trained professional.

Learning outcomes for audience:

Trained nurse-administered propofol sedation is safe and practical for therapeutic and diagnostic endoscopy.

P-6

The role of entonox in managing pain during colonoscopy

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Introduction: The evidenced states that the most effective screening tool for colon cancer is a colonoscopy^{1, 2}. Improvements in the technique are partially responsible for increase in survival rates from colon cancer over the last decade³. Pain poorly managed during a colonoscopy procedure may result in less than adequate examination of the mucosa on withdrawal due to time constraints and poor concentration by the endoscopist⁴. Colorectal cancer can potentially develop within a year after adenomas are missed during a complete colonoscopy⁵. Methods to lessen pain experienced during colonoscopy include; improved technology, narrower colonoscopies, hypnosis, music, audio distraction and the use of inhalation and intravenous medications⁶.

Aim: To examine the role of entonox in managing pain during colonoscopy.

Method: Critical evaluation of studies found through search engines: Embase; Medline; Web of Knowledge; Pub Med; Ovid; CINAHL; Cochrane reviews and Google scholar. The terms used were 'pain management', 'entonox', 'nitrous oxide', and 'colonoscopy'.

Summary of findings: Only one study found the use of Entonox significantly better for use as analgesia in colonoscopy⁷ and another in sigmoidoscopy⁸. Although there was no significant difference found in pain relief Entonox was comparable to IV propofol⁹; IV midazolam/ ketobemidone¹⁰; IV midazolam/pethidine¹¹ and IM pethidine¹² for pain relief in colonoscopies. One study found IV midazolam/pethidine significantly better but this may have been due to a higher dose of midazolam¹³. Studies examining Entonox use in colonoscopy were limited. Three studies examining Entonox use in sigmoidoscopies were included in this paper. Harding and Gibson (2000) found a significant difference and explained that the other studies may not have found Entonox more effective due to small sample size¹⁴ or poor inhalation technique¹⁵.

Conclusion and Learning outcomes: All studies conclude recovery from sedative effects of nitrous oxide is faster compared with intravenous analgesia. The use of Entonox for colonoscopy reduces recovery time allowing for faster discharge and this will benefit the efficient running of an endoscopy unit. The review did indicate improvement in the technique for administering Entonox could possibly lead to better management of pain.

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P-7

SYSTEMATIC USE OF TOPICAL PHARYNGEAL ANESTHESIA IN ENDOSCOPY UNIT, DOES IT IMPROVE THE TOLERANCY?

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Introduction: The esofagogastroduodenoscopy is one of the most common and useful method employed for diagnosis in gastroenterological disorders. This exploration usually generates anxiety in the patients that result in a decrease of the quality of the exploration by nausea and vomiting. The potential benefits derivated of the use of intravenous sedation remains controversial because of additional potential risks in a brief and safe procedure.

Aim: Evaluation of clinical efficacy of topical pharyngeal anesthesia with lidocaine spray in esophagogastroduodenoscopy (EGD).

Methods: A prospective, observational, randomized, placebo uncontrolled and unblinded study was performed in our endoscopy unit during January 2010. Outpatients (109) were recruited prospectively and randomized between two groups: S group (52), who received lidocaine (50 mg Xylonibsa 10% before exploration), and N group (57) who not. Age, sex, Mallampati index (lower I and II; higher III and IV), endoscopist, complications and score (0-100; visual analogic scale) was recorded after each EGD.

Results: There are not statistical differences between two groups about the patient tolerance. However in stratified analysis the application of lidocaine modified the results in two of six endoscopists and improved the scores in higher Mallampati Index patients (S group 61,8±24 and N group 47,7±32). Also we demonstrated relevant differences in the scores between different endoscopists regardless the use of topical pharyngeal anesthesia or not.

Conclusions: The systematic use of lidocaine in EGD is safe but not improves the tolerance in all outpatients. Only the Mallampati index has been identified such prognosis factor of good response to lidocaine administration. Additionally the nursing-endoscopist could be a very important factor in the scores obtained itself independently of lidocaine.

Whats new: The use of topical pharyngeal anesthesia in selected patients (higher Mallampati) and the human factor of the endoscopy units are two unique factors that are involved in better tolerance scores.

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P-8

Nurse's role in Endoscopic Dilatation of Benign Esophageal Strictures: our experience

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Introduction and aim: Patients with esophageal stenosis require repeated dilations scheduled according to the severity of their dysphagia. This makes the procedure stressful and technically demanding. Here we present the experience in the treatment of benign esophageal strictures during an 8-year period.

Method: The strictures were classified at every session on a 0 to 4 scale on the basis of the diet and the luminal diameter. Savary-Gillard or Through-the-Scope balloon dilators were used depending on the type and the location of the stenosis. Patients were treated under sedation with propofol.

Result: Ninety-five patients were treated by endoscopic dilatation without fluoroscopic guidance. The etiologies were: anastomotic (38), postfundoplication (13), caustic (14), peptic (11), radiation-induced (10) and others (9). A total of 472 dilation sessions were carried out without serious complications. The procedure was well tolerated by the patients. A normal and a semisolid diet were respectively achieved in 75% and 91%. Recurrence of dysphagia was found in 33% and 51% of the patients respectively after 2 months and 1 year. Improvement of dysphagia, the number of sessions, and recurrence were significantly better in the patients with postsurgical stenosis as compared with those affected by caustic, peptic, and radiation-induced strictures.

Conclusion: Endoscopic dilatation is a safe effective treatment for esophageal strictures, with high percentage of success. Recurrence is frequent, but can be often treated again by the same procedure. The team should be well coordinated and well trained to reduce the risks for this procedure. The use of propofol is helpful to reduce the patient's anxiety despite repeated procedures. The role of nurse is important to manage with anxiety, to evaluate the dysphagia of the patient and to obtain a safe procedure.

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P-9

New minimal invasive flexible endoscopic intervention: Magnemosis (experimental results)

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Introduction: Gastric outlet obstruction could be caused by benign (pyloric stenosis, chronic pancreatitis) and malignant (pancreatic-, bile duct-, distal stomach cancer) diseases. The "gold standard" palliative treatment is surgical creation of gastro-entero anastomosis (GEA). Besides, there are minimal invasive techniques as well, like laparoscopic GEA or duodenal self-expandable metal stent implantation. However, surgical interventions (even laparotomic and laparoscopic ways) are needed narcosis, by this way they are risky to the patients usually in poor general conditions caused by malnutrition and malignancy; self-expandable metal stents can be easily occluded or migrate.

Method: At the 1st Department of Surgery, Semmelweis University an experimental endoscopic, X-ray guided gastro-entero anastomosis was created by using magnets. The theory of so called magnamosis is based on the compressive force of attached magnets placed into different luminal organs, which causes for first ischaemia, then adhesion, and after necrosis of the walls, in 7-10 days the anastomosis is created. After practicing the intervention on biosynthetic model the procedure was made on living porcine model as well. For the intervention two silicone-covered rare earth (NdFeB) magnets were used. The first magnet was introduced per orally into the duodenum by flexible endoscope and a guide wire. The second magnet was guided into the stomach with the same technique. The attachment of the magnets was helped by the guide wires and the endoscope under fluoroscopy. There were no any complications during the procedures.

Results: Two weeks later the magnets were removed at the control endoscopy. The endoscope could have been managed through the anastomosis from the stomach into the jejunum.

Conclusions: The magnetic creation of GEA is an easy way to make a bypass. This procedure could be an alternative palliative therapy for poor general conditioned patients with gastric outlet obstruction, because it is carried out without surgery and narcosis.

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P-10

Patient quality of life and patient safety in bravo capsule endoscopy

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Introduction: In the recent years, new treatment methods, such as impedance and Bravo capsule, are used for diagnosis of gastroesophageal reflux and gastrointestinal motility disorders. Bravo Capsule is a capsule called pH-metry, which is placed on the lower part of the esophagus during endoscopy to send recordings to a receiver located on the patient for 48 hours, then eliminated spontaneously from the body. Bravo Capsule method is a simple and modern technique rapidly becoming widespread all across the world.

Aim of this study is to show the influence of Bravo Capsule having a significant role in diagnosing reflux in comfort and quality of life.

Method and results: Receiving Bravo capsule placement in the clinic, 33 patients were asked to complete a questionnaire of 11 questions after 24 hours and quality of life was assessed through the questions asked in line with the WHO quality of life scale. A pain assessment was also conducted in accordance with visual analog scale (VAS).

Table: Results

Level of Education	Secondary Education 14 Patients 42.4%	University Degree 19 Patients 57.5%			
General Medical Condition	Perfect 1 Patient 3.0%	Very Good. 6 Patients 18.1%	Average 8 Patients 24.4%	Bad 18 Patients 54.5%	
Pain upon Capsule Placement	Never. 8 Patients 24.2%	Very Slightly. 8 Patients 24.2%	Slight 5 Patients 15.1%	Medium 6 Patients 18%	Severe 6 Patients 18.1%
Physical and Psychological Status	Not influenced 20 Patients 60.6%	Slightly influenced 5 Patients 15.1%	Moderately influenced 4 Patients 12.1%	Severely influenced 3 Patients 9.0%	Very Severely influenced 1 Patient 3.0%
Any Hinders on Activities?	Severely influenced 3 Patients 9.0%	Slightly influenced 5 Patients 15.1%	Not influenced 25 Patients 75.7%		
Difficulties in Eating	Not influenced 8 Patients 24.2%	Slightly influenced 10 Patients 30.3%	Moderately influenced 8 Patients 24.2%	Severely influenced 7 Patients 21.2%	
Difficulties in Drinking	Not influenced 15 Patients 45.4%	Slightly influenced 6 Patients 18.1%	Moderately influenced 6 Patients 18.1%	Severely influenced 6 Patients 18.1%	
Difficulties in Swallowing	Not influenced .	Slightly influenced .	Moderately influenced .	Severely influenced .	

7 Patients 21.2%	14 Patients 42.4%	5 Patients 15.1%	7 Patients 21.2%	
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Patients were questioned about their level of education and general medical condition before the process. Patients answered the questions on the severity of pain behind the chest bone upon bravo capsule placement, physical and psychological health, the influence of the process on their familial and friend relations, and whether their daily activities were hindered. Using designated scales, it was detected whether the patients have difficulties in eating, drinking or swallowing.

Conclusions: Bravo capsule is shown to be a safe method that is easily tolerated by the patients without any hinders on daily living activities and can be used safely in proving the treatment response pre- and post-treatment.

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P-11

The contribution of nursing staff to the success of needle knife fistulotomy during difficult ERCP

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Aim: The aim of our study was to highlight how the level of nursing staff experience affects the success rate of the needle-knife pre cut sphincterotomy (NKF-ES) during endoscopic retrograde cholangiopancreatography (ERCP).

Methods: In an eight-year period, 1117 patients (age range: 16-102) underwent ERCP, with a successful endoscopic sphincterotomy. In 138 patients (12%), the direct catheterization of the ampulla of Vater proved to be difficult. A protocol was used by the nursing staff for the clinical observation of patients during the ERCP and for a period of 24-hours post-procedure. Emphasis is given to the recognition of individual complications, in conjunction with clinical symptom recognition, haemodynamic profile, temperature charts, serum glucose measurement and fluid balance.

Results: The success rate of common bile duct catheterization with the NKF was 98%. No major complications were observed. 5 patients (0.7%) developed pancreatitis and one developed mild hemorrhage on the day of the procedure. None of the complications were in any way connected to insufficient support or attendance by the nursing staff.

Conclusions: The nursing staff of the endoscopy unit attends and evaluates patients undergoing ERCP. The knowledge of the procedure and the related complications, plays an important role in the outcome of patients who undergo needle-knife fistulotomy during ERCP.

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P-12

NURSING ROLE IN A NEW TECHNOLOGY: ENDOSCOPIC RADIOFREQUENCY ABLATION OF BARRETT'S ESOPHAGUS

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Background: Barrett's esophagus is the mutation of normal esophagus epithelium with intestinal metaplasia due to chronic gastroesophageal reflux and is a condition causing predisposition to cancer.

Radiofrequency ablation, also known as the HALO system, eradicates Barrett's esophagus in 98 % of the treated patients. This technology consists of a circumferential, superficial and controlled burn in the mucosa, resulting in few adverse events.

Aim: To describe the role of nurses involves in this new technology.

Material: This treatment is carried by conventional gastroscopy and the HALO system which consists of a sizing balloon to determine the esophagus caliber, an ablation balloon and a power generator to produce a controlled circumferential burn. Also needed are: a mucolytic solution to clear mucus from esophagus before ablation and a silicone cap to remove clots and mucus from the treated areas.

Methods: Nurses are involved before, during and after the procedure. First, the patient is received in the endoscopy unit by a nurse who begins preliminary care: providing information, keeping track of patient data and giving support and trust in a soothing environment. The patient should have fasted for 8 hours prior. A peripheral venous access is established with a saline solution along with accessories for the administration of deep sedation, so the heart rate, blood pressure and oxygen saturation can be monitored during the procedure. The patient should remain lying on left decubitus position. During the procedure: One of the nurses assists the operation at the patient's head by keeping up the tube while another nurse prepares and cleans the esophagus surface through the operating channel of the endoscope with a 10% acetylcysteine solution to remove mucus. Then, the nurse assists the endoscopist as such: putting a guide wire in place which facilitates the passage of the sizing and ablation balloons, noting the measurements in a specific chart and maintaining the HALO system connections. Ablation will be done twice, by adjacent endoscopic view and in accordance with the BARRX medical console. Nursing care after the procedure consists of maintaining patient monitoring until recovery, administering analgesic drugs if needed and delivering written recommendations which the patient must follow during home care, which include watching for alarming signs, a liquid diet for 24 hours followed by 7 days of soft diet and following a pattern of additional analgesic for a few days in case of chest pain.

Discussion: Among the different treatments of Barrett's esophagus, radiofrequency ablation is technically less complicated and safer for the patient

without significant adverse effects. We have not found, in our environment, literature on nursing care HALO technology, so we have designed a care plan with the aim to alleviating the inconveniences. Nurses play an important role in the implementation of the technique of Radiofrequency Ablation of Barrett's esophagus.

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P-13

Quitting tobacco: the gastroenterology nurses' role

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Introduction: Tobacco use has been cited as the chief avoidable cause of illness and death in the world. Tobacco use exacts a heavy cost to society as to individuals and health care expenditures. Given the health dangers it presents, smoking is known to cause of cancer, heart disease, stroke, complications of pregnancy and chronic obstructive pulmonary disease. Specifically for the nurses in gastroenterology, tobacco leads to cancer of the mouth, nose, throat, larynx, esophagus, pancreas and worsening symptoms of Crohn's disease. Because of nurses' numbers, class status, political capital, and moral authority in society, they are the group of health care providers whose voices are needed urgently at this historical moment to help avert the global tobacco epidemic. No one starts smoking to become addicted to nicotine. It is not known how much nicotine may be consumed before a habit the smoker faces a lifetime of health risks associated with one of the strongest addictions known to humans. The World Health Organization approved the Code of Practice: the policy statement focuses on enhancing healthcare providers' involvement in tobacco control, including a call to address the cessation of healthcare providers themselves. Epidemiological data suggests that more than 70 percent of the 45 million smokers in the United States today report that they want to quit, and approximately 44 percent report that they try to quit each year. Tobacco dependence displays many features of chronic disease.

Aim: To present healthcare providers the tools to initiate the interventions for tobacco users, because effective tobacco dependence treatments are available, every patient who uses tobacco should be offered at least one. Evidence shows that even brief intervention can be effective among many different populations of tobacco users.

Methods: The evidence-based practice places emphasis on the "Five A's" approach (ask, advise, assess, assist and arrange) to tobacco cessation. Every time the patient visits the clinic or hospital, this "fifth vital sign", ask the patient if he/she uses tobacco

and be classified into one of three categories: current user, former, or never. If tobacco dependence is recognized as a chronic disease, healthcare providers will better understand the relapsing nature of the condition and the requirement for ongoing, rather than just acute care. The chronic disease model emphasizes for healthcare providers the importance of continued patient education, counselling, and advice over time. Although most healthcare providers are comfortable in counselling their patients about other chronic diseases such as diabetes, hypertension, or hyperlipidemia, many believe they are less effective in providing counselling to patients who use tobacco. Most smokers who ultimately quit tobacco use experience episodes of relapse on the way to success.

Conclusion: Every patient should be asked if they use tobacco. Tobacco users should be offered an intervention and provide appropriate tobacco dependence treatment. Healthcare institutions need to establish tobacco control policies, enacted as a standard of quality care.

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P-14

Comparison of colonoscopy preparations by efficacy and tolerability

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Introduction: The relative efficacy and tolerability of colonoscopy preparation regimens are unclear.

Aims & Background: To compare the efficacy and tolerability of 3 colonoscopy preparation regimens.

Method: We performed a prospective study of colonoscopy procedures at our institution, and compared the results from colonoscopies randomly prepared with Klean Prep, Picolax or Fleet. Tolerance of procedure / preparation was divided into 3 categories:

1. Whether the patient reported no problems
 2. Some problems but would have the preparation / procedure again.
 3. Would not have the preparation / procedure again.
- Efficacy of preparation was assessed by using a cleanliness score by the operator who was blinded to the preparation regimen:
- A. Solid Stool
 - B. Semi-solid stool that could not be suctioned
 - C. Semi-solid stool that could be suctioned
 - D. Liquid stool
 - E. No / minimal stool.

We also conducted a blinded assessment of taste preference for the 3 preparations.

Statistical analysis was performed with SPSS.

Results: 400 patients (187 male, 69 inpatients) were included. Mean age was 57 years (standard deviation $SD \pm 17.8$) Klean prep was the most poorly-tolerated ($p < 0.01$), but achieved the highest rates of rectal ($p < 0.05$) and right colon ($p < 0.05$) cleanliness

compared to Picolax and Fleet. There was no statistical difference in left colon cleanliness scores between regimens. Of the 95 controls who took part in the taste assessment only, 89.5% preferred Picolax, which was also the most tolerable preparation.

Conclusion: Klean Prep is the best preparation for the bowel cleanliness but is not well tolerated.

P-15

A case report of colorectal cancer patient with severe diarrhea ameliorated by L-glutamine

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Introduction: Many people with cancer take complementary and alternative medicine (CAM) products such as herbs, mushrooms, vitamins, amino acids, and other dietary supplements, hoping to help treat their disease. L-glutamine, an amino acid, is well known to be involved in absorption and immune support in intestine. In particular, recent reports have revealed effectiveness of L-glutamine for anti-cancer agent CPT-11-induced diarrhea in colorectal cancer (CRC) patients. However, there is no data available about L-glutamine usage for refractory diarrhea relating to peritonitis carcinomatosa, which accelerates development of malignant cachexia. We herein report effectiveness of L-glutamine in a terminal CRC patient with severe diarrhea refractory to prescribed obstructants.

Case Report: A 59-year-old woman underwent chemotherapy; FOLFIRI and FOLFOX + bev regimen, from Oct 2007 to Mar 2009 because of liver and lung metastases and peritonitis carcinomatosa after radical resection of caecal cancer. Diarrhea began from Apr 2009, gradually deteriorated, and did not improve despite vigorous administration of loperamide or lactomin. L-glutamine (Aminopure™, Emmaus Medical, CA, USA) 10 g/day was commenced from May 2009 after the informed consent. She recognized amelioration of diarrhea next day. After 3 weeks, symptoms relating to severe diarrhea remarkably improved with no L-glutamine-related adverse events reported; watery stools 10 per day, Grade 3, leg edema (++) vs loose stools 3 per day, Grade 1, leg edema (-).

Conclusion: This case suggests that L-glutamine may be safe and useful to treat severe diarrhea of CRC.

Learning Outcomes: As a consequence of increasing interest in CAM, nurses need to be proactive and open dialogues with patients about their use of CAM in order to address safety issues, and might have a greater role in integrating CAM into the conventional treatment and care, including clinical trials.

P-16

Safety and efficacy of Adalimumab for induction of remission in Crohn's disease in a nurse-led outpatient clinic: Preliminary data from a single centre prospective study

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Introduction: Adalimumab, a subcutaneous, fully human monoclonal antibody against TNF α , is effective in luminal and perianal fistulising Crohn's disease (CD) for induction and maintenance of remission. It demonstrated steroid-sparing properties, the ability to reduce hospitalizations and improve quality of life, with a significant effect on the management of CD. Currently, in the induction period, adalimumab is administered under the supervision of a medical doctor expert in the management of CD with the consequent consumption of healthcare and patient's resources similar to intravenous biological drugs.

Aim/Objective: In several hospitals across Europe anti-TNF α therapies are administered in nurse-led clinics. This modality could be used to spare healthcare resources and reduce costs of anti-TNF α therapy, but there aren't published data available on safety and effectiveness of this administration modality: this study is the first attempt to fill this lack of scientific information, assessing whether a nurse can manage the induction therapy with adalimumab without affecting safety and effectiveness.

Method: Ten consecutive CD patients (7 previously treated with other anti TNF- α drugs) have been referred to the outpatient clinic for the induction protocol with Adalimumab (160/80/40 mg eow). At baseline and 4 weeks after the first drug administration the following scores and tests were evaluated: Harvey Bradshaw Index (HBI), Short Inflammatory Bowel Disease Quality of life (S-IBDQ), Faecal Lactoferrin (LF), C-reactive protein (CRP), adverse drug reactions (ADRs) signs and symptoms (recorded also at every visit to evaluate safety during the follow-up of 6 +/-1 months). ADRs were also recorded for other 12 pts who received adalimumab for other anti-TNF α drugs intolerance or to treat a perianal CD.

Results/Findings: 8/10 (80.0%) patients had a clinical amelioration: 4 achieved remission (HBI<5), 4 had a response (HBI reduced at least 3 points).

The HBI, the S-IBDQ and CRP diminished with statistical significance (graphics 1, 2 and 3). LF diminished to normal levels in 2/7 pts. No ADR were seen during the follow-up. Seven on 22 pts reported minor injection related symptoms.

Conclusion: A specialist nurse-led outpatient clinic proved to be an effective and safe environment for the administration of Adalimumab in CD patients, with preliminary results similar to published clinical trials.

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Learning Outcomes: A specialist nurse-led outpatient clinic proved to be safe for the administration of Adalimumab. It also doesn't affect the efficacy of the therapy.

P-17

Differences in perception and attitude among medical staff towards IBS and IBD – A comparative study

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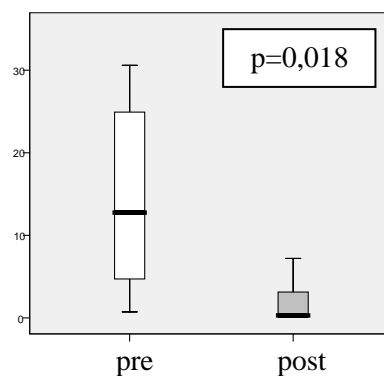
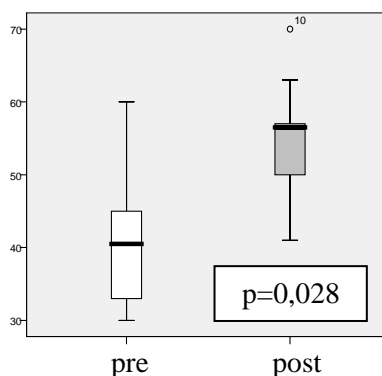
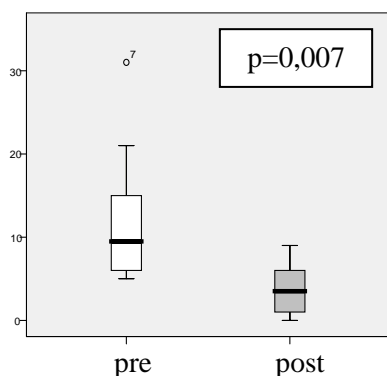
Background: Irritable bowel syndrome (IBS) and inflammatory bowel disease (IBD) are gastrointestinal disorders that share symptoms of altered bowel habits and abdominal pain or discomfort. Available data on the attitude of health care providers towards IBS and IBD are scarce.

Aim: To identify differences in perceptions and attitudes of GI physicians and nurses towards IBS and IBD.

Methods: An anonymous and identical IBS or IBD questionnaire was sent in a random order to 300 GI physicians and nurses nationwide. The questionnaire contained a detailed demographic part and the Illness Perceptions Questionnaire Revised (IPQ-R) that assessed the course, consequences, personal or treatment control and illness coherence.

Results: Of the deliverable questionnaires, 98 were returned completed (33%) and of those 52 assessed IBS and 46 assessed IBD. There were 55 GI physicians and 43 GI nurses that represent the cohort

Graph 1 – HBI, Graph 2 – S-IBDQ, Graph 3 – CRP



for this analysis. As compared to nurses, more physicians stated that the course of both illnesses would not improve with time; however, both groups consider IBD as a chronic disorder with more severe consequences as compared with IBS ($p < 0.05$). In addition, both GI physicians and nurses responded that medical treatment would benefit IBD more than IBS patients and that IBD patients understand better their illness as compared to IBS patients. GI physicians state that IBS patients can control the illness symptoms better than IBD patients, whereas nurses consider both illnesses similar in this aspect.

Conclusions: There are differences in perception and attitude among GI nurses and physicians towards IBS and IBD patients.

P-18

Quality of health and daily activities measured by SF 36 in IBD patients and Lynch gene carriers: Results of a case-control study

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Introduction: A high prevalence of fatigue is observed in patients with Inflammatory Bowel Disease (IBD), even in quiescent disease.

Aim of the study is to examine the quality of life in IBD patients in relation to the presence of fatigue.

Methods: We conducted a case-control study in consecutive patients at our outpatient clinic. Patients previously diagnosed with Crohn's Disease (CD) and Ulcerative Colitis (UC) was eligible. Lynch syndrome gene carriers (Lynch) served as a control group. Demographic variables and clinical history were obtained from the medical records. In IBD patients the disease activity was assessed by the Harvey Bradshaw Index, CRP and serum albumen. Fatigue was measured by using the Piper Fatigue Scale (PFS). Quality of life was measured by using the SF 36 questionnaire, a short-form health survey with 36 questions with a nine-scale profile of physical, social, and mental health domains.

Results: A total of 300 patients were eligible, of whom 222 (117 CD; 55 UC; 50 Lynch) returned the questionnaires. Of these 9 (3CD, 4UC, 2Lynch) were excluded because of missing data. The remaining 213 patients (82M/131F) were analysed. Demographic variables were equal between groups. The mean age was 43.98 years in IBD patients and 45.12 years in Lynch gene carriers.

Summary of results: IBD patients scored significantly ($p < 0.01$) lower on the SF 36 than the control group with a mean (SD) 61.2 (20.4) for CD and 62.7 (19.4) for UC versus 78.8 (14.9) for the control group, respectively. This difference was found throughout all 9 scales. SF 36 scores were not influenced by gender distribution, age, a history of bowel resection, presence of an ileostomy or duration of disease. The Harvey Bradshaw Index was positively correlated with the SF 36 score ($p < 0.01$). A total of 153/165 (92%) IBD patients mentioned their health in general as well or more than well and 108/165 (65%) evaluated their health the same or better than a year ago. Of these 165 IBD patients 105 were suffering from fatigue.

Conclusions: In conclusion we found a high prevalence of an impaired quality of life in patients with IBD compared to Lynch gene carriers. Within the IBD group, quality of life was correlated with disease activity. In contrast to our expectation the fatigue score was not of influence on the quality of health.

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Learning outcomes: IBD has impact on the the quality of life even in quiescent disease. The presence of fatigue is not related to the quality of life in patients with IBD.

P-19

Use of intravenous iron in a gastroenterology day hospital: Indications, dosage and adverse effects

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Introduction: Iron deficiency anaemia is the most common cause of anaemia. WHO estimates that 800 million people present decreased iron deposits or reserves. Aetiologies include inflammatory bowel disease. Treatment involves replacement or improvement of iron deficiency with oral or parenteral supplementation to restore haemoglobin levels. Clinicians often opt for oral therapy for its safety and economic benefit, yet oral treatment is sometimes limited by poor intestinal absorption and digestive intolerance to iron compounds. There are no data in the literature on the use of intravenous iron in gastroenterology day hospitals.

Objective: To determine the indications, dosage and tolerability of intravenous iron in patients treated at a gastroenterology day hospital.

Methods: We retrospectively reviewed the medical records of patients who received intravenous iron in the period between August 2007 and July 2008. Data were collected on indications, dosage, transfusion requirements, adverse effects and evolution of patients.

Results: During the study period, 111 patients (41% female, mean age 63.8 ± 18 years) received intravenous iron. The main causes of anaemia for intravenous iron administration were: portal hypertension gastropathy ($n = 55$), inflammatory bowel disease ($n = 22$) and intestinal angiodysplasia ($n = 12$). Patients received a total of 557 infusions of iron, with an average dose of 1033 mg of iron per patient. No side effects were observed. Despite treatment, 46 patients required transfusion. Patients with liver cirrhosis had to be transfused and had a significantly higher mortality rate than other patients in the group.

Conclusion: Intravenous iron is very often used in day hospitals. The treatment is well tolerated and no adverse effects have been reported. Most intravenous treatments are administered to patients with chronic losses associated with liver cirrhosis, inflammatory

bowel disease or angiodysplasia. Patients with liver cirrhosis had a more acute anaemia, a more severe underlying disease and increased mortality.

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Learning Outcomes:

1. Usual indications of iron intravenous treatment in a gastroenterology day hospital.
2. Advantages of using intravenous iron therapy.

P-20

Literature review on best intervention to improve fatigue in patients with HCV treated with Interferon + Ribavirin

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Introduction: Fatigue is one of the most common adverse effects experienced by patients with HCV in treatment with Interferon + Ribavirin. Fatigue occurs throughout the treatment time and affects almost 80% of patients (Poll 2009).

Fatigue diagnosis in NANDA-I Classification International, has been defined as "sustained and overwhelming feeling of exhaustion and decreased capacity for mental and physical work the usual level". NANDA describes fatigue as 19 defining characteristics, all of which might be present in fatigue related to the usual treatment of Hepatitis C. (NANDA-I 2008). Due to there were no clinical guidelines in our context to identify necessary interventions for improving fatigue in these patients; it was decided to carry out a literature systematic review.

Objective: To analyze publications on nursing interventions to improve fatigue associated with HCV treatment.

Method: Systematic review of scientific publications was made following this process:

1. We formulated the review question: **What is the best nursing intervention to reduce fatigue in patients with HCV who take Interferon + Ribavirin?**
2. We performed an exhaustive literature search using different key word combinations (fatigue, nursing, HCV...) In English, Spanish, French and German. Data base explored were Medline, Cochrane Library, Elsevier, Cuidatge, SciELO.
3. We made Inclusion criteria to select articles:

- Population: patients mono-infected with HCV or HCV co-infected with HIV.
- Main Variables: Interventions to improve fatigue in patients with HCV treatment. Manage of adverse effects in HCV treatment (Interferon and Ribavirin). Nursing role in HCV.
- Article Type (research methods): clinical trials, descriptive studies, opinion articles, literature review.

4. A critical appraisal of articles and data analysis has been organized through a peer reading. CASPe has been passed in those that methodology allowed it.

Results: We included 11 articles: 8 literature review, 2 qualitative researches, 1 expert opinion. Main topics were: adverse effects (4), nursing role in HCV treatment (4), Multidisciplinary Monitoring (2) and (1) treatment for patients co-infected HCV and HIV. According to CEBM, Centre for Evidence-Based Medicine Oxford, there is research evidence level 5 by expert nurses in caring HCV. Most of articles were published in USA. Nursing interventions suggested were: counselling sessions pre-treatment, energy management in every day life, exercising moderately, emotional support of and resiliency promotion.

Discussion /Conclusion: There weren't any high evidence articles. It might be thought as nurses working in this field do not publish or not research in interventions to improve fatigue.

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Learning Outcomes:

1. How to do a Systematic review of scientific publications.
2. Managing fatigue associated with interferon.
3. High evidence research in HCV caring is needed.

P-21

Interferon and fear of needles: A case report

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Introduction: Chronic hepatitis C is a prevalent condition in our environment that affects 1.6-2.6% of the population. Eighty per cent of such patients will develop liver disease, of which 20% will develop cirrhosis and 10% of these will culminate in hepatocellular carcinoma. The current standard treatment is combination therapy with pegylated interferon and ribavirin. Implementation of an education program is of utmost importance as approximately 18% of patients will discontinue therapy due to treatment-related adverse events. In our centre, this educational program is provided by nurses using an education protocol. Some patients experience special needs that require an individualized care plan. The fear of subcutaneous puncture is one of the situations that nurses observe with NANDA-I nursing diagnoses classification (North American Nursing Diagnosis Association International).

Objective: To describe a clinical case and the care plan to manage patient's fear.

Methodology: Descriptive case report submitted according to NANDA-NIC (Nursing interventions classification) NOC (nursing outcomes classification). Subjects: Patient treated with pegylated interferon+ribavirin who has a fear of needles and requires specific nursing interventions. Place of study: Digestive Day Hospital, Corporació Sanitària Parc Taulí.

Results: Case report: Female, 28, HCV-positive, genotype 3, treated with interferon alpha 2a for 6 months. She refers inability to self-inject on two occasions and seeks help from a relative or the primary health centre. Diagnosis: "Fear related to the phobic stimulus (needle therapy) manifested by verbal expression, increased transpiration ". Nursing staff developed a care plan to solve this problem. Outcomes to be achieved (NOC): Fear Self-control, Self-care: parenteral medication, Client satisfaction: teaching. Planned nursing interventions: "Anxiety reduction", "Coping enhancement", "Security Enhancement". The patient achieved self-injection and completed treatment successfully.

Conclusions: Fear of needles is a problem related to the treatment of chronic hepatitis C with Interferon-pegylated. We promote the autonomy of patients to achieve self-injection and co-responsibility in their treatment. Nursing staff could develop plans to help patients overcome fear of needles.

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Learning outcomes:

Encourage the use of nursing methodology NANDA-NIC-NOC and provide specific solutions to manage complex situations in the context of patient education on treatment with interferon.

P-22

The importance of cirrhosis patients' oral health and nurses role in assessing and maintaining it

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Introduction: Hospitalized cirrhosis patients' are in a greater risk for poor oral health as many are malnourished, dehydrated, immunosuppressed, have a smoking or alcohol history, and are unable to mechanically remove dental plaque. Poor oral hygiene cause the patient much misery and discomfort and may contribute to more serious complications such as gingivitis, dental caries and has been linked to chest infections and pneumonia, which causes of morbidity in cirrhosis patients. Nurses should be aware of risk factors associated with poor oral health and be able to assess and help patients maintain oral hygiene. But

research has revealed gaps in knowledge of oral care procedures by nurses. In particular, a lack of assessment and documentation was highlighted (1).

Aim: The purpose of the study was to make a review of the evidence and best practise for oral hygiene, looking at its effects on patient health and nutrition, and the risk factors associated with poor oral hygiene. Furthermore we wanted to explore the evidence for appropriate assessment of oral health and provide guidance for effective oral care.

Materials And Methods: We performed a systematic literature review using a two-step approach (keyword electronic data search, supplemented with secondary search of cited references). The systematic literature review was retrieved in PubMed, Cinahl, SweMed and EMBASE. All selected articles were critically reviewed and systematically categorized.

Result: No materials on cirrhosis patients' oral health were found. However, material based upon evidence emerging from other specialties, for example oncology, was found and used in the literature review. It showed that oral hygiene is undervalued in terms of its effects on patients' health and nutrition. Effective oral care reduces infection and promotes health.

Research suggested that oral hygiene care strategies to prevent oral diseases and conditions were found to be effective in preventing oral diseases, and thus are relevant for use in patients with cirrhosis. Evidence on the use of assessment tools by nurses to evaluate patients oral health showed the tool has become an important part of the daily nursing and has improved the efficiency of the choice between the different opportunities available in the care and treatment. Furthermore showed the evidence that a successful assessment requires appropriate staff training (1,2).

Conclusion: These literature review findings supported the use of oral assessment tools by staff. The assessment tool allows nurses to develop treatment plan and greatly improve the odds of achieving positive clinical outcomes. Although much of the research is limited by small sample size, age and faults in methodology, it is the current evidence available. This illustrates the need for more research into methods of providing oral care for cirrhosis patients, in order to establish best oral care practices for this particular patient population.

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- (2) O'Reilly Marianne: Oral care of the critically ill: a review of the literature and guidance for practice. *Australian Critical Care* 2003; 16(3): 101-110.

Learning Outcomes:

Oral care should be given higher priority by the nurses. Oral complication such as infections and nutritional impairment causes morbidity and death in cirrhosis patients. A validated assessment tool for oral care is needed in the nursing of cirrhosis patients.

P-23

EMPOWERING CELIAC DISEASE PATIENTS THROUGH EDUCATION

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Introduction: Successful management of celiac disease (CD) requires a team approach, including the person with CD and his or her family and health care team. Patients need a lot of knowledge about biophysiological, functional, experiential, ethical, social and financial dimensions. Patient education is a cornerstone of CD's patient empowerment, because knowledge enables them to manage their changed life situation.

The aim of this 2008 began project was to develop the outpatient nursing care in Turku University Hospital/Finland by systematizing the CD patients' education. In the project the empowering patient education and concept map were implemented in clinical nursing practice. The main idea of the empowering education was designed to help patients manage their disease and support them live active life with their chronic conditions. Need of information is individual. Using concept map method in education the patient is able to get a general impression of the issue and the type of information they need. Concept map allows patient to concentrate on issues that are current without neglecting the holistic influence CD has on life.

Aim and methods: The aim of this study was to describe the CD patients' and CD nurses' perceptions of empowering education during the outpatient visit. The data consisted of the feedback written by patients (N = 6) after education situations. In addition, the data was collected by questionnaire (N = 37) filled by nurses. All the data were analyzed through the methods of content analysis. The data of questionnaires was also quantified and described with frequencies.

Results: The CD patients were satisfied with the education given by the nurses. According to the patients' opinion, the nurse-led outpatient visits should be available directly after getting diagnosed. Biophysiological and functional knowledge was/were emphasized in the patient education situations by both the patients' and the nurses'. The experiential knowledge such as feelings was seldom mentioned. However, the patients waited for support to handle their feelings. In addition, the patients waited to get the information about peer support. The concept map helped them to get a general impression on the issue and to make the questions concerning holistic effects of the CD in their lives.

Conclusion: The CD patients expect biophysiological and functional information to know what celiac disease is and how it influences their life. However, more attention should be paid to the experiential dimension in the education of CD patients.

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Learning outcomes:

It is possible by nursing means to support and promote CD patients' empowerment. The concept map works well as an education tool in CD patient education.

P-24

Endoscope reprocessing: current situation in Italy

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Background: The most updated guideline on endoscope reprocessing by the Italian National Association of Endoscopy Nurses ANOTE/ANIGEA was released in 1998. Despite efforts made during the years in order to spread its knowledge among associates, compliance to recommendations appears to be non homogeneous across the national territory. During the yearly National Congress hold on November 2009 in Assisi, a questionnaire on endoscope reprocessing was administered to all participants to get a picture of the current situation in Italy.

Aims: Our aims were to obtain an overview of the management of reprocessing of endoscopes and accessories in Italy, a participants response rate >75%, and findings which could justify or not justify a review of the current ANOTE/ANIGEA guideline on endoscope reprocessing.

Method: A questionnaire on the management of endoscope reprocessing was distributed to all participants on the first day of the Congress. All compiled forms were processed and results were showed on the following day during the plenary session. The questionnaire was based on 24 questions:

- tools and attitudes in the Endoscopy Units (12 questions)
- knowledge of guideline recommendations (11 questions)
- regional location of the Endoscopy Units of the participants (1 question).

Results: Out of 154 questionnaires distributed among participants, 129 were compiled and returned (response rate 83,8 %). The returned questionnaires were representative of units located in three macro-areas: North (52%), Centre (24%) and South (24%) of Italy. Local protocols are based on the ANOTE/ANIGEA guideline in 57,7% of the units. The majority of the units use an automated disinfection system (93,8%). Peracetic acid is the most used disinfectant (57,4%) followed by glutaraldehyde and electrolyzed acid water (13,9% and 10,8% respectively); 15% of the units use two different disinfectants. A traceability system is still not available in 19,7% of the units. Although not recommended by the ANOTE/ANIGEA guideline microbiological tests on

endoscopes only, water only or both instruments and water are performed respectively by 36,4%, 10,8% and 31,8% of the facilities. Frequency may vary from 5 to 365 days, however 22,4% are performed monthly and 36,2% quarterly.

With respect to drying and storage the following findings were obtained:

- 57,5% know that the guideline recommends a thorough drying of the endoscope before storage
- 83,6% agree that manual drying is recommended even after reprocessing in an automated system
- 35,5% are aware that manual drying should be performed with filtered air
- 45,7% know that flushing with alcohol is recommended in the Italian guideline
- endoscopes are mainly stored vertically in normal cupboards; ventilated cabinets are used in 11,2% of the units while only a few use a drying cabinet (0,8%)
- maximum storage time may vary from a minimum of 7 hours to a maximum of 194 hours; however 31,7% of the units reprocess endoscopes after 12 hours and 28,3% after 48 hours storage.

Conclusions: Although these findings represent a partial view of the national situation some considerations can be drawn:

- a satisfactory knowledge of the guideline is still not realized especially with respect to the final steps of the process (drying, storage)
- all units should be aware of the importance of a traceability system for the whole process
- microbiological tests are performed by the majority of the units; however a higher uniformity of protocols would be desirable.

Moreover it is time to set up a working group for the update of the national guideline on reprocessing and to implement educational programs able to spread knowledge and to improve the professional profile of all endoscopy nurses.

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P-25

TWO CENTRE EVALUTATION OF THE SAME MODEL DRYING CABINET USED IN ENDOSCOPY

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Introduction: The introduction of drying cabinets has meant a change in current practice for nurses working in the area of endoscopy. The ESGE-ESGENA Guideline Committee are currently writing a technical statement on the Drying and Storage of flexible Endoscopes .(1) and A survey was undertaken of the situation in Europe and presented in London 2009 by Beilenhoff.(2). The current topical issue of drying cabinets led to, a study from two different centres to evaluate the same model drying cabinet.

Aim: To discuss how two different centres evaluated the same drying cabinets

Method: An explanation of the study was given to the staff and asked if they were happy to take part. A questionnaire was designed with open and closed questions for all grades of the endoscopy team to complete. A series of nine questions were designed to cover the relevant topics of using a drying cabinet. To explore different protocols, training and problems encountered. Ten questionnaires were completed in both centres by the teams. The study composed of a total of twenty completed questionnaires. Both managers from each centre collated data.

Results:One centre had only qualified nurses working in the department. The other centre had a mixture of qualified and unqualified staff working in the area. The average length of time working in the area from 1-5 years was 5 in centre 1 and 3 in centre 2 5-10years 0 in centre 1 and 2 in centre 2 10 years and over 5 in centre 1 and 5 in centre 2. Both centres had different types of scopes from different manufactures, with the staff requiring a scope ready for use every time – safe for patient use. Each centre had two drying cabinets from the same manufacturer and had purchased them six months previous to this study. Training seemed to be an issue ranging from 4 hours to two full days from the manufacturers, but felt this could have been more or ongoing. Uncertainty in the testing of the cabinet.

Conclusion: This study has identified that a drying cabinet is a valuable part of equipment in both centres. It was felt that both members of the teams had embraced the change in practice and could see the value of the drying cabinet in the endoscopy setting. The use of a drying cabinet ensures you have a scope every time and frees up nurses for the decontamination area. The list starts on time and is valuable for out of hours and emergency endoscopy. This study has brought together two units in different countries.

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Learning Outcome: Sharing of knowledge and change in practice through a two centre study.

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