Abstract Book Index Page

17th ESGENA Conference

hosted by

the **German Society for Endoscopy Nurses and Assistants (DEGEA)**

and the **German Nursing Association (DBfK)**,

In Conjunction with the 21st UEG Week

12-14 October 2013

1. Welcome Addresses

Dear colleagues,

On behalf of ESGENA, the German Society for Endoscopy Nurses and Assistants (DEGEA) and the German Nursing Association (DBfK), it is our great pleasure to invite you the 17th ESGENA Conference, which will be held during the 21st United European Gastroenterology Week from October 12-14, 2013 in Berlin, Germany.

Following conferences in 1995 and 2006, this will be the third time that the medical and nursing community of Gastroenterology and Endoscopy meet in Berlin. **This year the Governing Mayor of Berlin, Klaus Wowereit, takes over the patronage of the ESGENA Congress.**

Like the city of Berlin, both UEG and ESGENA have changed significantly by increasing their activities and hosting one of the premier meetings within the field. The ESGENA conference is not only an opportunity to meet colleagues from throughout Europe, but also from North and South America, Africa, Asia and Australia. The exchange with nurses from all over the world combined with the opportunity to attend the medical programme of UEG Week makes the ESGENA conference an exceptional educational event.

The three day ESGENA conference will include state-of-the-art lectures, free papers & posters, lunch sessions, several workshops with hands-on training and live transmissions covering current topics in gastroenterology and endoscopy. The German hosts, DBfK and DEGEA, both members of ESGENA, combine the political work of a nursing association with specialised activities in endoscopy, and this interesting combination will also be reflected in the programme.

We hope to welcome you to the 17th ESGENA Conference in October 2013 in Berlin, Germany.

Michael Ortmann	**Ulrike Beilenhoff**	**Christel Bienstein**
President of ESGENA	President of DEGEA	President of DBfK

Message from the Governing Mayor of Berlin

Dear ladies and gentlemen,

I am delighted to welcome you to Germany's capital city for ESGENA's 17th European conference. ESGENA was founded in Berlin in 1995, and this year's conference is bringing your international professional organization back to the city of its birth for what is now the third time. There's a saying in German that "all good things come in threes"; I hope that will turn out to be true here, too, and that your third meeting in our city will lead to a lot of new insights and give new momentum to the discipline of gastroenterology and endoscopy. Welcome to Berlin!

When specialists from Europe and overseas talk about their work, the focus is on exchanging experience and sharing the latest findings and insights. Although your area of medical science is relatively new, gastroenterology and endoscopy have triggered a revolution, so to speak, in medicine. Conditions that once required major surgery, which was traumatic for patients and their families and stressful for nurses, doctors, and medical facilities, can now be examined, operated on, and cured efficiently and effectively with your help.

That position makes enormous demands on you, who are often the endoscopist's right hand man or woman. You need to be constantly up-to-date on the latest research, be familiar with both endoscopy and anesthesia, and be ready to listen to and comfort patients and their familiies

You, your institution, your patients, and your home countries benefit enormously from the exchange of ideas and experience on all of these issues, as well as on future developments, in an international forum. I wish you a productive and successful conference and hope very much that you will also have the opportunity to get to know our city a little better. Taking advantage of Berlin's many cultural and sightseeing highlights may well give you fresh inspiration as you return home to your practices and hospitals.

Klaus Wowereit
Governing Mayor of Berlin

2. General Information

2.1. Contact Addresses

ESGENA Scientific Secretariat

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Society website: www.esgena.org

ESGENA Governing Board

• President	Michael Ortmann	Basle, Switzerland
• Vice President	Jayne Tillett,	Bristol, UK
• Secretary	Jadranka Brljak	Zagreb, Croatia
• Treasurer	Marjon de Pater	Amsterdam, The Netherlands
• Councillors :	Enriqueta Hernandez-Soto	Barcelona, Spain
	Anita Jorgensen	Oslo, Norway
	Stanka Popovic	Ljubljana, Slovenia

Society Website : www.esgena.org

DEGEA Governing Board

• President	Ulrike Beilenhoff	Ulm, Germany
• Vice president	Ute Pfeifer	Düsseldorf, Germany
• Secretary	Silvia Maeting	Berlin, Germany
• Treasurer	Kornelia Wietfeld	Marl, Germany

Society Website: www.degea.de

DBfK Governing Board

• President	Christel Bienstein	Recklinghausen, Germany
• Vice president	Gertrud Stöcker	Grevenbroich, Germany
	Stefan Werner	Böblingen, Germany
• CEO	Franz Wagner	Berlin, Germany

Society Website: www.dbfk.de

2.2. Useful Conference Information

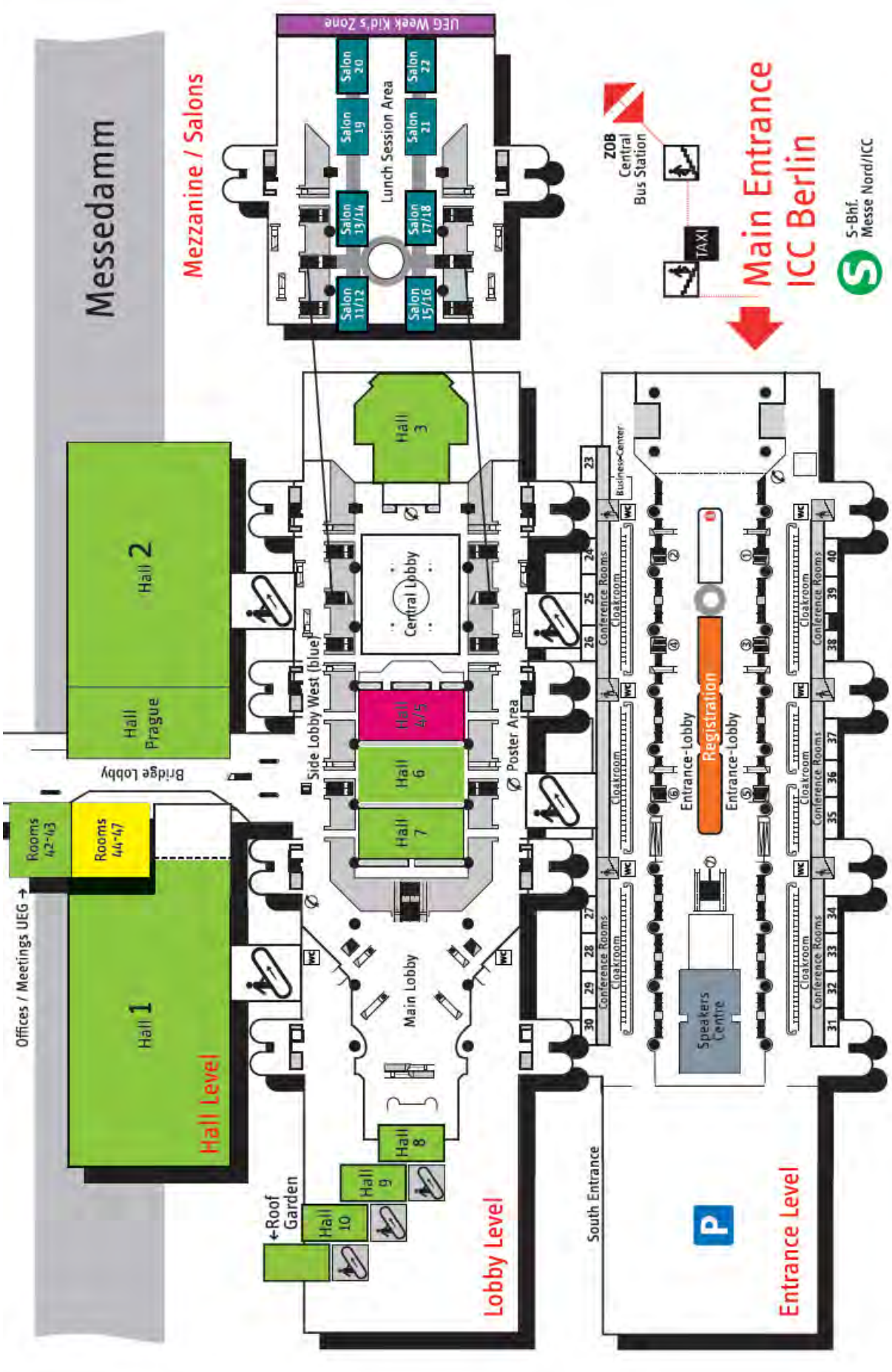
Attendance Certificates	Attendance Certificates will be given to delegates who hand in a **completed evaluation form** at end of the sessions on Sunday afternoon at the ESGENA membership desk in the Main Lobby (directly at the ESGENA lecture halls) or on Monday morning at the UEGW registration desks. Evaluation forms are on the last page of this Abstract Book (see yellow page).
Cloakroom	A cloakroom can be used free of charge from Saturday, October 12 through Wednesday, October 16, 2013 at the entrance of the conference. Participants can also store their luggage here.
Coffee & Lunch	Coffee and Lunches will be served for all ESGENA registered participants from Saturday to Monday in the catering areas.
Conference Language	The official language of the ESGENA Conference is English. Two workshops on Saturday will be held in German. Simultaneous translation (English-German) will be available during the scientific lectures in two parallel halls on Sunday.
Congress Registration Desk	The congress counter will be located in the Foyer of the ICC Opening hours: Friday, Oct 11, 2013, 14:00 - 18:00 Saturday, Oct 12, 2013, 07:30 - 18:00 Sunday, Oct 13, 2013, 07:30 - 18:00 Monday, Oct 14, 2013, 07:30 - 18:00 Tuesday, Oct 15, 2013, 07:30 - 18:00 Wednesday, Oct 16, 2013, 07:00 - 16:00
ESGENA Annual General Meeting	ESGENA Annual General Meeting will be held on Saturday, October 12, 2013 from 11.00-12.30 hours in hall 7(Access for ESGENA members only)
ESGENA Hands-on-Training	Hands-on-training on bio simulators will be offered on Saturday and Sunday in the ESGE Learning Area (Hall14.1.). See Workshops 5,10,11,12 in the ESGENA detailed programme. Please note that there are only a limited number of tickets available in order to ensure small training groups at each station. Tickets for nurses will be available at the entrance of the ESGE Learning Area on a first-come-first-served basis.
ESGENA Lunch Sessions	3 parallel lunch sessions on Sunday, October 13, 2013 will combine state-of-the-art-lectures and hands-on-training.
ESGENA Payments	Membership payments (up to Euro 50) will be accepted in cash (Euro) at the ESGENA membership desk on Saturday afternoon and Sunday only
ESGENA Poster Sessions	ESGENA posters will be displayed in the main lobby (on lobby level). Posters should be mounted on the assigned board on Saturday 14.00 hours and removed before Sunday 18.00 hours. ESGENA will have two poster sessions on Sunday, October 13, 2013: • From 12.30-14.30 hours • From 16.30-17.00 hours Poster authors will receive material to fix the posters at the ESGENA membership desk.
ESGENA Welcome Reception	Attendance at the Welcome Reception is included in the ESGENA registration. See page: 10 Ticket: Access only with badges of ESGENA Conference.
Exhibition	The UEG Week will be accompanied by a major technical exhibition. Opening Hours • Monday October 14, 2013 09.00 – 17.00 h • Tuesday October 15, 2013 09.00 – 17.00 h • Wednesday October 16, 2013 09.00 – 14.00 h

Internet Centre and WiFi	The Internet Centre with several terminals is located in exhibition hall 16. Opening hours are • 09:00 – 17:00 h (Mon – Tue, Oct 14 – 15) and • 09:00 – 14:00 h (Wed, Oct 16). Additionally, WiFi areas in the foyers and exhibition halls allow easy access to the Internet. Please select the WiFi network: **ueg2013** and enter the password: **uegweek2013**.
Membership Desks of • **ESGENA** • **DBfK** • **DEGEA** • **SIGNEA**	The membership desks will be situated in front of hall 6 and 7 • On Saturday, October 12, 2013 12.00-17.00 h • On Sunday October 13, 2013 08:30-15:30 h
Programme Changes	The organizers cannot assume liability for any changes to the programme, due to external or unforeseen circumstances.
Public Transport Pass	Upon arrival at the congress venue, ESGENA delegates receive a 3-day public transportation ticket with their congress material. The pass entitles the holder to travel on all public transport facilities within the Berlin city boundaries during the entire period of the ESGENA congress.
Speakers Centre	Information for speakers: • Please come to the Speakers Centre the day before or at least three hours prior to your lecture. • Highly experienced technicians will capture your PowerPoint presentation and store it on the central congress server. • At the Speakers Centre you can check and rehearse your PowerPoint presentation. Opening hours: • Friday October 11, 2013 14.00 h – 18.00 h • Saturday October 12, 2013 07.30 h – 18.00 h • Sunday October 13, 2013 07.30 h – 18.00 h • Monday October 14, 2013 07.00 h – 18.00 h • Tuesday October 15, 2013 07.00 h – 18.00 h • Wednesday October 16, 2013 07.00 h – 14.00 h In the lecture room • Your PowerPoint presentation will be made available in your lecture room via a computer network. There will be no possibility to connect your personal notebook in the lecture room. • The computer presenting your presentation will be operated by a technician. From the lectern you will be able to remote control your PowerPoint presentation. A laser-pointer will be available. • Neither overhead projector nor slide projector will be available in the lecture rooms; double projection will not be provided. No changes in your presentation can be made in the lecture room
UEG Week Post Graduate Course	Nurses are welcome to attend the UEG Week post graduate course on Saturday to Sunday at no extra charge.
UEG Week Core Programme	Nurses are welcome to attend the medical lectures of the UEG Week core programme at no extra charge. Nurses who want to attend the UEG Week on Tuesday and Wednesday, October 15-16, 2013, have to contact the conference registration desk on Tuesday and Wednesday to get a new badge (free of charge).

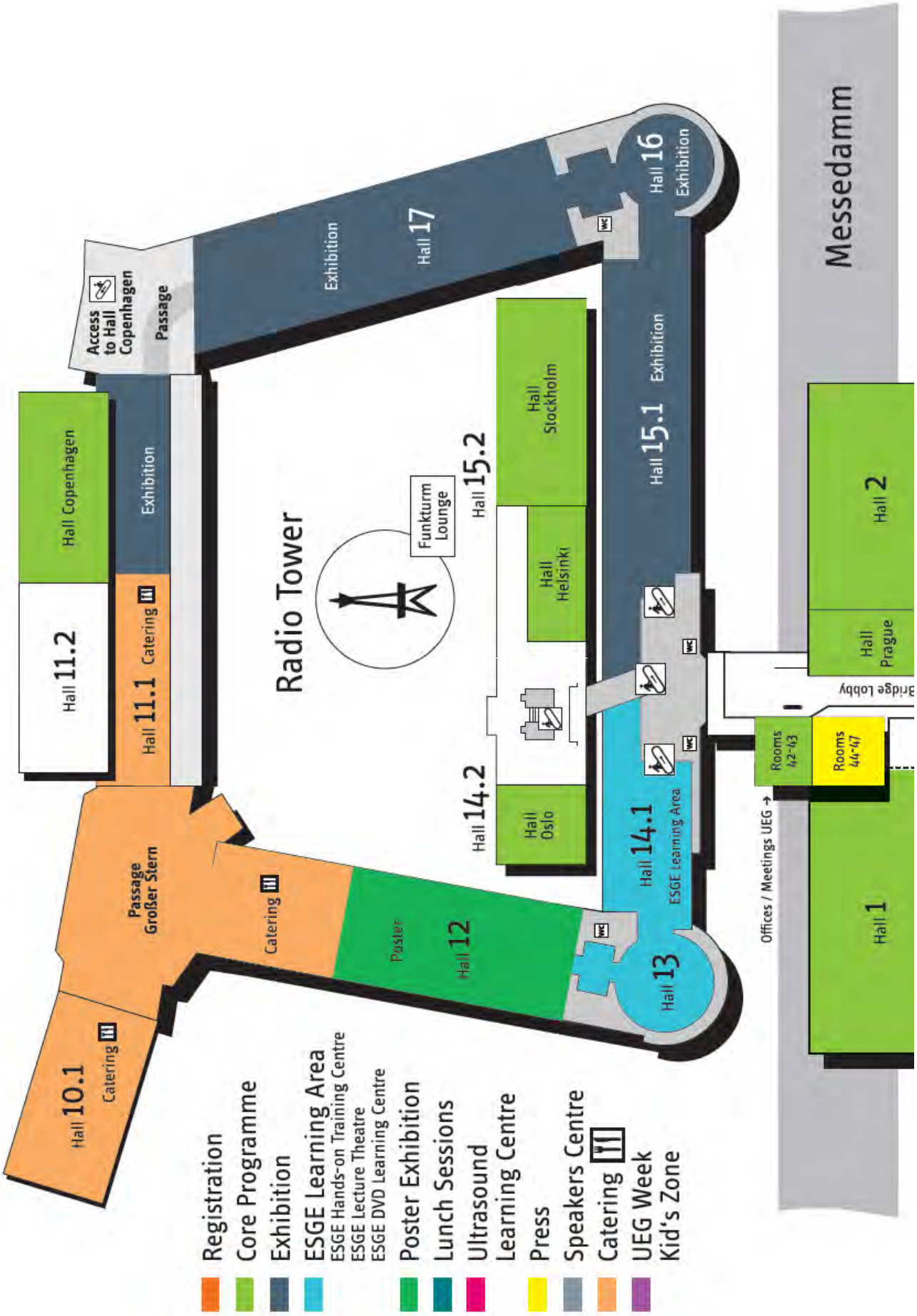
2.3. Useful Information about Berlin

About Berlin	History-charged Berlin, host city of the 21st UEG Week, is the capital of Germany and known for its cross-cultural and creative coexistence. Berlin has a population of about 3.5 million from 187 different nations on an area of 892 sqkm and is the biggest city in Germany and Middle Europe. Many world famous restaurants, hotels and museums are located in Berlin and the city attracts 9.8 million tourists every year.
Bank	The usual opening times for banks are Monday to Friday from 8 am to 12 noon and from 2 pm to 4 pm.
Climate	In October the average temperatures range from 5 to 13° C during the day in Berlin.
Currency	Payments will be accepted in EURO (EUR).At most banks as well as at exchange bureaus in the city currency can be exchanged. Credit cards are widely accepted.
Electricity	The voltage in Germany is 230 Volts, 50 Hertz. Sockets meet European regulations and use the two-round pin system
Prayer	The Prayer Room is located in Room 31a on the Gallery Level East of the ICC Berlin.
Sightseeing in Berlin	Few cities have seen as many changes over recent years as Berlin. The two separate entities that existed before the Wall came down have become one again. There's hardly a trace left of the former east-west division. The new architecture on Potsdamer Platz and in the government quarter forms a fascinating contrast to the late 19th century buildings of Charlottenburg. One minute you're on an elegant boulevard, the next you're in one of the city's more alternative neighbourhoods. But the city is not only renowned for its architectural monuments; it also has museums, green oases and nightlife galore. A special registration desk for sightseeing is located in the registration area.
Shopping hours	According to the new shop opening times law all Berlin shops can theoretically offer their goods round the clock from Monday to Saturday. Since its introduction, in practice almost all shops in the large shopping streets are open from 10 am to 8 pm, partly also longer on certain weekends. Apart from a few exceptions (airports and railway stations) all shops are closed on Sundays. A limited range of food is available then at fuel stations and kiosks.
Telephone	Country code: +49. Outgoing international code: 00.
Time Zone	The time zone in Germany is Greenwich Mean Time (GMT) +1 hour in winter and +2 hours in summer.

2.4. Floor Plan 1 of ICC



2.4. Floor Plan 2 of ICC



2.5. Official Conference Opening & Welcome Reception

ESGENA Welcome Reception

The **German Society for Endoscopy Nurses and Assistants (DEGEA)** and the **German Nursing Association (DBfK)**

invite the ESGENA conference participants

to the

Official Welcome Reception
&
Opening of the ESGENA Conference

On Saturday, October 12, 2013
From 19.30 – 22.30 hours

at the "Rotes Rathaus"
Rathausstraße 15
10178 Berlin

You are invited to a most enjoyable, informal evening with the opportunity to meet colleagues and friends from all over Europe and overseas.

Attendance at the Welcome Reception is included in the registration Ticket: Access only with badges of the ESGENA Conference

2.6. ESGENA Free Paper & Poster Prize

Best Free Paper Prize is sponsored by

PENTAX

Accepted Abstracts receive Free Registration at the ESGENA Conference

PRIZES to be won:

The Best Free Paper – Oral Presentation and the Best Poster Presentation win Free Registrations and 2 nights' Free Accommodation
at the next ESGENA Conference, in October 2014 in Vienna, Austria

The best Free Paper and best Poster will be announced at the ESGENA Plenary Session on Monday, 14 October 2013

For details how to submit an abstract
for the next ESGENA conference 2014 in Vienna
please find the Call for Abstract included in this Book and
on the ESGENA Website www.ESGENA.org

3. ESGENA – Programme Overview

SATURDAY, 12 October 2013					
Lecture Halls	**Roof Garden**	**Hall 7**	**Hall 6**	**Salon 11/12**	**ESGE Learning Area**
English	**English**	**English**	**English**	**German**	**English**
08.30-10.30 UEG Week Post Graduate Training Programme					
10.30-11.00 Coffee Break					
11.00-13.00 UEG Week Post Graduate Training Programme		11.00-12.30 ESGENA General Assembly			
13.00-14.00 Lunch Break					
14.00-16.00 UEG Week Post Graduate Training Programme With Live Demonstrations	14.00-15.30 Workshop 1 **Sample size & quality (Biopsy & FNA)** Organised by Boston Scientific	14.00-15.30 Workshop 2 **Challenges of GI bleeding** Organised by Olympus Europe	14.00-15.30 Workshop 3 **Functional diagnostic tests for GERD patients** Organised by Given Imaging	14.00-15.30 Workshop 4 **Management & quality improvements** Organised by German societies	14.00-15.30 Workshop 5 Hands-on training on bio simulators Upper GI Bleeding ERCP Colonoscopy
Coffee Break					
	16.00-17.30 Workshop 6 **Surveying the colon: advances in diminutive polyp removal** Organised by US Endoscopy	16.00-17.30 Workshop 7 **Endoscope hygiene - the importance of cleaning** Organised by Olympus Europe	16.00-17.30 Workshop 8 **New development in EUS guided FNA.** Organised by FUJIFILM Europe	16.00-17.30 Workshop 9 **Patient care in endoscopy** Organised by German societies	16.00-17.30 Workshop 10 Hands-on training on bio simulators Upper GI Bleeding ERCP Colonoscopy
	19.30 -22.30 **ESGENA- Welcome Reception** At the “Rotes Rathaus”				

SUNDAY 13 October 2013				
English /German Simultaneous Translation	**English /German Simultaneous Translation**	**English**	**English**	**English**
Hall 7	**Roof Garden**	**Salon 11/12**	**Poster Area**	**ESGE Learning Area**
09.00-10.30 Session 1 **Free paper session**	09.00-10.30 Session 2 **Complication management**	----		
10:30 – 11.00 Coffee	10:30 – 11.00 Coffee		---	----
11.00-12.30 Session 3 **Free paper session**	11.00-12.30 Session 4 **Bronchoscopy**	----	----	11.00-12.30 Workshop 11 **Hands-on training on bio simulators** Upper GI Bleeding ERCP
13.00-14.00 Lunch	13.00-14.00 Lunch	----	12.30-14.30 Posterround I	----
13.30-15.00 Lunch Session 1 **New techniques & developments**	13.30-15.00 Lunch Session 2: **Hygiene & infection control**	13.30-15.00 Lunch Session 3: **Bronchoscopy**		14.00-15.30 Workshop 12 **Hands-on training on bio simulators** ERCP Colonoscopy
15.00-16.30 Session 5 **Updates in Gastroenterology**	15.00-16.30 Session 6 **Education**	----	----	
16.30-17.00 Coffee	16.30-17.00 Coffee		16.30-17.00 Posterround II	-----
17.00-18.30 Session 7 **Management**	17.00-18.30 Session 8 **Quality assurance**	----	----	

MONDAY 14 October 2013
Hall 3
English
8:30-10:30 **New techniques and developments in Endoscopy** **Presentation by major sponsors** **Scientific Lectures** **Best free paper and best poster award** **Invitation to next conferences**
10:30 – 11:00 *Coffee*
Exhibition ESGE learning area UEG Week sessions
12:30-14:00 *Lunch*
Exhibition ESGE learning area UEG Week sessions
15:30-16:00 *Coffee*
Exhibition ESGE learning area UEG Week sessions

ESGENA General Assembly

On Saturday, 12 October 2013
From 11.00-12.30 h
In Hall 7

(Members only)

4. ESGENA - Detailed Programme

4.1 ESGENA-Workshops on 12 October 2013

Workshop 1: Sample size & quality (FNA & biopsy): Endoscopy and pathology perspective

This workshop is organised by **Boston Scientific**

Workshop language is English

14:00-15:30 **Roof Garden**

Chairs: Laurent Palazzo, France
Monique Fabre, France

Aims & Content
The clinical workshop aims to educate nurses on the importance of sample size and quality in EUS FNA and biopsy procedures and the impact on clinical diagnoses and patient treatment algorithms. Nurses will increase their knowledge on the different sample preparation techniques and the stages of sample processing in the pathology lab.

Description
- Presentation from physician's perspective
- Presentation from pathologist's perspective
- Hands-on training session

Workshop 2: Challenges of GI bleeding

This workshop is organised by **Olympus Europa Holding GmbH**

Workshop language is English

14:00-15:30 **Hall 7**

Chairs: Katja Wirths, Germany,
Stephen Bordon, Germany
Franziska Buss, Germany

Aim & Content
Being both confident and knowledgeable during a GI bleed is crucial. Good training is also a key factor to safely manage the bleeding. This workshop aims to increase your knowledge of the different types of GI bleeding, as well as provide hands-on training.
- Presentation on various GI bleeds, the realities and how to cope with them (30 mins)
- Hands-on training covering injection, clipping, ligation and thermal therapy (60mins)
- Two language areas for the hands-on training (German and English)

Workshop 3: Functional diagnostic tests for GERD patients

This workshop is organised by **Given Imaging**

Workshop language is English

14:00-15:30 **Hall 6**

Chairs: Jutta Keller, Germany
Sven Scherzberg, Germany

Background
Multiple GI functional diagnostic tests are available for patients suspected of GERD. In most countries specialized nurses are highly involved in performing technically good tests for this patient group, and in some countries nurses also participate in data analysis. In this session we present the newest technologies and discuss options for work distribution between nurse and doctor in functional diagnostics.

Aims & Content
This session will focus on the role of a nurse in GI functional diagnostic tests and will:

- give an overview of tests available for patients suspected of GERD
- demonstrate how to perform a technically good esophageal High Resolution Manometry (HRM) procedure
- demonstrate ambulatory reflux monitoring with pH-impedance catheters and wireless BRAVO capsule
- show importance of instructing and cooperating with the patient for useful results

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Workshop 4: Management & quality improvements = Management und Qualitätsverbesserung

This workshop is organised by **DEGEA** and **DBfK**

Workshop language is German

14:00-15:30 **Salon 11/12**

Chairs Ute Pfeifer, Germany
Sigrun Kauertz, Germany

The Workshop combines lectures and discussions

14:00-14:30 Patient safety in Endoscopy
= Stellenwert der Patientensicherheit in der Endoskopie
Monika Engelke, Germany

14:30-15:00 Team meetings with debriefing – an instrument of quality improvement
= Abteilungsbesprechung mit Debriefing als Instrumente der Qualitätsverbesserung
Hans Seifert, Germany

15:00-15:30 Perspectives for staff working in Endoscopy
= Perspektiven für Endoskopiepersonal (Erweiterung der Aufgaben, Veränderung des Berufsbildes, Delegation Akademisierung)
Christiane Neumann, United Kingdom

Workshop 5: Hands-on training on bio simulators

This workshop is organised by **ESGENA**

Workshop language is English

14:00-15:30 **ESGE Learning Area in Hall 14.1**.

Chairs: Michael Ortmann, Switzerland
Eric Pflimlin, Switzerland

Aims & Content
Hands-on training on bio simulators (pig models) under the supervision of highly experienced tutors:
Participants will have the opportunity to perform endoscopic techniques on the following topics:

- OGD with Injection techniques, ligation, clipping, APC
- Colonoscopy with Polypectomy, EMR and APC
- ERCP with stone extraction and stenting

As participation will be limited, registration will be on a first-come-first-served basis.
Tickets will be available onsite only – at the entrance of the ESGE Learning Area.

Workshop 6: Surveying the colon: Advances in diminutive polyp removal

This workshop is organised by **US Endoscopy**

Workshop language is English

16:00-17:30 **Roof Garden**

Chairs: Robyn Brown, Australia

Aims & Content:
Colorectal cancer is the second leading cause of death in men and women worldwide. Proper screening and removal of diminutive polyps is critical. It is important to understand the prevalence of diminutive polyps during colonoscopy, the importance of detecting and removing these growths early, and the various polypectomy techniques.

This presentation will briefly introduce you to the following topics:

- Background and types of polyps
- Colorectal cancer
- Polypectomy and polyp resection techniques, including cold snaring
- Submucosal injection therapy
- Polyp removal
- Bleed management

Workshop 7: Endoscope hygiene - the importance of cleaning

This workshop is organised by **Olympus Europa Holding GmbH**

Workshop language is English

16:00-17:30 **Hall 7**

Chair: Holger Biering, Germany

Aims & Content
Efficient cleaning is a pre-requisite for successful endoscope reprocessing - regardless of whether if it takes place manually or inside automated endoscope washer disinfectors. This workshop will present and discuss different aspects of cleaning, with a close look at the national requirements and manufacturer's instructions. This workshop will give:

- a view into study data about manual pre-cleaning aspects
- show importance of cleaning and cleaning efficacy during automated endoscope reprocessing
- practical view about pre-cleaning and cleaning in the endoscopy department.

Today endoscope reprocessing is focussing on automated cleaning and disinfection procedures. However, the pre-cleaning right after use of endoscopes is still an essential step within the workflow of endoscopes from patient to patient

Presentations:

Importance of manual pre cleaning within reprocessing workflow
Lionel Pineau, France

Importance of cleaning aspects during automated reprocessing of flexible endoscopes
Heike Martiny, Berlin

Cleaning, from user point of view
Urike Beilenhoff, Germany

Discussions

Workshop 8: New development in EUS guided FNA

This workshop is organised by FUJIFILM Europe

Workshop language is English

16:00-17:30 **Hall 6**

Chairs: Martin Hubweber, Germany,
Agaath Hanrath, NL

Aims & Content
Hands-on training using bio simulator (pig model) - basic techniques in FNA.

Furthermore, the participants will learn the concept of using multiple needles to reduce procedure time during FNA.

A new concept of exchanging different needles in one patient without losing the position of endoscope and needle will be explored.

Workshop 9: Patient care in endoscopy = Pflege in der Endoskopie

This workshop is organised by **DEGEA and DBfK**

Workshop language is German

16:00-17:30 **Salon 11/12**

Chairs Silvia Meating, Germany
Brigitte Schmidt-Rades, Germany

The Workshop combines lectures and practical demonstrations

16:00-16:30 External abdominal pressure
= Kolonschienen will gelernt sein
Doris Steifenhöfer, Germany

16:30-17:00 Thermoregulation – what can we learn from other specialities
= Wärmemanagement – was lernen wir von anderen Fachbereichen
Andrea Sochart, Germany

17:00-17:30 Patient positioning prevents complications
= Lagerungsmanagement beugt Komplikationen vor
Silke Bichel, Germany

Workshop 10: Hands-on Training on Bio Simulators

This workshop is organised by **ESGENA**

Workshop language is English

16:00-17:30 **ESGE Learning Area in Hall 14.1.**

Chairs: Michael Ortmann, Switzerland
Eric Pflimlin, Switzerland

Aims & Content
Hands-on training on bio simulators (pig models) under the supervision of highly experienced tutors:
Participants will have the opportunity to perform endoscopic techniques on the following topics:

- OGD with Injection techniques, ligation, clipping, APC
- Colonoscopy with Polypectomy, EMR and APC
- ERCP with stone extraction and stenting

As participation will be limited, registration will be on a first-come-first-served basis.
Tickets will be available onsite only – at the entrance of the ESGE Learning Area.

4.2. ESGENA-Scientific Programme on 13 October 2013

SESSION 1: Free paper session I

09:00-10:30 **Hall 7**

Chairs Enriqueta Hernandez-Soto, Spain
Gunilla Strand, Sweden
Sigrun Kauertz, Germany
Monika Engelke, Germany

09:00-09:10 Welcome
Ulrike Beilenhoff, Germany

09:10-09:25 Reducing total turnaround time of recovery process in an endoscopy unit: A lean management strategy L-1
Siriporn Ratanalert, Wanpen Pinyopasakul, Sopa Boonviriya, Varaporn Senapitakkul, Ruankwan Pongprayoon, Thailand

09:25-09:40 Risk management in Endoscopy Unit – the nursing contributions L-2
Ane Linden, Suzana Muller, Brazil

09:40-09:55 Pathway program for newly hired nurses in Gastroenterology and digestive Endoscopy L-3
Cinzia Rivara, Davide Cordioli, Daniela Carretto, Monica Vargiu, Monica Cimbro, Margherita Caldana, Italy

09:55- 10:10 Stop the line - presence of mycobacteria in final endoscope rinse water L-4
Jenny Gooden, Irene Dunkley, United Kingdom

10:10-10:25 Monitoring the effectiveness of cleaning in flexible gastrointestinal endoscopes using the methodology of detection of ATP through bioluminescence L-5
Lucia Tomiato, Brazil

SESSION 2: Complication management

09:00-10:30 **Roof Garden**

Chairs Jadranka Brljak, Croatia
Andrea Sochart, Germany

09:00-09:10 Welcome
Michael Ortmann, Switzerland

09:10-09:30 Endoscopic complications in OGD and Colonoscopy – what can we learn from it? L-6
Michael Jung, Germany

09:30-09:50 Endoscopic closure of gastrointestinal holes and leaks L-7
Hrvoje Iveković, Croatia

09:50-10:10 How can we minimise the risk of ERCP L-8
Karel Caca, Germany

10:10-10:30 How can we decrease the oversight of neoplasie and GI leasion L-9
Ralf Kießlich, Germany

SESSION 3: Free paper session II

11:00-12:30 **Hall 7**

Chairs Enriqueta Hernandez-Soto, Spain
Gunilla Strand, Sweden
Sigrun Kauertz, Germany
Monika Engelke, Germany

11:00-11:15	Prevention of undernutrition in elderly patients with enteral feeding Alexandra Rei, Alexandra Viegas, Ana Francês, Angelina Fontes, Célia Cuco, Dora Palma, Fernanda Manso, Francisco Miguel, Manuela Henriques, Maria Mendes, Portugal	L-10
11:15-11:30	Oral care in Hepatology nursing: nurses' knowledge and education Lea Ladegaard Grønkjær, Denmark	L-11
11:30-11:45	The management of psychiatric patients in the endoscopy unit Ann Duflou, Lydia Singels, Lisbeth Mathus-Vliegen, The Netherlands	L-12
11:45-12:00	Danish nationally certified nurse endoscopists are qualified to undertake colonoscopy at specialist level Helle Roy Tillgaard, Denmark	L-13
12:00-12:15	Nurse led review of colonoscopy surveillance referrals, right patient - right time Julie Maddocks, Janet Jones, Irene Dunkley, United Kingdom	L-14
12:15-12:30	Colonoscopy: Looking for the best insertion technique Samuele Gallo, Erik Rosa-Rizzotto, Orfeo Canova, Violetta Kopczynska, Cristina Magro, Silvano Sorti, Corrado Lucchini, Diego Caroli, Franca De Lazzari, Italy	L-15

SESSION 4: Bronchoscopy

11:00-12:30 **Roof Garden**

Chairs Marjon de Pater, The Netherlands
Björn Fehrke, Switzerland

11:00-11:20	COPD illness and Bronchoscopy Kathleen Jahn, Switzerland	L-16
11:20-11:40	Bronchial thermoplasty in severe asthma: Clinical data, indication and procedure Neil Inhaber, USA	L-17
11:40-12:00	Complications and emergency situations in Bronchoscopy Michael Ortmann, Switzerland	L-18
12:00-12:20	Application of oxygen in patients with pulmonary disease Andreja Šajnić, Croatia	L-19
12:20-12:30	Discussion	

Workshop 11: Hands-on training on bio simulators

11:00-12:30 **ESGE Learning Area in Hall 14.1.**

Chairs: Eric Pflimlin, Switzerland
Evi Baumann, Switzerland

Hands-on training on bio simulators (pig models) under the supervision of highly experienced tutors.
Participants will have the opportunity to perform endoscopic techniques on the following topics:

- Upper GI Bleeding
- ERCP

As participation will be limited, registration will be on a first-come-first-served basis.
Ticket will be available onsite only – at the entrance of the ESGE Learning Area.

Posterround I

12:30-14:30 **Poster area in front of Hall 7**

Chairs: Jayne Tillett, United Kingdom
Hanne Olsen, Denmark
Brigitte Schmidt-Rades, Germany
Anja Stelte, Germany

Patient preparation

1. Quality assessment of bowel preparations P-1
   Pedro Caldeira, Paula Coelho, Catarina Rodrigues, Alvellos Leitão, Eduardo Pires, João Deus, Portugal

2. Efficacy of two low-volume colon cleansing regimens: a randomized controlled trial P-2
   Marta Oliveira, Eduardo Serra Oliveira, Miguel Mascarenhas-Saraiva, Portugal

3. In search of the best preparation: polyethylene glycol vs. sodium picosulphate for a successful colonoscopy P-3
   Mihaela Calița, Daniela Burtea, Monica Molete, Romania

4. A pilot study evaluating a new low-volume cleansing procedure for capsule enteroscopy P-4
   Eduardo Serra Oliveira, Marta Oliveira, Miguel Mascarenhas-Saraiva, Rolando Pinho, Portugal

5. Effects of chewing gum on abdominal discomfort, nausea, vomiting and drug compliance for the patients taking polyethylene glycol solutions in the preparation of undergoing colonoscopy P-5
   Jisun Lee, Republic of Korea

6. Fundamental elements in bowel - preparations - efficacy and compliance P-6
   Joe Garzia Stafrace , Malta

During endoscopy procedures

7. Propofol administration during colonoscopy: give it to the nurse! P-7
   Samuele Gallo, Erik Rosa-Rizzotto, Orfeo Canova, Violetta Kopczynska, Cristina Magro, Silvano Sorti, Corrado Lucchini, Diego Caroli, Franca De Lazzari, Italy

8. Thermoregulation and prevention of hypothermia – an issue in routine Endoscopy? P-8
Andrea Sochart, Neuss, Germany

9. Preoperative endoscopic marking: tattooing with the blood of the patient for laparoscopic surgery P-9
Krisztina Tari, Péter Lukovich, Gábor Váradi, László Harsányi, János Weltner, Zoltán Völgyi, Krisztina Vecseiné Könczöl, Hungary

10. Particularities of periprocedural care and reprocessing of high-end confocal laser endomicroscopic imaging systems P-10
Daniela Burtea, Mihaela Calița, Monica Molete, Romania

11. New diagnostic tools in digestive endoscopy and a new patient care approach: probe confocal laser endomicroscopy (PCLE) P-11
Mauricio Giacomini, Anna Di Meo, Stefania Dotto, Martina Nicodemo, Sonja Cedrone, Maria Tabuso, Renato Cannizzaro, Italy

12. Intraductal Aspiration (IDA): A promising new tissue sampling technique for diagnosis of suspected malignant pancreatobiliary strictures P-12
Giulia Provenzano, Gabriele Curcio, Antonino Granata, Gaetano Fazio, Loredana Giglio, Ilaria Tarantino, Luca Barresi, Mario Traina, Italy

Patient care in Gastroenterology

13. Proposal to prevent the risk of infection in patients with a gastrostomy P-13
Stéphane Bois, France

14. Home care instructions and complications after placement of a percutaneous gastrostomy tube P-14
Mónica Granados Martín; Dania Rocío Díaz Rodríguez; Mª Luz Prieto Vasallo; Pilar Soldevilla de la Esperanza; Pilar Villanueva Jiménez; Marta Godás; Elena Arévalo, Spain

15. Quality of life in patients fed via peg-tubes and the role of the nurse P-15
Nimet Tüzomay, Özdal Ersoy, Serpil Türker, Hülya Hamzaoğlu, Turkey

16. Translation and validation of a fatigue scale for people in treatment of Hepatitis C. P-16
Rosa Mª García-Sierra, Maria Feijoo Cid, Cristina Varoucha Azcárate, Rosó Bernal Balada, Iolanda Caballero Sàez, Maria López Parra, Merçè Pérez Bernal, Carme Baldrich Baldrich, Montserrat Vargas Laguna, Laura Moreno Salas, Roser Font, Rosa Taulé, Luisa Fernández, Adoración Torres, Ana Risueño. Spain

17. Effects of smoking in patients with Crohn's disease (CD): A retrospective study P-17
Maria van Vugt, The Netherlands

Lunch Session 1: New techniques & developments

This lunch session is organised by **ESGENA**

13.30-15:00 **Hall 7**

Chairs: Sylvia Lahey, The Netherlands
Stanka Popovic, Slovenia

ESD - make it easy? A new KS-Instrument for endoscopic submucosa dissection (Karl Storz GmbH)
Alexander Meining, Germany

Fuse™ - Full Spectrum Endoscope (endochoice)
Steffen Helms, Germany

Treatment of Barrett's esophagus patients with Radiofrequency Ablation (RFA) (Covidien)
Grischa Terheggen, Martina Störmann, Germany

Latest update on Olympus EndoTherapy devices: Bits and pieces that make your life easier (Olympus Europa Holding GmbH)
Franziska Buss, Germany

Olympus Endocapsule - system overview and patient preparation (Olympus Europa Holding GmbH)
Birgit Peters, Germany

EndoClot. A New Hemostat for GI Bleeding. Summary of First Year Clinical Experiences." (EndoClot Plus, Inc., MICRO-TECH Europe)
Steven Heniges, USA

Lunch Session 2: Hygiene & infection control

This lunch session is organised by **ESGENA**

13.30-15:00 **Roof Garden**

Chairs: Fanny Durand, France
Christine Petersen, The Netherlands

Detergents – the underestimated part of the process chemistry in endoscope processing (Chemische Fabrik Dr. Weigert GmbH & Co. KG)
Matthias Tschoerner, Germany

Automated endoscope drying and storage cabinets - what are the benefits for me? (STEELCO S.p.A)
Christopher Sillet, Germany

Benefit of storage cabinet for heat sensitive endoscopes in a chemical setting (Soluscope S.A.S)
Marlène Richard, France

Valves - the single story (Medivators)
Eric Pluijmen, Denmark

Challenges in cleaning, disinfection and storage of endoscopes (Medivators)
Mette Olesen, Denmark

Special Examination coats give more flexibility for endoscopy staff (1a medical AG)
Marilyne Stadler, Switzerland, Albert Kaiser, Switzerland

Lunch Session 3: Bronchoscopy

This lunch session is organised by **Olympus Europa Holding GmbH**

13.30-15:00 **Salon 11/12**

Chairs: Björn Fehrke, Switzerland
Michael Ortmann, Switzerland
Marjon de Pater, The Netherlands
Kathleen Jahn, Switzerland
Anja Schuster, Germany

Interventional Pulmonology, diagnostic and therapeutic procedures in bronchoscopy - a hands-on session with 4 training stations:

1. BAL, brushing and biopsy in a ventilated pig lung model
2. Classical TBNA for cytology and histology samples on anatomical and functional models
3. Peripheral sampling with the guide sheath technique in an anatomical, functional model
4. Foreign body removal with different forceps and objects with anatomical models.

Number of participants: limited to 40 persons

Workshop 12: Hands-on training on bio simulators

14:00-15:30 **ESGE Learning Area in Hall 14.1.**

Chairs: Eric Pflimlin, Evi Baumann, Switzerland

Hands-on training on bio simulators (pig models) under the supervision of highly experienced tutors.
Participants will have the opportunity to perform endoscopic techniques on the following topics:

- Colonoscopy
- ERCP

As participation will be limited, registration will be on a first-come-first-served basis.
Ticket will be available onsite only – at the entrance of the ESGE Learning Area.

SESSION 5: Updates in Gastroenterology

15:00-16:30 **Hall 7**

Chairs Irene Dunkley, United Kingdom
Gerlinde Weilguny, Austria

15:00-15:30	Diverticulitis - diagnosis and therapy Wolfgang Fischbach, Germany	L-20
15:30-16:00	Feacal transplantation Noortje Rossen, The Netherlands	L-21
16:00-16:30	Probiotcs for intestinal diseases Christoph Högenauer, Austria	L-22

SESSION 6: Education

15:00-16:30 **Roof Garden**

Chairs Christiane Neumann, Birmingham, UK
Kornelia Wietfeld, Marl, Germany

15:00-15:30 Developing frameworks in Endoscopy and Gastroenterology: The good, the bad and the useful L-23
Jennifer Masters, Wellington, New Zealand

15:30-16:00 Team time out – one year experience L-24
Marjon de Pater, The Netherlands

16:00-16:30 Implementation of the European curriculum in sedation in GI Endoscopy L-25
Ulrike Beilenhoff, Germany

Posterround II

16:30-17:00 **Poster area in front of Hall 7**

Chairs: Jayne Tillett, United Kingdom
Hanne Olsen, Denmark
Brigitte Schmidt-Rades, Germany
Anja Stelte, Germany

Management in Endoscopy

18. Professional burnout syndrome of registered nurses at departments of endoscopy. P-18
Evgeniya Korovina, Ekaterina Zakrevskaia, Sergey Kashin, Dmiriy Zaviyalov, Polina Michailova, Russia

19. Patient safety in endoscopy: An audit among endoscopy students P-19
Andrea Darwiche, Monika Engelke, Kaid Darwiche, Olaf Engelke, Anne Saha, Peter Gausmann, Germany

20. Observations of care in Endoscopy: A European study from the Netherlands, Spain, Russia, United Kingdom and Croatia P-20
Jayne Tillett, United Kingdom, Jadranka Brljak, Croatia, Marjon de Parter, The Netherlands, Enriqueta Hernandez-Soto, Spain, Evgeniya Korovina, Russia

21. Empowering education of colorectal cancer survivors: A systematic literature review P-21
Isabel, Pampulha, Nuno, Pereira, Vanessa, Machado, Portugal

Hygiene

22. Survey on the implementation of guidelines for reprocessing endoscopes in the endoscopic centers of the Friuli-Venezia Giulia, North Italy P-22
Mauricio Giacomini, Sonja Cedrone, Renato Cannizzaro, Luca Brugnaro, Aantonio Nappo, Italy

23. A new method for storage and transportation of flexible endoscopes P-23
Jayne Tillett, Stacey Timbrell, United Kingdom

SESSION 7: Management in endoscopy

17:00-18:30	**Hall 7**	
Chairs	Christine Petersen, The Netherlands Ute Pfeifer, Germany	
17:00-17:20	Freedom of movement in the EU: The opportunities and challenges of working and living in another EU country Christiane Neumann, United Kingdom	L-26
17:20-17:40	Intelligent light – relaxed atmosphere in Endoscopy Soren Meisner, Wendy Waagenes, Denmark	L-27
17:40-18:00	Endoscopy training in Africa – a report Olivier Lemoine, Belgium	L-28
18:00-18:20	Carbon dioxide insufflation – when it is needed and when not? Markus Reiser, Germany	L-29
18:20-18:30	Discussion	

SESSION 8: Quality assurance

17:00-18:30	**Roof Garden**	
Chairs	Stanka Popovic, Slovenia Doris Stiefenhöfer, Germany	
17:00-17:20	Improving quality in colonoscopy Miguel Muñoz-Navas, Spain	L-30
17:20-17:40	Good solutions for stone extraction Frank Merkwitz, Germany	L-31
17:40-18:00	Unsual findings during Endosocpy Alexander Dechene, Germany	L-32
18:00-18:20	Reprocessing problems with biospy valves Sigrun Kauertz, Germany	L-33
18:20-18:30	Discussion	

4.3. ESGENA-Scientific Programme on 14 October 2013

SESSION 9: New techniques and developments in Endoscopy

08:30-10:30 **Hall 3**

Chairs Michael Ortmann, Switzerland
Ulrike Beilenhoff, Germany
Sigrun Kauertz, Germany

Presentation of major sponsors

08:30-08:45 Latest news on ETD4, Endocapsule, EU-ME2 and EndoTherapy instruments (Olympus Europa Holding GmbH)
Reinhard Blum, Germany

08:45-09:00 Benefits of "Evolving" to Controlled-Release Stents (Cook Medical)
NN

09:00-09:15 Advances in Hemoclipping: Clinical perspectives and best practices (Boston Scientific Europe) L-34
Ralf Kiesslich, Germany.

09:15-09:30 Customer-oriented products for endoscope reprocessing (PENTAX Europe mbH)
Tanja Nordhoff, Germany

Scientific presentations

09:30-09:50 Developments in nurse education in Europe L-35
Franz Wagner, Germany

09:50-10:10 Shall we protect our liver with a cup of coffee? L-36
Jürgen Fröhlich, Germany

10:15-10:25 **Best free paper and best poster award (sponsored by PENTAX)**
Michael Ortmann, Switzerland
Ulrike Beilenhoff, Germany
Sigrun Kauertz, Germany

10:25-10:30 **Invitation to the next ESGENA Conference 2014 in Vienna**
Anita Beyer & Gerlinde Weilguny, Austria

4.4. UEG Week Postgraduate Teaching Programme

The UEG Week Postgraduate Teaching Programme is the preeminent Continuing Medical Education opportunity in Europe for Medical and Surgical Gastroenterologists. It caters for both established practitioners and trainees.
The congress offers a full two-day Postgraduate Programme on Saturday and Sunday incorporating gastroenterology, hepatology, endoscopy, surgery, imaging and other diagnostic modalities. Participants need to purchase a "passport" to move around the various options that will be running in parallel to allow them to "pick'n mix" according to their needs and interests. Full registration for the congress is not required.
ESGENA delegates have full access to the UEG Week Postgraduate Teaching Programme.

See UEG Week Programme

4.5. ESGE Live Endoscopy

On Tuesday, October 15, live demonstration sessions will be broadcast from the Berlin hospitals, International experts will perform and comment live procedures. The live video demonstrations are moderated on-site by a team of speakers, and accompanied by short talks relating to the procedures shown.

Tuesday, October 15, 2013

8:30 – 10:30 **Hall 1**
Chair: Paul Fockens, The Netherlands, Hans-Joachim Schulz, Germany

11:00- 12:30 **Hall 1**
Chair: Horst Neuhaus, Germany, Rainer Schöfl, Austria

14:00 – 15:30 **Hall 1**
Chair: Lars Aabakken, Norway; Alexander Meining, Germany

4.6. ESGE Learning Area

At the Hall 14.1.

Hands-on Training Centre

The Hands-on Training Centre is increasingly popular and well-visited by delegates of the UEGWeek who specialize in endoscopy or are otherwise interested in endoscopic procedures. The 90-minute training sessions in the Hands-on Theatre offer unique access to state of the art endoscopic equipment and accessories. Participants will have the opportunity to look, learn, ask questions and perform techniques themselves under personal doctor and nurse tutoring. In cooperation with ESGENA, the aim of this activity is to increase the awareness of diagnostic and therapeutic techniques and to offer delegates the possibility of checking their skills. This year the scope of procedures and sessions has been extended to give even more insight into good and current endoscopy.

Registration for the Hands-on Sessions in the Operating Theatre: Registration is required on Saturday, Sunday and Monday. Please register at the ESGE desk in the Learning Area (starts Saturday 10.00 am). Participation will be on a first-come-first-served basis. To maintain a high standard of teaching each workstation is limited to a maximum of eight participants. Multiple registrations are not intended.

Laparoscopic and endoscopic training on Simbionix GI Simulators is available on a walk-in basis throughout the conference week.

Saturday, Oct 12, 2013

Registration onsite

- EMR
- Hemostasis (injection, clipping, varices ligation)
- Polypectomy / colonoscopy
- ERCP

Session 1 14:00 - 15:30
Session 2 16:00 - 17:30

Sunday, Oct 13, 2013

Registration onsite

- EMR
- Hemostasis
- Polypectomy / colonoscopy
- Radiofrequency ablation (only session 2 and 3)
- ERCP
- ESD (only session 1)

Session 1 11:00 – 12:30
Session 2 14:30 – 15:30
Session 3 16:00 – 17:30

Monday, Oct 14, 2013

Registration onsite

• EUS	Session 1	09:00 – 10:30
• FNA	Session 2	11:00 – 12:30
	Session 3	14:00 – 15:30

Tuesday, Oct 14, 2013

No registration required

• Ablation techniques in Barrett's Esophagus	Session 1	09:30 – 11:00
	Session 2	16:00 – 17:30
• Modern clip treatment for bleeding, fistulae and perforation	Session 1	10:30 – 12:00
	Session 2	13:00 – 14:30
• Hemostasis – Hands-on experience with the Instinct Clip and Hemospray	Session 1	11:00 – 12:30
	Session 2	14:00 – 15:30
• Therapeutic approach to GI lesions: ESD	Session 1	11:30 – 13:00
	Session 2	15:00 – 16:30

Wednesday, Oct 15, 2013

No registration required

• Ablation techniques in Barrett's Esophagus	Session 1	09:30 – 11:30
• Hemostasis – Hands-on experience with the Instinct Clip and Hemospray	Session 1	10:30 – 12:00

New procedures in endoscopy Session 1 09:30 – 11:00

No registration required

• Therapeutic approach to GI lesions: ESD	Session 1	10:30 – 12:00

ESGE DVD Learning Centre

The DVD Learning Centre offers all delegates the opportunity to view the latest teaching material on video screens with headphone sound transmission.

Case studies from the ESGE DVD Encyclopaedia are complemented by select video submissions from ASGE and JGES. This offering is ideal for individual study and special interest.

ESGE Lecture Theatre

In the ESGE Lecture Theatre highly qualified and well-known endoscopists have been invited to present their views and experience with current endoscopic procedures and techniques. Their counterparts in discussion are equally well-known, in several cases more senior specialists whose role it is to moderate the talk and perhaps critically question the case at hand. The number of participants is limited to 70 in order to ensure a small-forum atmosphere where active participation is possible.

Sunday, Oct 13, 2013

09:30 – 10:00	S. Kashin N. Yahagi	Russia Japan	Complications after gastric ESD: can we predict them? How to treat?
10:45 – 11:15	L. Madáscy R. Schöfl	Hungary Austria	Gastric variceal bleeding: how do I stop it?
11:45 – 12:15	A. Bredenoord T. Roesch	The Netherlands Germany	POEM: when and how do I do it? what to expect in 2013?
15:00 – 15:30	T. Hucl P. Vilmann	Czech Republic Denmark	EUS-guided FNA: is it all about the needle?

Monday, Oct 14, 2013

10:00 – 10:30	J. Martinek R. Bisschops	Czech Republic Belgium	Barrett's esophagus surveillance: how to do it?
11:00 – 11:30	J. van Hooft O. Le Moine	Belgium Belgium	Difficult biliary canulation: how do I deal with it?
14:00 – 14:30	C. Hassan E. Dekker	Italy The Netherlands	Screening colonoscopy: capsule? ready for primetime?
16:00 – 17:30	C. Rees		Research workshop

Tuesday, Oct 15, 2013

10:00 – 10:30	A. Koch I. Gralnek	The Netherlands Israel	Peptic ulcer bleeding: new treatment modalities?
11:15 – 11:45	A. Repici O. Pech	Italy Germany	RFA in Barrett's esophagus: what to treat?
14:00 – 14:30	S. Mao de Ferro A. van Gossum	Portugal Belgium	Small bowel polyps: how to manage?
14:45 – 15:15	C. Rolanda S. van der Merwe	Portugal South Africa	Endoscopic closure of perforations: what do we have? what do we use?
16:00 – 16:30	J. Iglesias-Garcia M. Giovannini	Spain France	Pancreatic cysts: What to do?

Wednesday, Oct 16, 2013

10:00 – 10:30	D. Serra J. Devière	Spain Belgium	Anti-obesity treatment: what is the current role of endoscopy?
11:15 – 11:45	P. Familiari L. Aabakken	Italy Norway	SEMS for benign biliary strictures: when and how?
12:00 – 12:30	M. Häfner T. Ponchon	Austria France	Colonic polyps: biology without histology?

5. Abstracts

5.1. Oral Presentations on 13 October 2013

L-1

Reducing total turnaround time of recovery process in an endoscopy unit: a lean management strategy

Siriporn Ratanalert RN*, Wanpen Pinyopasakul**, Sopa Boonviriya*, Varaporn Senapitakkul*, Ruankwan Pongprayoon*, * NKC Institute of Gastroenterology and Hepatology, Songklanagarind Hospital, ** Faculty of Nursing, Mahidol University, Thailand

Introduction: Effective time management is significant when providing care at endoscopy unit due to an increasing number of patients and service demands. In 2011, the NKC Institute of Gastroenterology and Hepatology, Songklanagarind Hospital, Thailand developed a lean management program at an outpatient endoscopy unit to enhance time and resource management. The outcome revealed shorter waiting time for patients attending endoscopy services.[1] However, when examining each care process there was still a delay in the recovery period most likely due to sedative effects and late family notification. This delay indicated the necessity to improve efficiency of the care process, especially recovery management, in order to enhance safe practices and best outcomes for patients.
Aim: The purpose of the study was to examine the effect of lean management on reducing total turnaround time (TAT) of care process in patients undergoing endoscopy at outpatient services.
Method: This study was conducted at an endoscopic unit, Thailand, from November 2012 to April 2013. The samples comprised 385 patients undergoing panendoscopy and colonoscopy procedures. Before starting the new lean management program, strategies to improve recovery management had been sought. Initially, the endoscopy nurses had a meeting to discuss the delay issues. An anesthetist was then invited to provide education about best sedation practice. Finally, Fentanyl has been selected for use, when appropriate, instead of Meperidine to minimize prolongation of recovery.[2] Early notification of relatives was also performed to speed up the discharge process. After all, the new lean management program was implemented. Data collection began by recording TAT of care process, from time of arrival to discharge of each procedure. Data were analyzed by using percentage to compare the TAT noted in the previous post-lean management program with that of the new program.
Results: Resulted showed that in the new lean management program the TAT of care process in all patients undergoing panendoscopy and colonoscopy procedures (n = 385) was 67.2 minutes with efficiency at 43.60 %, whereas in the previous one the TAT was 100.7 minutes with efficiency at 34.86 %.
Summary: This study found that the use of this new lean management strategy in ambulatory endoscopy services helped reduce TAT for patients.
Conclusion: The findings demonstrate that the use of lean management by endoscopy nurses and health care team contributes to better patient outcomes in endoscopy services.

References

1. Ratanalert, S., et al. Integrating Lean Management to Reduce Waiting Time for Patients undergoing Endoscopy at Outpatient Services. Proceedings in the 15th ESGENA Conference, 23-24 October 2011, Stockholm. Sweden: 2.
2. Sonwalkar, S. Guidelines on safe sedation practice for endoscopy. NHS Foundation. 2010: 8-9.

Learning Outcomes

Lean management contributes to effective care process. Nurses are encouraged to use this quality improvement strategy in endoscopy services.

L-2

Risk management in endoscopy unit – the nursing contributions

Linden, Ane. Muller, Suzana. Hospital de Clinicas de Porto Alegre-Universidade do Vale dos Sinos, Brazil

Introduction: In an endoscopy unit, the tuning actions, conformity to technical standards and operational efficiency are the fundamental elements, and Risk Management can help to achieve the main objectives, such as quality of service, patient safety and staff satisfaction. For the efficient coordination in endoscopy, there must be a complex flow of information, materials and funds between the various functional areas within and outside the organization, and for achieve this goal it is vital the Risk Management. The Risk Management as a methodology was incorporated into the healthcare area for about 30 years due to the increasing complexity of services and the adverse consequences arising from these services. Due to this new reality, we see the importance of addressing the Risk Management encompassing the various links involved in meeting the needs of the patient.
Aims: Considering this background, the purpose of the research was to examine the main aspects concerning risk management in a endoscopy unit, as well as nursing implications.
Methods: A survey was conducted among nurses of the Endoscopy Unit from a public teaching hospital in Brazil. Cause and effect analysis attempts to identify adverse events and process failures.
Results: After assessment, algorithms were established to identify the breaking points of the processes and the possible guiding route to the best solution and balance more quickly and efficiently. The primary outcomes of interest were the causes and consequences of adverse events. Four factors were identified concerning risk management in endoscopy area: technical, biological, systems-related and individual performance failures. Practice strategies for the reinforcement of safety and risk management were developed based on protocols from the Joint Commission International (JCI). In order to address each identified factor, an useful framework was designed and applied into practice.
Summary and discussion: The research addresses an identified gap in the empirical data for selecting risk management strategies in endoscopy. Furthermore, it outlines that risk reduction approaches depends, essentially, on innovative solutions brought by nurses.

Conclusion: It is worth highlighting the results showed that in endoscopy units, risk management concerning patient safety was the leading category. To reduce and prevent the occurrence of risk events in endoscopy, better systems for recognizing and for assessing their causes are required. A supportive safety culture is considered to be an essential condition for improving patient safety and service performance. Visual aids and interactive strategies, like a framework, can create service innovation and risk management capabilities.

Learning outcomes and relevance to nursing practice: Risk management in endoscopy units require ongoing effort, fine-tuning and innovative solutions brought by nursing team. Risk events related to endoscopy procedures occur at the interface between different proccesses and represent nursing challenges.

References:

- Faisal,M. Banwet,D. Shankar,R. Supply chain risk mitigation: modeling the enablers. Business process management Journal. Sep.12 (4), 2006.
- Spath, P.L. Error Reduction in Health Care. John Wiley & Sons, 2011

L-3

Pathway program for new hired nurses in Gastroenterology and Digestive Endoscopy

Cinzia Rivara, Davide Cordioli, Daniela Carretto, Monica Vargiu, Monica Cimbro, Margherita Caldana, Italy

Background: A pathway program for new hired nurses in Gastroenterology and Digestive Endoscopy may be critical if it cannot be managed analytically and with the support of all professionals working in the Unit. It deals with the definition of a feasible structured coaching program for new employees through the planning of different processes within the Operating Unit (welcome, entrance, training of the new hired nursing personnel).

When planning the entrance, a pathway that starts from general concepts to get specialized knowledge and skills is needed.

Aims: Drafting of a detailed entrance plan.

Specific aims:

- To assure an effective education of Nurses
- To get operational autonomy
- To assure that training is managed with a proper program and deadlines
- To standardize the Nursing Care in Digestive Endoscopy
- Integration with the existing staff
- To document in writing the level of education achieved by the new hired step by step
- To identify, report and manage risk situations
- To know specific materials and devices to be used in election and emergency

Method: Establishment of a working group made of all professional nurses and doctors of the unit who collaborated to the drafting of the protocol for the entrance of new hired staff. The working group was assigned the following tasks:

- Analysis of the reference international scientific literature
- Analysis of most updated current national and international guidelines
- Drafting of the document, including check-lists

Results: The document was drafted according to an outline shared by all the healthcare professionals working in the unit. The pathway program was articulated in three skill levels divided in training modules. Each module specified functions, aims, responsabilities, teaching/learning method for each individual activity, evaluation, teaching materials, reference documents and schedule. The use of teaching modules was decided because they were considered easier and less confusing with respect to the amount of information provided. Moreover they facilitate the organization of the pathway program starting from simple activities to reach more complex ones.

Conclusions: Drawing up a shared plan, which is periodically subject to a systematic review based on organizational changes, allowed a correct and optimal management of the personnel oriented to the satisfaction of patients, members of the team and organization itself both in terms of efficiency and effectiveness.

It is indeed a constant professional and research in field experience that needs to be implemented over time.

References

1. Buonaccorso S., Tincani M. Percorso di inserimento, addestramento del personale infermieristico neo inserito Unità Operativa di Endoscopia Digestiva. *Anote News* 2009, n.1, pag. 3-6.
2. ESGENA Core curriculum for Endoscopy Nursing, September 2008. Available at www.esgena.org
3. Rivara C et al. Assessment of workload and manning levels in Endoscopy Units. Poster at 16th ESGENA Conference, Amsterdam 1012, Abstract Book P22 pag. 62.
4. Workshop "La qualità della Gastroenterologia in Piemonte: criteri e competenze", Torino (Italy), 3 dicembre 2011.

Learning outcomes:

- Recommendations in line with the objectives of safety and quality can be drawn only through the application of a scientific method
- Methods and tools for continuing education and organizational growth and development can be found within the Operating Unit

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L-4

Stop the line - Presence of Mycobacteria in Final Endoscope Rinse Water

Jenny Gooden RGN RM, Hinchingbrooke Health Care NHS Trust, Huntingdon, Cambridgeshire, Irene Dunkley MSc; BSc; RGN Hinchingbrooke Health Care NHS Trust, Huntingdon.

Introduction: Endoscope final rinse water testing is carried out to exclude the presence of harmful organisms in the final rinse water thus preventing the risk of infection to patients. 'Stop the Line' is a process originally adopted by Toyota car plant where production lines were stopped when a problem was identified. Within our Hospital this practice was adapted to the healthcare environment when a potential to harm patients is identified. Mycobacterium was discovered in our final endoscope rinse water during routine testing and our endoscopy department 'Stopped the Line' escalating to executive board level to raise the concern of potential risk to patients and to identify remedial actions.

Management of Mycobacterium in Final rinse water Actions: All planned endoscopy procedures stopped**;** in-patient emergencies individually risk assessed. Meeting was initiated by the endoscopy manager and options were appraised within the multi-disciplinary team which included: Hospital decontamination lead, Infection Control team, Endoscopy Manager, Estates Department, Treatment

Centre Management, Deputy Director of Nursing, Risk Management, Clinical Lead Endoscopy, Nurse Consultant Gastroenterology and Nurse Consultant Urology.

Risk Assessment: Low risk gastro-intestinal endoscopy able to continue with scopes decontaminated on site. Higher risk procedures, (ERCP, cystoscopy, and bronchoscopy), and GI endoscopy on patients who are immune-compromised to recommence once arrangements could be made for scopes to be reprocessed off site, meeting national guidance (CFPP 01-06).

- *Within 24 hours*: a neighbouring hospital's Sterile Supply Services contacted arranged for decontamination of endoscopes for high risk procedures agreed. Endoscopes were vacuum packed after decontamination therefore remaining 'clean' for 31 days.
- Courier services arranged transportation of scopes to Sterile Supply Services.
- *Within 36 hours*: Low risk GI endoscopy resumed; cases obtained.
- *Within 72 hours*: scopes sent offsite for decontamination.
- *Day 6:* scopes received back; limited urology service resumed.
- *Day 9*: Remedial work agreed with company to be carried out over a weekend to minimise disruption to service, followed by repeat testing.
- *Day 26*: Remedial work carried out, final rinse water retested.
- *Day 56:* Received clear results; on site decontamination of all scopes resumed.

Lessons learnt: 'Stop the Line' action escalated our problem to our executive board. Actions were agreed and implemented reducing the risk of harm to patients and minimising disruption to services. Loss of lists: 7 GI lists and 3 urology lists; all patients rebooked within target dates. Good communication with our courier services ensured timely transportation of endoscopes.

Remedial work and on-going cost of filters; decontamination off site and cost of transportation negotiated with our decontamination provider. Initial lack of engagement from decontamination provider. Limited awareness of issue at national level although several units affected – deemed to be a local issue. Some mycobacteria are permissible in drinking water (CFPP 01-06).

References:

- DOH (2013) Choice Framework for local Policy and Procedures 01-06 - Decontamination of flexible endoscopes: Design and Installation section 2 Water quality and water treatment . The Stationery Office London
- Stop the Line: Toyota Production System Jidoka 1971

L-5

Monitoring the effectiveness of cleaning in Flexible Gastrointestinal Endoscopes using the Methodology of detection of ATP through bioluminescence

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The evaluation of the cleaning in endoscopes is difficult due to the lack of visual access in the internal channels. The ATP bioluminescence method allows monitoring cleanliness detecting protein by collecting rinsing water from the internal channels. ATP is an indicator of organic and microbiological contamination.

Objective: To monitor the effectiveness of cleansing in endoscopes by ATP bioluminescence method.

Method: We collected samples from gastroscopes, colonoscopes and duodenoscopes according to protocol: 1-heating water to a temperature of 45℃, 2- dilution of enzyme detergent in heated temperature, 3 - immersion of endoscope into enzymatic detergent solution; 4- injection of enzymatic detergent with connector into the internal channels for 3 minutes; 5 - brushing 3 times in the internal channels; 6 - rinsing of 200ml in the internal channels with connector, for a total volume of 400ml. After manual cleaning the endoscopes, the sample was performed by injecting 20 ml of reverse osmosis water into the channels in a sterile cuba. We have monitored the results by detecting ATP through bioluminescence test by using the system 3M™ Clean-Trace™ ATP Systems as directed by the manufacturer. The cleansing effectiveness was mensured by RLU. To estimate the cleansing effectiveness, we used the median and confidence interval of 95%.

Results: The values found through the median were 724 RLU for gastroscopes, 48 RLU for colonoscopes and 135 RLU for duodenoscopes.

Discussion: There was a significant difference of the gastroscopes analyzed with highest value in RLU. According Alfa et al (2013), the values found in colonoscopes and duodenoscopes are within the acceptable levels, that is, below 200RLU.

Conclusion: Monitoring through bioluminescence test offers fast monitoring of the cleaning of endoscopes allowing to evaluate the effectiveness of the cleansing in processing endoscopes.

Learning outcomes: Further studies must be carried out to evaluate the high values in RLU for gastroscopes.

References:

1- Alfa et al. Validation of adenosine triphosphate to audit manual cleaning of flexible endoscope channels AJIC: American Journal of Infection Control. Volume 41, Issue 3, Pages 245-248, March 2013.

2- Obee et al. Real-time monitoring in managing the decontamination of flexible gastrointestinal endoscopes. AJIC: American Journal Infection Control. Vol. 33 Issue 4 .Pages 202- 206, May 2005.

L-6

Endoscopic complications in EGD and colonoscopy – what we can learn from it

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Diagnostic and therapeutic esophago-gastro-duodenoscopy and colonoscopy are regarded as save procedures. In big (mostly retrospective) trials the overall complication rate for upper GI endoscopy ranges around 0.13 % with an associated mortality of 0.004 %. Relevant bleedings after simple mucosal biopsy are rare whereas bleeding after endoscopic interventions (variceal ligation) may occur around 5 % and aspiration pneumonia as further complication in 1 %, so mortality in bleeding complications after endoscopic interventions is around 1 %.

However, most of the complications are cardio-pulmonary resulting from sedation with Propofol and Midazolam (ASGE 2002). In a risk factor analysis focussed on Propofol for interventional endoscopic procedures serious events are rare but mask aspiration occurred in 0.4 % followed by intensive care treatment (0.3 %) and death 0.03 % (Wehrmann 2008).

In colonoscopy, the overall risk for diagnostic procedures is 0.12 %. The risk increases parallelly with the degree of the intervention. In the Munich MUPS polypectomy study (2005) the perforation rate was 0.73 %, followed by surgical interventions in 57 %. In contrast the bleeding rate was 5.8 % with endoscopic control in nearly all cases (99,6 %). For endoscopic mucosectomy and submucosal dissection there is a risk rate: for EMR the perforation rate is 0.58-3.0 % and increases up to 14 % for ESD in larger publications (Taku 2007).
In a recently published trial the incidence and costs of unexpected hospital use after scheduled outpatient endoscopy was higher than expected (Leffler 2012). So 1 % of all patients undergoing EGD and colonoscopic procedures were admitted to the hospital after the procedure because of complaints and complications after endoscopy. Reasons for hospital stay were abdominal pain, fever, pneumonia, and thoracic pain. The number was 2-3 times higher than previously estimated, and additional costs for hospital stay were around 10,000 $ per person.
Endoscopic and even therapeutic endoscopy (polypectomy etc.) can be performed in an outpatient way because of the low risk and of the standardized and safe procedures. Nevertheless current data suggest a higher incidence of problems than expected related to sedation complications, abdominal symptoms, and serious events after polypectomy (bleeding, perforation).
The endoscopic team should be aware of patients complaints and consequently should favour hospitalization in unclear symptoms after the examination.

L-7

Endoscopic closure of gastrointestinal holes and leaks

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Although gastrointestinal (GI) leaks and holes may result from spontaneous perforation of the GI tract or. benign or malignant fistulas, majority of them results from increased use of therapeutic endoscopy procedures (i.e. endoscopic mucosal resection, endoscopic submucosal dissection, intraluminal dilation, and needle-knife incision of strictures) or disruption of anastomosis made after various surgical procedures. If recognized early, many of these advese events can be treated endoscopically. Namely, prompt indentification of an iatrogenic perforation - preferably during the proceudre - allows one not only to limit the accumulation of extraluminal air by minimizing insufflation, but more importantly, to prevent the egress of luminal content. Pending on the anatomical features and clinical scenario involved, endoscopic therapy of the GI holes and leaks follows the surgical principles of closure or control of the leakage by diverstion of intraluminal content away from the site of leakage. Endoscopic clip placement (through- or over-the-scope) is currently the standard method for closing luminal holes. Several endoscopic suturing devices have been developed for NOTES and antireflux and bariatric procedures, however, experience regarding their use for closure of acute perforations remains limited at this time. Endoscopic stent placement is effective method for control of leakage, especially in esophagus and other upper GI tract perforations. For patients in whom endoscopic therapy is unfeasible or unsuccessful (i.e. perforation through malignant neoplasm or at a site of significant inflamation), or recognition of peroforation is delayed, or clinical deterioration occurs despite endoscopic treatment, surgery is generaly warranted.

References:

1. Baron TH et al. A comprehensive approach to the management of acute endoscopic perforations. Gastrointest Endosc 2012; 76(4): 838-59.
2. ASGE Standards of Practice Committe. Adverse events of upper gastrointestinal endoscopy. Gastrointest Endosc 2012; 76(4): 707-12.
3. Raju GS, et al. Emerging endoscopic options in the management of esophageal leaks. Gastrointest Endosc 2005; 62(2): 278-86.
4. Raju GS, et al. Endoscopic managament of colonoscopic perforations. Gastrointest Endosc 2011; 74(6): 1380-88.
5. ASGE Technology Committee. Endoscopic closure devices. Gastrointest Endosc 2011; 76(2): 244-51.

L-8

How can we minimize the risk of ERCP?

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Since its introduction in 1968, ERCP has become a commonly performed endoscopic procedure. Complications are inherent in the performance of endoscopic procedures and more so for ERCP. Knowledge of potential ERCP complications, their expected frequency, and the risk factors for their occurrence may help to recognize and to minimize the incidence and severity of complications. Endoscopists are expected to carefully select patients for the appropriate intervention, be familiar with the planned procedure and available technology, and be prepared to manage any adverse events that may arise. Once a complication occurs, early recognition and prompt intervention may minimize the morbidity and mortality associated with that complication. The overall mortality rate after diagnostic ERCP is approximately 0.2%. Death rates after therapeutic ERCP are twice as high (0.4%-0.5%). Pancreatitis is the most common serious ERCP complication. Appropriate patient selection is instrumental in reducing PEP. Other imaging modalities should first be considered for the. Meta-analyses have shown a statistically significant reduction of PEP with indomethacin or diclofenac given rectally just before ERCP or on arrival at the recovery room. Multiple prospective studies have shown the benefits of temporary pancreatic duct (PD) stents in lowering the risk and severity of PEP in high-risk populations. The use of wire-guided cannulation before contrast injection has been shown in meta-analyses to result in greater success of biliary cannulation and lower risk of PEP by avoiding the injection of contrast into the pancreas. Most ERCP-associated bleeding is intraluminal, although intraductal bleeding can occur and hematomas (hepatic, splenic, and intra-abdominal) have been reported. Hemorrhage is primarily a complication related to sphincterotomy rather than diagnostic ERCP. In a meta-analysis the rate of hemorrhage as a complication of ERCP was 1.3% with 70% of the bleeding episodes classified as mild. Hemorrhagic complications may be immediate or delayed, with recognition occurring up to 2 weeks after the procedure. ERCP with sphincterotomy is considered a higher risk procedure for bleeding, and antithrombotic therapy should be adjusted according to published guidelines. Perforation rates with ERCP range from 0.1% to 0.6%. Three distinct types of perforation have been described: guidewire-induced perforation, periampullary perforation during sphincterotomy, and luminal perforation at a site remote from the papilla. Early identification and expeditious management of a perforation have been shown

to decrease associated morbidity and mortality. Two meta-analyses failed to show the benefit of routine prophylactic antibiotic use in ERCP to prevent infection. Guidelines currently recommend that antibiotic prophylaxis should be considered before an ERCP in patients with known or suspected biliary obstruction in which there is a possibility that complete drainage may not be achieved at the ERCP Significant cardiopulmonary complications are rare, occurring in 1% of cases with an associated fatality rate of 0.07. Cardiopulmonary problems may also arise from medications used for sedation and analgesia. Recent studies with propofol for ERCP have found this drug to have the same efficacy and safety as conventional moderate sedation medications, with fewer associated hypoxemic events

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L-9

How can we decrease the oversight of neoplasie and GI leasion

Not submitted

L-10

Prevention of undernutrition in elderly patients with enteral feeding

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Introduction: The nutritional needs of the elderly are the same as those of an adult. However, they are more difficult to complete due to changes associated with aging. Elderly patients with enteral feeding are more susceptible to undernutrition, requiring a readjustment to the situation of the new way of eating. It requires a nutritional assessment and acquisition of knowledge related to: management enteral feeding, compliance of a nutritional plan and screening of potential complications. From 2004-2012 our Unit has placed 203 Percutaneous Endoscopic Gastrostomy (PEG), and currently there are 55 registered patients (82% above 65 years old). The Nursing staff noticed that elderly patients with enteral feeding showed body weight loss and signs of dehydration. By observing practices and analyzing nursing staff reports, we found that the nutritional assessment was not done, so we couldn't detect cases of undernutrition or risk of undernutrition. After reviewing the literature we realized that this is a subject with few published research papers.
Aims: In this context we developed a project whose main objectives are to prevent undernutrition in elderly patients with enteral feeding and to empower the elderly/caregiver for the management of enteral feeding. The question underpinning the project was "Which nursing interventions promote proper nutrition of the elderly patients with enteral feeding?"
Methods: Methodology project was used. In the diagnostic stage, after we implemented an appropriate nutritional assessment tool for elderly patients, Mini Nutritional Assessment (MNA), a total of 10 elderly patients with enteral feeding were identified:50% were undernourished, 40% at risk of undernutrition and 10% with normal nutritional status.
Strategies were developed with the elderly/caregiver regarding:

- Health education in relation to the management of enteral feeding and fulfilling a nutritional plan;
- Devising a protocol with the service of nutrition and dietetics;
- Quarterly evaluation, recommended by the MNA.

Patients and caregivers were informed about this project and an informed consent was used.
Findings: In the first reassessment it was found that all patients had improved the MNA score and only 13% remained undernourished, 50% at risk of undernutrition and 37% with normal nutritional status.
Summary: Although the percentage of patients at risk of undernutrition remains high, the objectives of this intervention project were achieved, since the MNA score improved in all of them. Through the strategies developed with patients/caregivers, they feel more secure, supported and informed regarding the management of enteral feeding, and also more aware of the importance of maintaining proper nutrition. They have found the implementation of this project very important to their lives and health.
Conclusion: Given the results, elderly nutrition entails a dynamic process that can achieve positive results with the outlined strategies in partnership with the elderly/caregiver, namely improving their nutritional status.
Learning Outcomes + Relevance to Nursing Practice: Nutritional assessment must be carried out as routine, therefore, it is recommended to continue the project, promoting its linkage with others services and the community, giving visibility to quality nursing care and providing appropriate responses to elderly patients.
References:

- Volkert, D. [et al]-Prevalence of malnutrition in orally and tube-fed elderly nursing home residents in Germany and its relation to health complaints and dietary intake. Gastroenterology Research & Practice, 2011, p.1-9.
- Kaiser, M.; [et al] (2010)-Frequency of malnutrition in older adults: a multinational perspective using the Mini Nutritional Assessment. Journal Of The American Geriatrics Society, Vol. 58, n.º 9, (April,2010) p. 1734-1738.

L-11

Oral care in Hepatology nursing: Nurses' knowledge and education

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Introduction: There is a growing body of evidence that suggests improved oral health can help patient outcomes in hospitals (1). Oral inflammation, such as gingival inflammation, periodontitis, and candidiasis, can exacerbate cirrhosis patients' medical status, as cirrhosis is associated with several abnormalities of the body's defense mechanisms (2). Unfortunately, patients with liver cirrhosis and their health care providers are often unaware of the oral complications that can occur and the multiple systems that can be affected. The complexity of care for patients with cirrhosis reinforces the need for knowledge of and education in oral care for nurses. This study was conducted to quantify and qualify the dimensions of oral care in Danish hospitals with a focus on the education, knowledge and practice of oral care.
Aim To describe nurses´ knowledge of and education in oral care; to identify how nurses on gastroenterology and

hepatology wards practice oral care; and to identify the barriers to oral care provision.
Material and Methods A descriptive study was conducted, using a self-administered questionnaire. The questionnaire consisted of 26 closed and open-ended questions. The study involved a sample of 94 nurses employed from 12 different gastroenterology and hepatology wards in Denmark, with a response rate of 73%.
Results Almost all of the participating nurses (98.6%) viewed oral care as an important aspect of nursing care. At the same time, 92.6% of the nurses indicated that oral care for patients with liver cirrhosis is not administered as often as it should be, and that the nurses (91.3%) needed an educational update in their knowledge of oral care. The results indicated that nurses had inadequate knowledge of basic oral health, the equipment used for oral care and medications' adverse effects on oral health. The nurses also reported barriers to oral care. For example, lack of time (76.8%), low priority (59.4%), patients not wanting help (36.2%), and confused or uncooperative patients (14.5%).
Conclusion This study revealed that hepatology nurses experienced a disconnect between viewing oral care as an important part of nursing care yet somewhat incapable or inadequate to provide oral care for cirrhotic patients. These results indicate a need for educational updates in cooperation with dentists and for the promotion of specific oral assessment guides in liver cirrhosis patients.
Learning outcomes

- There is a need for continuing education in oral health and assessment for nursing students and for nurses, and having a dentist as an instructor could be beneficial.
- Raising oral awareness among hepatology nurses could potentially lead to greater quality of life, lower morbidity and mortality and improved nutritional status for patients.

References

1. Adams, R. (1996). Qualified nurses lack adequate knowledge related to oral care of patients on medical wards. *Journal of Advanced Nursing,* 24, 552-560.
2. Arvaniti, V., D´Amico, G., Fede, G., Manousou, P., Tsochatzis, E., Plequezuelo, M., & Burroughs, A. (2010). Infections in patients with cirrhosis increase mortality four-fold and should be used in determining prognosis. *Gastroenterology*, *139*(4), 1246-1256.

L-12

The management of psychiatric patients in the endoscopy unit

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Background: Patients with psychiatric diseases are a complex group of patients as the approach and treatment is different from non-psychiatric patients and also because they use medications that may interfere with the preparation for the endoscopy and with the anaesthesia.
Objectives: The aim of the study was to examine the proper routing of patients from making the appointment to dismissal, to study the way of providing optimal care, to prepare nurses in the endoscopy unit to deal with these patients and to get psychiatric personnel acquainted with the endoscopic procedures and information needed for a safe preparation and a safe sedation.
Methods: A working group was formed consisting of a gastroenterologist, endoscopy nurses, a psychiatrist, a psychiatric nurse consultant, anaesthesiologist and nurse assistant anaesthesiologist, a pharmacist and desk personnel. Their task was to study the informed consent procedure, the quality of patient information provided, the conduct of the patient before, during and after the procedure, the effects of the sedation and the problems after recovery. This was done by following the patient by each speciality. The aim was to start with 10 patients. The interference of psychiatric medication with sedatives and analgesics and with bowel preparation were discussed with the anaesthesiologist and with the pharmacist
Results: The preliminary results of 7 patients are reported here, by October the total of 10 patients will be reported. The 7 patients (4 females) with a mean age of 52.7 ± 11.6 (range 35-70) years were referred for colonoscopy in 5 cases and for cystoscopy in 2. A bipolar disorder was present in 2, schizophrenia in 4 and one suffered from intellectual disability with disordered behaviour. Most of them had ASA status II (ASA I 1 patient, ASA II 5 patients, ASA III 1 patient). All patients received propofol sedation and were treated as out-patients. Only 3 patients were accompanied on arrival at the department and 5 were accompanied on their way home. Two patients were not cooperative during the examination. After the examination all but one stayed 1 hour in the recovery room, the 7th patient stayed 90 minutes. Whereas the other patients were fully awake, this patient remained sleepy and drowsy. The period in the recovery room was complicated by severe agitation in 4 patients, by moderate agitation in one. Two patients were not agitated at all. Some, although incomplete, information about the psychiatric background was present in 5 patients. The medication list was not present in 5 subjects.
Conclusions: Although only a few problems were encountered before and during the examination, the main problems occurred afterwards during the recovery phase when patients were awake and agitated. At that moment insufficient written information about the disease and especially their medication use was present to manage these patients satisfactorily. These points for improvement of care, together with the results of a presumed interference of different medications, will result in a guideline for the management of psychiatric patients in the endoscopy unit.
Learning Outcomes + Relevance to Nursing Practice:
This patient category continuous guidance before, during and after the examination by trained nurses. You delve into another's field so you know how to act.

L-13

Danish nationally certified nurse endoscopists are qualified to undertake colonoscopy at specialist level

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Introduction: In Denmark a National certified education for nurse endoscopists has been established in 2012. The nurses are trained to undertake colonoscopies, and this is the first Danish study to acquire evidence about nurses who are nationally certified.
Aims: The purpose of the research was to compare skills and results of the endoscopists and to include experiences from patients. The patients were asked about these main

topics: Dialogue with the endoscopist before and after the examination and pain experience during the examination.
Methods: Prospective cohort study. The aims of the research were achieved by employing a patient satisfaction study and including quantitative medical statistics on complete/incomplete colonoscopies and complication rates from the Endoscopy Reporting System Endobase. The data represents patients who agreed to participate in the study from December 10th 2012 to April 13th 2013. The criteria for selection were adult outpatients booked for colonoscopy. Criteria for exclusion: Senile dementia. The study was undertaken in Aabenraa Hospital, Denmark. Lists for colonoscopy were booked in advance, and it was random, whether the endoscopist was a nurse or a doctor. The choice of using sedatives or not, was made by the endoscopist in concert with the patient before or during the examination. The sedatives used were Midazolam and Fentanyl.
Results: There was no significant difference in the number of patients undertaken by very experienced and less experienced nurses and doctors, and there was no significant difference in completion rate (Doctors completed 88.9%. Nurses completed 92%). 5.3% of the incomplete colonoscopies undertaken by doctors were interrupted because of pain compared to 1.3% when undertaken by nurses. There were no severe complications. A total of 384 questionnaires were available for analysis. 99-100% of the patients agreed in having a satisfactory thoroughly dialogue with the endoscopist before and after the examination, whether the endoscopist was a nurse or a doctor. Patients who were sedated and patients who were not sedated agreed equally in having an acceptable pain experience, and there was a small difference in the total pain experience whether the endoscopist was a nurse or a doctor. Patients felt less pain if the endoscopist was a nurse: No pain (nurse 18.13%, doctor 13.87%), pain (nurse 77.78%, doctor 82.66%).
Summary and Discussion: The patients were equally satisfied whether the endoscopist was a nurse or a doctor, and the quantitative medical statistics showed, that the nurses had a slightly higher completion rate and less incomplete examinations because of pain. The nurses undertook colonoscopy less painful. Weaknesses: There were no statistics comparing pathology detection rates and treatment skills.
Conclusion: Danish nationally certified nurse endoscopists are qualified to undertake colonoscopy at specialist level.
Learning outcomes + relevance to Nursing Practice: Patients were satisfied whether a nurse or a doctor undertook the colonoscopy. Danish nurses are qualified to undertake colonoscopies in diagnostic screening programs as planned in 2014.
References:

1. Van Putten, Paul G 683e: Nurse endoscopists Performing Colonoscopy: A Prospective Study on Quality and Patient Experiences. Gastrointestinal Endoscopy 2010; 71:5 AB130-AB130
3. J Williams, I Russel, et al. What are the clinical outcomes and cost-effectiveness of endoscopy undertaken by nurses when compared with doctors? A Multi-Institution Nurse Endoscopy Trial (MINuET). Health Technology Assessment 2006; Vol. 10: No. 4

L-14

Nurse led review of colonoscopy surveillance referrals right patient - right time

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Introduction The increased demand for diagnostic and follow-up surveillance colonoscopy procedures has resulted in a need to validate colorectal surveillance referrals. A protocol was developed to allow a nurse-led review based on current national guidelines with the aim of ensuring that patients are seen appropriately and at the right time.
Method: A protocol was developed, outlining the process for a nurse-led review, of planned surveillance colonoscopy referrals. All referrals were reviewed with the hospital notes; with all relevant information, including changes in health and medication, documented on a proforma. Referrals with no change followed the pathway as originally recommended. Referrals which did not meet the guidelines (identified as no/unsure) were reviewed by Consultant Colorectal Surgeons. After Consultant review, the patient and GP were notified of any planned changes by letter.
Results: A total of 356 surveillance referrals were reviewed from April 2012 to the end of March 2013. Of these, 153 referrals were appropriate and 203 were identified as requiring changes to the planned care. Of the 203 where changes had been recommended, 142 were removed from the waiting list, 28 had their planned date changed and 33 patients had no changes made to their planned care, following clarification regarding family history.
Other patient concerns were identified such as: age, mental capacity, other health problems and patient choice. Administration issues were identified regarding documentation such as: old versions or incomplete /illegible referrals, and family history not being included in initial consultation documentation
Conclusion: Using a protocol based on current national guidelines we have demonstrated that nurses are able to identify changes to planned surveillance colonoscopy referrals. This has released capacity to patients needing colonoscopy; utilising resources appropriately and ensuring timely surveillance colonoscopy for the right clinical reasons.
In our Trust 142 patients have been removed from the waiting list for surveillance colonoscopy which has released capacity equivalent to 29 colonoscopy lists. Further changes to the process could enhance patient care by establishing nurse-led telephone or face to face clinics, where health concerns could be discussed and assessed. Improvements to documentation and electronic databases which include detailed family history of colorectal cancer will help to inform decision making.
References

- Cairns SR, Scholefield JH, Steele RJ, et al: Guidelines for colorectal cancer screening and surveillance in moderate and high risk groups (update from 2002). *Gut 2010; 59:666–90.Gut 2010 59: 666-689*
- S Sarkar, U Duffy, N Haslam Improved clinical outcomes and efficacy with a nurse-led colonoscopy surveillance service *Frontline Gastroenterology* 2012;3:16–20
- NICE clinical guideline 131 (2011) Colorectal cancer: The diagnosis and management of colorectal cancer
- BCSP Adenoma Surveillance Guidance Note No 1Version 1 September 2009

L-15

Colonoscopy: Looking for the best insertion technique

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Introduction: Coecal intubation rate (CIR) and coecal intubation time (CIT) are considered important indicators of colonoscopy quality and both can be affected by the colonoscope insertion technique utilized[1,2].

Aims: To assess and compare the CIR and CIT in three different colonoscopy insertion techniques.

Methods: 539 consecutive patients undergoing colonoscopy procedures from February 2013 to April 2013 in two endoscopic units were included in this cohort-study. Three different colonoscope insertion techniques were randomly used: 1) a 2-hands technique performed by the endoscopist alone; 2) a 4-hands technique in which the endoscopist is assisted by a nurse who inserts the endoscopic instrument and monitors its advancement; 3) a 4-hands technique combined with an abdominal compression sequence (ACS) performed by a second nurse/assistant. The compression sequence was: right iliac fossa, epigastrium downwards, right upper quadrant-epigastrium, right upper quadrant. ANOVA + Bonferroni Test, Pearson's chi-squared Test, univariate and logistic regression analysis were used.

Results: 539 colonoscopies were performed (306 M - 56.8%; 233 F - 43.2%; mean age 60.83±9.85 years; mean BMI 26.85±4.47; mean abdominal circumference 95.6±14.54 cm; CIR 98.5%; average CIT 6 min 36 sec±4 min 22 sec). 363 colonoscopies (69.2%) were performed using the 2-hands technique, 66 (12.2%) with the 4-hands technique, and 100 (18.6%) with the 4-hands +ACS technique. CIR and CIT were, respectively: 98.8% and 6 min 46 sec±3min 53 sec for the 2-hands technique, 97% and 8 min 50 sec ± 7 min 1 sec for the 4-hands technique, 99% and 4 min 29 sec±2 min 37 sec for the 4-hands +ACS technique (2-hands vs 4-hands+ACS, $p<0.0001$; 4-hands+ACS vs 4-hands, $p<0.0001$, 2-hands vs 4-hands, $p<0.001$). At univariate analysis the average CIT (adjusted for sex, age, weight, BMI, endoscopist, colon cleanliness, and type of sedation) was correlated to Sex ($p<0.0001$), Endoscopist ($p<0.0001$) and to the specific endoscopic technique used ($p=0.006$). A position change was necessary in 31.8% (148 pt) for the 2-hands technique, in 74% (49 pt) for the 4-hands technique and in 68% (68 pt) for the 4-hands+ACS technique (χ 2=48.96, $p<0.0001$). By logistic regression analysis, CIT In female patients was not influenced by age, weight and BMI when the 4-hands + ACS technique was used, whereas a correlation was found with the other 2 techniques.

Summary and discussion: In our study, the 4-hands technique + ACS produced a lower CIT when compared with the other techniques used and in female group wasn't influenced by age and physical features. The four hands technique is less considered by endoscopists, however if conducted with our ACS could give excellent results. The next step would be to apply our ACS also in the 2-hands technique.

Conclusion: the 4-hands technique + ACS seems to be effective especially in women where is well known that colonoscopies are more difficult to perform than man.

Learning outcomes + relevance to nursing practice: trained nurses in the ACS procedure could contribute to achieve the highest colonoscopy success rate and in shorter time.

References:

- [1]Prechel, J. A. et al. Gastroenterology Nursing 2009;32(1):27-30.
- [2]Cotton, P. B., Williams C. B., Practical Gastrointestinal Endoscopy.

L-16

COPD illness and Bronchoscopy

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Chronic obstructive pulmonary disease (COPD) is the leading cause of global morbidity and disability. By 2020 it is predicted to become the third greatest cause of death worldwide. As pulmonary function deteriorates the risk of alveolar hypoxia and consequent hypoxemia increases, patients with COPD undergo flexible bronchoscopy for a variety of reasons. Firstly, they have been typically exposed to cigarette smoking, a major risk factor for malignancy and a predictive factor of chronic inflammation and recurrent infectious diseases. Secondly, interventional bronchoscopy has evolved as a treatment option for tumorous stenosis of the central airways to reopen malignant obstructions. Last not least, the treatment of heterogenous emphysema in COPD itself includes bronchoscopic lung volume reduction (LVRS).

The prevalence of hypoxemia among COPD patients remains uncertain. In large general COPD populations, severe hypoxemia is relatively uncommon, with only 2% of 6000 participants in the UPLIFT trial being prescribed supplemental oxygen. Conversely, over 80% of the patients with advanced disease enrolled in the National Emphysema Treatment Trial (NETT) were using some form of oxygen therapy. The principal contributor to hypoxemia in COPD patients is ventilation/ perfusion (V/Q) mismatch resulting from progressive airflow limitation and emphysematous destruction of the pulmonary capillary bed. Patients with a predominantly emphysematous phenotype have increased ventilation of poorly perfused lung units (high V/Q ratio), and hence increased physiological dead space. Conversely, subjects with a significant degree of airway disease are more likely to have a low V/Q ratio, with heterogeneous alveolar hypoventilation, substantial perfusion of under-ventilated areas, and consequent physiological shunt.

Obesity is increasingly prevalent in COPD and may contribute to abnormalities in gas exchange with relative hypoxemia. Risk of sleep-disordered breathing and consequent nocturnal hypoxemia correlates with the degree of obesity and can result in alveolar hypoventilation with chronic hypercapnic respiratory failure. Dysregulated ventilatory control and chronic airflow obstruction is another relevant fact for persistence of hypoxemia in COPD patients. Alveolar hypoxia is an important contributory factor to the development of pulmonary hypertension in this cohort. The exact prevalence of pulmonary hypertension in COPD remains uncertain, but it appears to be relatively common in moderate to severe disease and increases in prevalence with disease severity. Also skeletal muscle dysfunction is an important consequence of COPD and hypoxemia. The disuse atrophy, malnutrition, chronical corticosteroid usage and hormonal dysregulation appear to

interact in the generation of skeletal muscle dysfunction in COPD.
Propofol has been established as a reliable method for sedation in patients undergoing flexible bronchoscopy in chronic obstructive pulmonary disease, but there are scarce data on its safety in patients with COPD. Therefore a randomized, Placebo-controlled trial demonstrated no benefit of inhaled short-acting-agonists prior to bronchoscopy in COPD. The inhalation of salbutamol neither improved safety nor prevented decrease in FEV1, because of the lack of relevant hyperresponsiveness of the bronchial system in COPD.
In another study about safety of performing fiberoptic bronchoscopy (FOB) in critically ill hypoxemic patients with acute respiratory failure, one-third of the FOB procedures were complicated by inducing a drop in PaO2 of up to 30% with return to baseline in 2 hours. Invasive ventilation/ intubation was required in 15% of all cases. No correlation between duration of bronchoscopy, investigation of BAL. COPD and immunosuppression were independently associated with the need for invasive ventilatory support.

L-17

Bronchial Thermoplasty in Severe Asthma: Clinical Data, Indication and Procedure

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Bronchial thermoplasty (BT) is a bronchoscopic procedure which delivers thermal energy to reduce the excessive airway smooth muscle responsible for airway constriction in severe persistent asthma in patients 18 years and older whose asthma is not well controlled with inhaled corticosteroids and long-acting beta-agonists patients. In a double-blind, sham-controlled clinical trial in patients with severe persistent asthma, BT was shown to be superior to the Sham in improving asthma-related quality of life and reducing severe exacerbations, emergency room (ER) visits and days lost from work/school and other daily activities due to asthma.
The procedure is typically done under moderate sedation in the hospital outpatient clinic and the patient returns home the same day. In the period immediately following BT, there is an expected increase in the frequency and worsening of respiratory-related symptoms, which are of the type expected following bronchoscopy in patients with asthma. These events typically occur within a day of the procedure and resolve on average within 7 days with standard care.
The treatment is performed across 3 separate bronchoscopic sessions, each scheduled approximately 3 weeks apart and treating a different section of the lung. Each session lasts about 30 to 60 minutes, and patients are discharged home once stable lung function is achieved.
Clinical Results – Long-Lasting Control for Severe Asthma: The Asthma Intervention Research 2 (AIR2) Trial evaluated the safety and effectiveness of the Alair® Bronchial Thermoplasty System in a double-blind, sham controlled clinical trial in patients with severe asthma, and demonstrated that BT resulted in improved asthma quality of life, as well as in the following clinically meaningful benefits over sham at one-year post-treatment: 1) 32% reduction in asthma attacks, 2) 84% reduction in ER visits for respiratory symptoms, and 3) 66% reduction in days lost from work/school or other daily activities due to asthma. In addition, at one year after treatment, fewer BT-treated patients reported respiratory adverse events than patients treated with a sham procedure.
Five-year follow up of the BT treated patients in the AIR2 Trial have demonstrated that the reductions in severe exacerbations and ER visits seen during the first year after BT were maintained out to at least five years with no increase in respiratory adverse events.
Conclusion:
A single BT treatment comprised of 3 bronchoscopy procedures provides long-term benefit on patients with severe asthma. BT has become an important addition to our treatment armamentarium for patients with severe persistent asthma who remain symptomatic despite taking inhaled corticosteroids (ICS) and long-acting beta-agonists (LABA).
References

- Castro M, et al, for the AIR2 Trial Study Group. Effectiveness and safety of Bronchial Thermoplasty in the treatment of severe asthma: a multicenter, randomized, double-blind, sham-controlled clinical trial. Am J Respir Crit Care Med. 2010;181:116-124.
- Pavord ID, et al, for the RISA Trial Study Group. Safety and efficacy of bronchial thermoplasty in symptomatic, severe asthma. *Am J Respir Crit Care Med*. 2007;176(12):1185-1191.
- Wechsler ME et al, for the AIR2 Trial Study Group. Bronchial thermoplasty: Long-term safety and effectiveness in patients with severe persistent asthma. J Allergy Clin Immunol. 2013 Aug 30. pii: S0091-6749(13)01268-2. doi: 10.1016/j.jaci.2013.08.009. [Epub ahead of print]

L-18

Complications and emergency situations in bronchoscopy

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Flexible bronchoscopy is increasingly being performed under sedation without need for intubation. Risks associated with flexible bronchoscopy under sedation can be divided into two broad categories: sedation-associated and intervention-associated.
Patients with known cardiovascular problems (e.g. recent myocardial infarction, instable angina pectoris), disorders of the upper airways (e.g. partial obstruction of the trachea) or lower airways (e.g. COPD, lung fibrosis) or immune-compromised patients have a higher inherent risk for complications during flexible bronchoscopy.
Local anaesthesia with lidocaine can lead to nausea and vomiting, laryngospasm or bronchospasm, allergic reactions and seizures and cardiac arrhythmias in case of overdose. The most frequently encountered side effects of sedatives (e.g. propofol, midazolam) are hypoxemia and hypotension. Hypoxemia is due to obstruction of the upper airways, alveolar hypoventilation or increase in ventilation-perfusion mismatch. However, serious complications, e.g. need for intubation, need for transfer to intensive care unit or even death, are rare.
The management of hypoxemia includes its prevention and early detection. Therefore, continuous monitoring using pulse oxymetry, ECG and blood pressure measured at regular intervals is mandatory. Moreover, oxygen should be given routinely to all patients undergoing flexible bronchoscopy. In case of hypoxemia, head-tilt or chin-lift, increasing the oxygen supply and insertion of a naso-pharyngeal or oro-pharyngeal airway are usually sufficient to correct hypoxemia. Moreover, the bronchoscope should

be drawn back into the trachea or completely removed. In case of persistent hypoxemia, bag ventilation or the application of a reversal agent (e.g. Flumazenil) must be considered. It is important to note that one should be aware of the fact that there is no reversal agent for propofol! If these interventions are insufficient, the patient must be intubated.
Intervention related complications include bleeding and pneumothorax (especially after transbronchial biopsy). The risk of bleeding is increased in case of thrombocytopenia, coagulation disorders, pulmonary hypertension and in patients under clopidogrel or related compounds. The latter three conditions represent an absolute contraindication for performing transbronchial biopsies.
In summary, flexible bronchoscopy is safe if trained personnel are performing the procedure, monitoring is adequate, contra-indications for performing bronchoscopy or certain interventions are respected and a protocol is followed in case of imminent complications such as hypoxemia.

References

- Stolz D, Kurer G, Meyer A, Chhajed PN, Ortmann M, Pflimlin E, Strobel W, Tamm M. Eur Respir J. 2009 Nov;34(5):1024-30
- Chhajed PN, Glanville AR. Clin Chest Med. 2003 Sep;24(3):511-6. Review.
- Grendelmeier P, Tamm M, Ortmann M, Pflimlin E, Stolz D. Eur Respir J. 2013 Jul 30. [Epub ahead of print]

L-19

Application of oxygen in patients with pulmonary disease

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Introduction: Application of LTOT in patients with pulmonary disease plays an important role in medical treatment. For quality nursing care it is necessary to have a knowledge of guidelines in application of oxygen. Oxygen is in the first place for therapeutic treatment, but in inadequatley application can lead to unwanted complications.
Aims: When applying LTOT nurse will know how to: (1) recognize the signs of hypoxia, changes in mental status and identify abnormal values in ABG analysis, (2) apply oxygen therapy without the risk of harmful consequences for the patient.
Objective: Disorders of gas exchange and ventilation perfusion in pulmonary patients lead to an increased concentration of CO_2 and/or lack of O_2. When assessing a patient's respiratory status is essential to monitor signs of hypoxia, mental status, and record any change in ABG. Routine component of pulmonary rehabilitation is a education of a patient how to: reduce risk factors, regularly use medication, minimize dyspnea, recognizing and treating complications, using LTOT.
Learning/Outcomes: Nurse recognizes changes in ABG analysis, recognize the signs of hypoxia and properly applies oxygen therapy.
Conclusion: The most important is to educate the patient and family in the application of LTOT. Is recommended to implement plan for daily activities and to eliminate all the factors that lead to the deterioration of the elimination of gas exchange. It is important to emphasize the need for regular control. Observation worsening signs and symptoms of this disorder and to react promptly. With the knowledge in application of LTOT in patients with pulmonary disease we enlarge chance for survival, reduce consequences of lack of oxygen in vital organs and increase quality of life.

Keyword: Long-term oxygen therapy (LTOT), Arterial partial pressure of oxygen (PaO2), Partial pressure of carbon dioxide (PaCO2).

References

1. Ackley, B.J. Impaired Gas exchange. Nursing Diagnosis Handbook, 9th Edition.
2. Galanes, S. Gas Exchange, Impaired - Ventilation or Perfusion Imbalance. Nursing Diagnosis Care Plans, 4 e.
3. Impaired Gas Exchange — COPD. Nursing Care Plans (NCP).
4. Doenges, M. E., Moorhouse, M. F., Murr, A. C. Nurse's pocket guide, diagnoses, prioritized interventions, and rationales. (12 ed.). F A Davis Co, 2011.

L-20

Diverticulitis - diagnosis and therapy

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Spectrum of diverticular disease: Besides asymptomatic diverticulosis which is mostly an incidental finding the spectrum of diverticular disease includes symptomatic diverticulosis (abdominal symptoms, no inflammation), acute uncomplicated or complicated diverticulitis, recurrent diverticulitis and some distinct subtypes like diverticular bleeding (with or without diverticulitis) or segmental colitis. Of all patients with diverticulosis, some 20 to 25% develop diverticular disease.
Diagnosis of acute diverticulitis: Acute diverticulitis is characterized by the trias left-sided lower abdominal pain, fever and systemic inflammatory signs as expressed by elevated ESR or CRP and leucocytosis. It may come along with constipation and diarrhea and a palpable mass or abdominal defence. Acute diverticulitis is clearly based on clinical and laboratory findings, and additional diagnostic techniques are only necessary to verify the suggestive diagnosis and to identify complications and the stage of disease as described by the classification of Hansen and Stock.
Therapy of acute diverticulitis: Acute uncomplicated diveticulitis (Hansen and Stock I and IIA) is treated by antibiotics and abstinence from oral food. Depending on the severity of symptoms antibiotics can be given orally or intravenously, the strength of fastings is relative, and the treatment can be performed as an out- or inpatient. In case of Hansen and Stock IIA elective surgery is recommended. Nowadays, mesocolic or retroperitoneal abscess (Hansen and Stock IIB) is usually treated by early elective surgery following interventional abscess drainage. Free perforation (Hansen and Stock IIC) requires emergency surgery.
Management of recurrent acute diverticulitis: For decades, surgery was recommended not later than after the second relapse of acute uncomplicated diverticulitis. Recently, it has become evident that recurrent diverticulitis can be safely managed on a conservative basis. The individual decision making should be done on an interdisciplinary discussion between gastroenterologist and surgeon and by considering individual risk factors like comorbidities or immunodeficiency.
Diverticular bleeding and endoscopy: Acute diverticular bleeding stops spontaneously in some 90%. Therefore, endoscopic hemostasis procedures are not necessary in the majority of cases. Colonoscopy is not a standard diagnostics in acute diverticulitis (except lower GI bleeding). However, elective colonoscopy should be

recommended as a screening issue if not performed in the past.

L-21

Faecal transplantation

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The human gastro-intestinal tract contains about 100 trillion microorganisms, mostly comprising of bacteria. The composition of these bacteria; also known as the microbiota is influenced by genetic and environmental factors and remains relatively stable during life. The microbiota plays an important role in food digestion, production of vitamins (K and B) and is the first line of protection against pathogens and modulates host immunity. Analyses of the microbiota gives us insight is the stability of the microbiota, and etiology of chronic diseases. An altered composition of the microbiota was described in several diseases and conditions: Crohn's disease, ulcerative colitis, Irritable bowel syndrome, Clostridium difficile infection, colorectal cancer, allergy, Celiac disease, Diabetes and obesity[1]. In Crohn's disease and ulcerative colitis a decrease of diversity was described [2,3]. In Clostridium difficile, a strong decrease in diversity was found[4].

One of the options to modulate the microbiome of the host is by infusion of a suspension of donor faeces; also known as faecal transplantation (FT) or faecal infusion. In 1958, the first patients suffering from a pseudomembranous colitis were treated with donor faeces[5]. Since the 90's, FT gained new interest and more recent data is available. A randomized controlled trial in Clostridium difficile showed that 13 of 16 patients (81%) in the infusion group had resolution of C. difficile-associated diarrhea after the first infusion with donorfaeces.[6] FT also has the capability of influencing the metabolism in obesity; a trial on 18 obese subjects showed an improvement in peripheral insulin sensitivity 6 weeks after allogenic microbiota transplantation from 26.2 to 45.3 µmol/kg/min ($P<0.05$)[7]. Case series on patients with IBD suggest that the majority experienced a reduction of symptoms (19/25), cessation of IBD medications (13/17) and disease remission (15/24)[8]. Trials on FT in ulcerative colitis and diabetes are ongoing. No severe side effects were described in any reports on this experimental therapy.

In conclusion, faecal transplantation is an upcoming therapy for different conditions, seems to be a safe therapy and might be the future for patients suffering from other conditions than only Clostridium difficile.

References:

1. De Vos, W. M. & De Vos, E. a J. Role of the intestinal microbiome in health and disease: from correlation to causation. *Nutrition reviews* 70 Suppl 1, S45–56 (2012).
2. Kaser, A., Zeissig, S. & Blumberg, R. S. Inflammatory bowel disease. *Annual review of immunology* 28, 573–621 (2010).
3. Lepage, P. *et al.* Twin Study Indicates Loss of Interaction Between Microbiota and Mucosa of Patients With Ulcerative Colitis. *Gastroenterology* 141, 227–236 (2011).
4. Grehan, M. J. *et al.* Durable alteration of the colonic microbiota by the administration of donor fecal flora. *Journal of clinical gastroenterology* 44, 551–61 (2010).
5. Eiseman B, Silen W, Bascom GS, K. A. Fecal enema as an adjunct in the treatment of pseudomembranous enterocolitis. *Surgery* 134, A7 (1958).
6. Van Nood, E. *et al.* Duodenal infusion of donor feces for recurrent Clostridium difficile. *The New England journal of medicine* 368, 407–15 (2013).
7. Vrieze, a *et al.* Transfer of Intestinal Microbiota from Lean Donors Increases Insulin Sensitivity in Subjects with Metabolic Syndrome. *Gastroenterology* (2012).doi:10.1053/j.gastro.2012.06.031
8. Anderson, J. L., Edney, R. J. & Whelan, K. Systematic review: faecal microbiota transplantation in the management of inflammatory bowel disease. *Alimentary pharmacology & therapeutics* 36, 503–16 (2012).

L-22

Probiotics for intestinal diseases

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The human gastrointestinal (GI) tract is populated by a complex community of microorganisms, which play a pivotal role in the maintenance of health and the development of disease. About 10^{13} to 10^{14} microbes live within our GI tract outnumbering our own body cells at least by the factor of 10. Current knowledge indicates a crucial role for the GI microbiota in extracting nutrients from the diet, thereby influencing host metabolism and body weight. The microbiota strongly interacts with the GI immune-system, being essential for its maturation and correct function, furthermore they are crucial for the GI tract epithelia, including epithelial homeostasis and renewal. This has led to a view of humans being "super-organisms" composed of "human cells" and microbial cells. Disturbances of the equilibrium of the human microbiota (called dysbiosis) have been linked to a growing list of health problems, including intestinal infections, obesity, diabetes, inflammatory bowel diseases (IBD), functional bowel disorders, auto-immune diseases, cancer and even neuro-psychiatric diseases. One way to treat diseases linked to dysbiosis in the intestinal tract is the administration of living microorganisms that exhibit a spectrum of beneficial effects to the human body. These microorganisms, termed as probiotics mainly belong to the families of lactobacillaceae and bifidobacteria, should shift the composition of the microbiota to a more physiologic balance.

Although the concept of probiotic therapy has been developed and propagated more than 100 years ago, the clinical effectiveness of probiotics have been questioned for a long time by many experts. In recent years growing evidence has been published demonstrating an efficacy of probiotics for the treatment of gastrointestinal infections, inflammatory bowel diseases and functional bowel disorders. The increasing interest of the scientific community in the gastrointestinal microbiome will result in new developments in the area of probiotics and will lead to new indications for this therapeutic concept.

L-23

Developing frameworks in Endoscopy and Gastroenterology – the good, the bad and the useful

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Frameworks provide needed quality assurance for the public, as well as support for the professional in practice development. (Eruat,1994). In 2012 Gastroenterology Nursing in New Zealand developed an Endoscopy

Knowledge and Skills Framework (EKSF) for Registered Nurses, Enrolled Nurses, Health Care Assistants and Sterilisation Technicians.
The need for this tool was highlighted by a combination of the outcomes in the "DHB Endoscopy Services Summary Report" and the preliminary results from the Endoscopy Quality Improvement Project. A national rollout of the EKSF is planned for 2014 and is one of the work streams in the National Endoscopy Quality Improvement Programme (NEQIP). Preparation before launching into the development of a framework is vital. The first step could be to understand the reason/s for developing the framework including a baseline assessment of the current state and identifying any issues and challenges. Decide what you want to achieve at the beginning i.e. what benefits will be realised by developing the framework including thinking about sustainability in the future and patient care.
Next step could be to decide who should be included in the development of the framework and who should be informed along the way. The ongoing ownership or governance of the framework is an early decision to ensure inclusion of these people or groups in the process. Those who will provide a mandate for it's use in a unit, region and/or country and most importantly those who will use the framework in their roles could also be involved.Projects such as the development of a framework are frequently completed by a group of enthusiastic people afterhours. Thought could be given to funding someone to lead the work. This person could have an understanding of the context of Gastroenterology/Endoscopy, nursing, education and competence assessment.
There are multiple established frameworks to choose from. This could include a framework with in the country or the specialty overseas. Engaging with a wide group (as previously decided) throughout the process could assist with the pick up of the tool once finished and add to it's usability in services. Evidence should provide the basis for the detail in the framework and a step wise process of development could be used with frequent feedback to assist in linking the evidence based practice to the real world practices in the services. A clear implementation plan for the framework may include the trial in a small number of services to assess it's usability and make any changes prior to a wider roll out. Thought could be given to the reassessment of the framework at intervals in the future to ensure it's continued relevance.

Reference

Eraut, M. (1994). Developing Professional Knowledge and Competence. Oxon: Routledge Falmer.

L-24

Team time out - one year experience

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Background: System failures, human errors and problems with medical devices and medication can all lead to potentially preventable clinical incidents in a heath care facility. A clinical incident is defined as: 'an event or circumstance resulting from health care which could have, or did lead to unintended harm to a person, loss or damage, and/or a complaint'. Reducing risks will increase the safety of the patient.
Aim: The aim is to prevent the following key principles; wrong patient, wrong procedure and wrong site incidents. It is important to establish an active involvement and effective communications between the patient and all member of the Endoscopy unit to ensure that the correct procedure is performed on the correct patient.
Methods: It is a prerequisite to perform a good time-out to have data of the patient before the procedure, because the time-out is the final safety check. We have started two years ago with the time-out procedure at our department of Endoscopy. The checklist is multidisciplinary, every staff member (doctors, nurses, supporting staff) are all responsible for completion the checklist. It is important to use a standard checklist, and to tune who is taken the time-out and what's the role of the patient, who is involved, what is the best moment for the time-out. How much time do you needed.
Results: A time out procedure could contribute to optimization the safety, an update after a couple of years performing the time-out.
Summary and discussions: Is the checklist intended as a tool for use by clinicians interested in improving the safety and reducing unnecessary death and complications or a device of official policy.
Conclusion: A 'culture of safety' is required in the organisation, to reduce risks. With the introduction of the time-out procedure has introduced a simple security system. This simple appealing concept has its origin from the aviation and international knowledge exchange helped the procedure to get accepted.

Reference:

Quality Improvement and Management- Joint Commission International
Effect of a Comprehensive Surgical Safety System on Patient Outcomes Eefje N. de Vries, M.D., Ph.D., Hubert A. Prins, M.D., Ph.D., Rogier M.P.H. Crolla, M.D., Adriaan J. den Outer, M.D.,* George van Andel, M.D., Ph.D., Sven H. van Helden, M.D., Ph.D., Wolfgang S. Schlack, M.D., Ph.D., M. Agnès van Putten, B.Sc.,Dirk J. Gouma, M.D., Ph.D., Marcel G.W. Dijkgraaf, Ph.D., Susanne M. Smorenburg, M.D., Ph.D., and Marja A. Boermeester, M.D., Ph.D., for the SURPASS Collaborative Group†

L-25

Implementation of the European curriculum in sedation in GI Endoscopy

Ulrike Beilenhoff, Germany

Introduction: Sedation management in GI endoscopy varies between European countries according to different legal situations and different national health care systems:

- For more than 30 years, benzodiazepines either combined with opioids or not, have been used as standard sedation regimen for gastrointestinal (GI) endoscopy.
- In the majority of European countries, endoscopists administer sedation with support of endoscopy nurses, while in some countries like France only anesthesiologists administer any kind of intravenous sedation.
- For over 10 years, the short-acting hypnotic Propofol is increasingly being used in GI Endoscopy.
- Many studies have shown that propofol sedation administrated by experienced, trained endoscopists and nurses are safe (1).
- Due to national legal restrictions, non-anesthesiologist administration of propofol (NAAP) has been established in a few European countries only, including Austria, Denmark, Germany, Greece, the Netherlands, Sweden and Switzerland (2).

Irrespective of the type of sedation used in GI Endoscopy, the same structure and process quality are required to ensure same level of safety for all patients undergoing endoscopic procedures. Sufficient number of staff as well as individual qualifications are key issue to ensure the safety of patients. Specific knowledge and skills on risk assessment, sedation, recovery, and resuscitation are necessary not just for physicians, but also for supporting nurses (2).

Gastroenterology and anesthesiology societies demand specific training for staff administration sedation in GI endoscopy and especially for NAAP. Based on European and national guidelines, ESGE and ESGENA developed a European Curriculum on Sedation in GI Endoscopy (2).

Aims of the European Curriculum on sedation in GI Endoscopy are

- To expand specific knowledge, competence, and skills necessary for sedation and management of complications in order to ensure patient safety
- To set standards for the training of non-anesthesiology staff who administer sedation in GI endoscopy
- To support individual departments, institutes and societies to develop and updating local and/or national guidelines and curricula

Method: The ESGE-ESGENA-Curriculum is based on the consensus of physicians and nurses who have been involved in the development of European and national guidelines, national curricula and the organisation of national courses.

Traget group:

- Non-anesthesiologist physicians working GI endoscopy
- nurses and other allied professionals involved in sedation and recovery in GI endoscopy

Course concept: The European curriculum recommends a course concept covering:

- A pre course reading
- A 3-day introductory course combining theory and practical training including simulator training and refreshing competence in life support (e. g., basic life support [BLS] or advanced cardiac life support [ACLS], according to national law)
- 2 weeks clinical training in the own department or a training centre under the supervision of experienced tutors including the documentation of 30 cases.
- Summative assessment after the 2 weeks clinical training by at least three supervisors.

Course content

- Pharmacology, structural and personnel requirements
- Peri-endoscopy management of patient monitoring and sedation
- Complication management
- Recovers and discharge
- Documentation
- Quality assurance
- Legal aspects

Implementation of courses: National law and recommendation for sedation in GI Endoscopy vary from country to country and has to be taken into account. National guidelines and curricula should be developed by a multidisciplinary working group of experts, educators and official representatives of relevant bodies. This include gastroenterologists, endoscopists, anesthesiologists, nurses, lawers/legal advisers, educators and health care providers

The implementation of courses should also have an multidisciplinary approach as courses should be recognised by official bodies and national societies. Courses need to be evaluated by students, teachers and organisers. The effect of structured courses can be evaluated by individual assessment of student or surveys. The individual assessment students showed significant learning curves, increased competencies and safe practice (4). A national surveys showed the positive effect of courses on structure, process quality in endoscopy (5). The European Curriculum has been implemented with variations in different countries.

References:

1. Rex DK, Deenadayalu VP, Eid E et al. Endoscopist-directed administration of propofol: a worldwide safety experience. Gastroenterology 2009; 137: 1229–1237
2. Dumonceau JM, Riphaus A, Aparicio JR et al. ESGE-ESGENA-ESA Guideline: Non-anesthesiologist adminstration of propofol for GI endoscopy. Endoscopy 2010; 42: 960–974
3. Dumonceau J-M et al. ESGE-ESGENA-European Curriculum for Sedation Training in Gastrointestinal Endoscopy. Endoscopy 2013; 45: 496–504
4. Jensen JT, Vilmann P, Horsted T et al. Nurse-administered propofol sedation for endoscopy: a risk analysis during an implementation phase. Endoscopy 2011; 43: 716–722
5. Schilling D, Leicht K, Beilenhoff U, et al. Impact of S3 Training Courses “Sedation and Emergency Management in Endoscopy for Endoscopy Nurses and Assisting Personnel” on the Process and Structure Quality in Gastroenterological Endoscopy in Practices and Clinics - Results of a Nationwide Survey. Z Gastroenterol 2013; 51(7): 619-627

L-26

The opportunities and challenges of working and living in another EU country

Christiane Neumann, United Kingdom

Free movement of EU citizens is a fundamental principle of the Treaty enshrined in Article 45 of the *Treaty on the Functioning of the European Union*. People working in some occupations, such as nurses, may also be able to have their professional qualifications recognised in other EU countries (mutual recognition of professional qualifications).

By 2020, almost 1.6 million health professionals will be required, mostly to replace existing workers who leave or retire from the workforce, and the current level of nurses trained falls short of this requirement. This opens the opportunity for healthcare workers to experience another culture, language and career pathway, especially if they move to a country with a large shortfall of health care workers. The chances of professional development can be extensive, including career and educational opportunities.

Although the opportunity is there to move to another EU country, working and living there may pose many problems in terms of professional and social adaptation.

There are many variations in health care systems, the level of professional and patient autonomy and accountability, nurse specialisations, and levels of team work within the health care system. Failure to adapt can cause frustration and even alienation at work. This also applies to life outside work. What is perceived as correct in one country can be offensive in another. Integration is therefore vital for a successful life in another country.

During a permanent stay in another country, EU foreign nationals enjoy the same rights, benefits and advantages as nationals, but this could be less than they receive in their own country. Consideration must therefore also be given to issues such as pension rights and contributions,

recognition of additional qualifications acquired that may not be recognised on return to the home country, etc.
Moving to another EU country can be a great adventure, career opportunity and personal challenge. Approaching such a move, particularly if it is intended to be permanent, requires many considerations. Integrating both professionally and socially is a must if the experience should be positive.
Help and advice for EU nationals and their family = http://europa.eu/youreurope/citizens/index_en.htm

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L-27

Intelligent light – relaxed atmosphere in Endoscopy

Søren Meisner, Wendy Waagenes, Denmark

Intelligent light, also known as, Ergonomic Light (EL) has become popular among users in the hospital sector as they look for improved lighting to enhance work efficiency on the departments. EL creates a more productive working environment resulting in less fatigue and greater well-being.
EL is a story of user-driven innovation that resulted in a unique lighting concept. The idea of developing purpose-specific lighting arose in the operating department at Odense University Hospital in Denmark. The concept formed the basis of Chromaviso, the company which has subsequently introduced EL at a number of leading Scandinavian and European hospitals.
EL has great flexibility and can be used widely in operating rooms, departments of diagnostic radiology, endoscopy rooms and other areas.
EL is based on the knowledge of the effect of colors in zoned workspaces in which monitors are widely used. EL divides the space into colored light zones, each of which is purpose-specific. This creates optimum working conditions, enhances detail and increases safety for both patients and employees.
In summary: EL optimizes on-screen image quality, counteracts reflection and increases details, reduces fatigue and ensures greater well-being, provides a better overview and increased precision, reduces tendency to headaches and improves the working environment.

L-28

Endoscopy training in Africa-a report

Olivier Le Moine, Belgium

Therapeutic digestive endoscopy did not exist in sub-Saharan Africa before 2005. However, the prevalence of digestive diseases that could potentially benefit from basic endoscopic treatment is very high in this region. Portal hypertension with variceal bleeding and severe dysphagia associated with benign or malignant upper gastrointestinal tract diseases are prominent in these countries.
The aim of the Project described in this report was to create a digestive endoscopy facility in Dakar (Senegal, West Africa), that would also provide local training in therapeutic endoscopy to doctors and nurses and facilitate regional autonomy with the opening of a University Certification in Gastroenterology.
It took about 10 years to achieve these targets - 5 years to prepare realistic aims that took into account local needs, available local resources, and funding, and 4 years for the Project itself (2005-2009). At the present time, Senegalese colleagues and nurses are autonomous for basic therapeutic procedures in the upper and lower gastrointestinal tract. Two years after the end of funding, the rate of therapeutic activity has increased from 0% in 2005 to 12 % of digestive endoscopic activity in 2011. Key points of success were preparation, confidence of medical personnel, university involvement, shared funding, local multidisciplinary training, and facilitation of autonomy. Belgian healthcare workers were present on-site in Dakar for a total of about 6 months over the 4-year Project period, with an annual budget of less than € 80000. The Project has enabled an efficient North-South collaboration with a minimal budget, which has changed the healthcare provision of digestive endoscopy in Senegal, and has also provided autonomy, and facilitated the development of South-South cooperation.

References:

- Creation of a therapeutic digestive endoscopy suite in Senegal: renovation, training and university certification. Results of a Belgian-Senegalese inter-university project. Le Moine O, Diouf ML, Mbengue M, Mbaye PS, Diop PM, Balme F, Brihay J, Le Moine-Pauwels A, Le Moine M, Moreira-Diop T. Endoscopy. 2012 Feb;44(2):177-85
- Gastroenterology training in a resource-limited setting: Zambia, Southern Africa.
- Asombang AW, Turner-Moss E, Seetharam A, Kelly P.World J Gastroenterol. 2013 Jul 7;19(25):3996-4000
- American Society for Gastrointestinal Endoscopy guidelines for appropriate use of colonoscopy: are they suitable for African patients? Mudawi HM, Mohammed Ali SE, Dabora AA, El Tahir MA, Suliman SH, Salim OE, Elsiddig HD, Ibrahim SZ. Trop Doct. 2012 Jul;42(3):165-7
- A fibreoptic endoscopic study of upper gastrointestinal bleeding at Bugando Medical Centre in northwestern Tanzania: a retrospective review of 240 cases. Jaka H, Koy M, Liwa A, Kabangila R, Mirambo M, Scheppach W, Mkongo E, McHembe MD, Chalya PL.BMC Res Notes. 2012 Jul 3;5:200
- Gastrointestinal endoscopy in a low budget context: delegating EGD to non-physician clinicians in Malawi can be feasible and safe. Wilhelm TJ, Mothes H, Chiwewe D, Mwatibu B, Kähler G.Endoscopy. 2012 Feb;44(2):174-6

L-29

Carbon dioxide insufflation - when it is needed and when not

Markus Reiser, Germany

Visualization of the gastrointestinal tract requires distension of the lumen which is achieved by insufflation of a gas. Because of its convenience and lack of costs ambient air is most commonly used for endoscopic procedures. While most of the „room air“ used for brief upper endoscopies (EGD) leaves the stomach by eructation substantial amounts of air do enter the small intestine and colon during ERCP and colonoscopies. Since „room air“ is slowly and only partially absorbed by the gastrointestinal tract it can cause bloating, discomfort and pain. Moreover, there is a risk of air embolism with consecutive acute cardiovascular failure in more invasive procedures such as ERCP with spincterotomy or endosonographic guided pancreatic necrosectomy.
Therefore, the feasibility and safety of insufflating carbon dioxide (CO2) for a variety of endoscopic applications has been evaluated in a series of clinical trials. The rationale for using CO_2 is that it is rapidly absorbed from the bowel into the blood stream, then eliminated from the body via

respiration. CO2 insufflation has consistently shown to cause less postprocedural pain and abdominal distension after upper and lower gastrointestinal endoscopy. The literature is remarkably consistent regarding the safety of CO2 insufflation. No significant adverse events have been reported, especially, no pathologic rise in pCO2 levels, CO_2 retention, or ventilatory compromise was observed. However, caution is advised in patients with severe pulmonary comorbidities and known CO2 retention since the majority of studies excluded these patients.
In summary, CO2 insufflation for upper and lower GI endoscopy has gained increasing acceptance among gastroenterologists and has been shown to be save.

L-30

Improving quality in colonoscopy

Miguel Muñoz-Navas, Spain

Colo-rectal cancer (CRC) is the second most prevalent cause of cancer-related mortality for men as well as women in developed countries, it is a disease which can be prevented and colonoscopy is the best technique to diagnose colon diseases. For these reasons the amount of colonoscopies has dramatically increased in many Western countries.
Colonoscopy is used in many hospitals of different levels and the quality of the performance varies hugely. Depending on this quality, the following neoplasias might not be diagnosed: Up to 6% of polyps >1cm. (Rex DK. Gastroenterology 1997; 112: 24), up to 4 % of proximal colon cancer (Bressler B. Gastroenterology 2004; 127: 452) and up to 3.4% of interval CRC (previous colonoscopy done 6-36 months before). (Bressler B. Gastroenterology 2007; 132:96).
Risk factors for not diagnosing CRC are: proximal CRC, exploration nor performed in a hospital, and colonoscopy performed by internist, general practitioner or general surgeons. (Bressler B. Gastroenterology 2007; 132: 96. Singh H. Gastroenteroloy 2010; 139: 1128)
A high quality colonoscopy (HQC) should be available for patients easily and without delay and ought to be performed with scientific and technical quality, without causing complications, satisfying patient expectations and with minimum possible cost and time. For performing a HQC we need to have:

- Adequate indication of the endoscopy.
- Medical record available in order to know about any sedation/endoscopy risk
- Patient informed consent.
- Appropriate sedation (Muñoz-Navas M. GIE 1994; 40, suppl 2: 29)
- Completeness of the colonoscopy (Muñoz-Navas M. GIE 1995; 41: 325)
- A withdrawal colon time > 6 minutes (Barclay RL. NEJM 2006; 355: 2523)
- Adequate adenoma detection rate in average risk people (Betes M, Muñoz-Navas M. Gastrointest Endosc 2004; 59: 634)
- Polipectomy of all identified polyps, except rectosigmoid diminutive hyperplastic polyps.
- Retrieval of all resected polyps (Muñoz-Navas M. GIE 1995; 41: 382)
- Register the incidence of complications.
- Adequate number of complications.
- The use of CO2 insufflation instead of air reduces abdominal pain and discomfort. (Fernandez-Calderon M, Muñoz-Navas M. Rev Esp Enf Dig 2012; 104: 237)
- A standardized procedure report, including a precise description of all visualized lesions, segment of colon reached, prep used and quality of cleansing, patient satisfaction with the exploration and prep., sedation used, withdrawal time and a post procedure follow up.
- Adequate bowel preparation.

L- 31

Good solutions for stone extraction

Not submitted

L-32

Unusual Findings during Endoscopy

Alexander Dechêne, Germany

Most of us perform a variety of endoscopic examinations and interventions nearly every day. Each patient and her or his problems are unique, nevertheless there is a considerable amount of routine and repetition in our workflow.
From time to time, even the most proficient team sees patients and comes into situations far out of the ordinary – in one word: unusual.
What makes endoscopic procedures unusual?
First of all, there are types of patients we do not normally treat: newborns and centenarians for example. Then, there are people with anatomic variations or pathological findings we do not understand at first (or at all, in some cases).
Another uncommon situation: sometimes we recognise a specific problem, but there is no traditional or commonly accepted way to solving it – imagination and inventive talent are required from us.
Last but not least, a seemingly ordinary examination may yield totally unexpected results.
This talk is not a scientific one – it just summarizes what can turn an endoscopic procedure in an unusual experience (and certainly did for our team).

L-33

Reprocessing problems with biopsy valves

Sigrun Kauertz, Germany

Introduction: Nowadays we have very good guidelines in place for reprocessing endoscopes and endoscopic devices, however there is still work to do. German guidelines make the assumption that germ transfer only occurs when the latest recommendations for reprocessing are disregarded. However, there is still one thing that, until now, has not been mentioned in the guidelines.
Aim: The audience should be aware of the problem with the reprocessing of biopsy valves and evaluate their own departments in this respect.
Content: In hygiene controls with screws as dummies for valves which werecontaminated with sheep's blood and E.Faecium ATCC 6057, the cleaning and disinfection in the washer disinfector was shown as insufficient in two of the

four tests performed. Tests were conducted in four different machines using four different detergents.
A study from the USA, the Namsa advisory study, also found contamination of biopsy valves after proper reprocessing.
One possible cause for this is the construction of the valves. They have hollow spaces that a cleaning brush cannot reach. Futhermore, through the use of medical devices during examinations we cause damage to the valves, creating areas germs can easily collect.
In our department, despite thorough cleaning of the biopsy valves, optical dirt was found after reprocessing in the washer disinfector. We were unable to eliminate this problem, regardless how hard we tried.
A search of the literature shows that special information about biopsy valves is difficult to find. There is a gap in our guidelines, which may be causing problems we wouldn`t have if single use biopsy valves were in use. In the German RKI- Guideline, one is expected to ensure that reprocessed medical devices do no harm to the next person being examined through their use. If we cannot sterilize biopsy valves, we are unable to ensure this.
Conclusions: Reprocessing of biopsy valves is difficult. Even when one performs it responsibly and properly, reprocessing is not always successful. Biopsy valves wear through use and this makes it easier for germs to collect in them. There is also the human factor, as staff are under pressure to work quickly and economically. The exclusive use of single use biopsy valves would therefore be the best solution for the prevention of germ transfer through biopsy valves.

L-34

Advances in Hemoclipping: Clinical perspectives and best practices (Boston Scientific Europe)

Ralf Kiesslich, Germany

Gastrointestinal bleeding is still a major cause of mortality and morbidity in gastroenterology patients.
Variceal and non-variceal bleeding has to be subdivided. Endoscopic treatment options differ significantly in both entities. Patients with variceal bleeding profit from rubber band ligation and injection therapy, which should be embedded into a clear clinical workflow (in combination with drug therapy).
Patients with non-variceal bleeding can be treated with different endoscopic methods. Here, Hemoclipping has become the methods of choice for acute arterial bleeding (Forrest Ia and Ib). Clipping should be combined with another endoscopic treatment option to ensure long term success.
Different Clipping systems are on the market and are reviewed during my talk.
The Resolution Clip of Boston scientific can be opened and closed before application ensuring ideal positioning.
However, endoscopic hemoclips are not only be used for hemostasis. They are also helpful for closure of perforations, prevention of bleeding and marking of lesions prior surgical intervention.
Close interaction between assistance and examiner are needed to handle and place the clip in an appropriate fashion.
Several clinical examples will highlight this interaction and highlight the clinical benefits of hemoclipping.

L-35

Developments of Nurse Education in Europe

Franz Wagner, Germany

Healthcare demands and demographic composition of populations are changing. In the majority of European countries we see or expect ageing societies. Therefore, the demand for health care is increasing and the required services are changing. In addition, the knowledge base of all health professions is growing which enables better and more individualised health care. But, the shortage of health care professionals is a global problem which increasingly endangers health care services. Many health professionals have become part of the growing group of migrants. All these trends have an impact on the education of health professionals - among them nurses. If there is need for a different kind of care and for more nurses while there are less young people starting a professional career then fundamental change is required.
In Europe the majority of countries (25 of 28 member states of the EU) have moved (or are moving) nursing education into higher education over the last 10 to 20 years. Only an academic education guarantees the appropriate level of competence. Unfortunately the EU Commission failed over resistance from the EU-Parliament and some member states (Germany among those) to establish this as a rule EU-wide.
Post-basic education very often requires Master degrees for specializations in nursing. However, if details of education programs are compared the differences between countries become apparent. This reflects the different roles of nurses in the health systems of their home country.
The major future challenge will be to maintain a sufficient number of highly competent health care professionals in Europe without exploiting developing countries by luring away their nurses and physicians.

L-36

Shall we protect our liver by a cup of coffee ?

Jürgen Fröhlich, Germany

Coffee is one of the most popular psychoactive beverages in the world. Ever since coffee is consumed it has been controversially discussed whether the black drink is favorable or bad for health. Recent epidemiological studies have answered this question in favor of either not harmful or even beneficial effects. This has been particularly evident for the incidence of type-2-diabetes and for chronic liver disease. In the latter case individuals used to drink coffee seem to develop far less progressive liver damage. This has clearly been shown for liver cirrhosis and even hepatocellular carcinoma, regardless of originating from alcohol abuse or viral infection. Furthermore, recent data support a positive correlation between coffee and successful antiviral therapy. Potential disease preventing properties may be due to its content of caffeine or other ingredients such as chlorogenic acids, diterpenes, or trigonelline. As a consequence and for the sake of our liver, shall we get used to enjoy our glass of wine or beer along with a cup of coffee?

5.2. Poster Presentations on 13 October 2013

P- 1

Quality assessment of bowel preparations

Caldeira, P.; Coelho, P.; Rodrigues, C.; Leitão, A.; Pires, E.; Deus, J.

Effective cleaning facilitates the visualization of the colonic mucosa, increasing the diagnostic accuracy of the exam.
Aim: Evaluate the effectiveness of the different agents in bowel preparations, relating the quality of the same with the degree of mobility.
Methods: Prospective analysis of all colonoscopies performed between June 2011 and May 2013, applying the Boston Bowel Preparation Scale (BBPS) by the nurses attending the exam, according LAI (2009) a inadequate preparation is considered with a BBPS score <5. The degree of mobility was measured with the Barthel mobility scale. SPSS® v.16.0 software was used for statistical analysis, with the application of the Chi² test, considering a $p<0.05$ as a significantly statistician.
Results: From a total of 3198 exams, it was excluded 348 incomplete exams for clinical decision or intolerance pain threshold, being included in the analysis 2850 colonoscopies, corresponding to 2850 patients. Of these, 52.2% were male, had an average age between 61 and 70 years, and 13.8% were hospitalized. We identified 187 patients (6.6%) with reduced mobility (Barthel Index <3). Preparation with Polyethylene Glycol (PEG) 4L was used in 2505 patients (87,9%), PEG 2L in 178 patients (6,2%) and Sodium Phosphate in 167 patients (5,9%). The preparation was adequate in 84.5% of cases (n=2408) and inadequate in 15.5% of cases (n=442). There was an association between the quality of the preparation and provenance of patients ($p<0.001$) and mobility conserved ($p<0.001$). The results of the preparations with PEG 2L and Sodium Phosphate were higher compared to PEG 4L ($p<0.05$). The efficacy between PEG 2L and Sodium Phosphate agents showed no significant difference (p=NS).
Discussion/Conclusions: We concluded that for patients with reduced mobility there is a greater probability of finding inadequate preparation, so it must be considered suits the types of colic preparation to the degree of mobility of the patient. PEG2L and Sodium Phosphate solutions showed better results when compared with the high volume of PEG solution, being a solution for patients with reduced mobility, according to the clinical status of the same.
Relevance to Nursing Practice: The preparation of clients undergoing colonoscopy is one of the current indicators of quality nursing care. Understanding the relationship between the various factors involved in the quality of preparation, will allow a better intervention, more directed, towards the optimization of results and costs.
References:

- 1.Whittemore R, Knafl K. - The integrative review: updated methodology. Journal of Advanced Nursing. 2005;52(5):546-53.
- 2. Rex D, Chasen R, Pochapin M. – Safety and efficacy of two reduced dosing regimens of sodium phosphate tablets for preparation prior to colonoscopy. Alimentary Pharmacology & Therapeutics. 2002;16(5):937-44.
- 3. Verghese V, Ayub K, Qureshi W, Taupo T, Graham DY. Low. – Salt bowel cleansing preparation (LoSo Prep) as preparation for colonoscopy: a pilot study. Alimentary Pharmacology & Therapeutics. 2002;16(7):1327-31.
- Seinelä L, Pehkonen E, Laasanen T, Ahvenainen J. – Bowel Preparation for Colonoscopy in Very Old Patients. Scandinavian Journal of Gastroenterology. 2003;38(2):216-20.
- Rasmussen M, Bohlbro K, Qvist N. - Oral sodium phosphate compared with water enemas combined with Bisacodyl as bowel preparation for elective colonoscopy. Scandinavian Journal of Gastroenterology. 2003;38(10):1090-4.
- Monique PC, Greg LP. Oral Sodium Phosphate Solution: A Review of its Use as a Colorectal Cleanser. Drugs. 2004;64(15):1697-714.
- Harewood G, Wright C, Baron T. - Assessment of Patients' Perceptions of Bowel Preparation Quality at Colonoscopy. Am J Gastroenterol. 2004;99(5):839-43.
- Hookey L, Depew W, Vanner S. - A Prospective Randomized Trial Comparing Low-Dose Oral Sodium Phosphate Plus Stimulant Laxatives with Large Volume Polyethylene Glycol Solution for Colon Cleansing. Am J Gastroenterol. 2004;99(11):2217-22.
- Larry E, Jack A.- Safety Issues Regarding Colonic Cleansing for Diagnostic and Surgical Procedures. Drug Safety. 2004;27(15):1235-42.
- Schmidt L, Williams P, King D, Perera D. - Picoprep-3™ Is a Superior Colonoscopy Preparation to Fleet™: A Randomized, Controlled Trial Comparing the Two Bowel Preparations. Diseases of the Colon& Rectum. 2004;47(2):238-42.
- Tjandra J, Tagkalidis P. - Carbohydrate-Electrolyte Solution Enhances Bowel Preparation With Oral Fleet Phospho-soda Diseases of the Colon & Rectum. 2004;47(7):1181-6.
- Holte K, Nielsen K, Madsen J, Kehlet H. - Physiologic Effects of Bowel Preparation. Diseases of the Colon & Rectum. 2004;47(8):1397-402.
- Kasha M, Rex D. - Efficacy and tolerability of a new formulation of sodium phosphate tablets (INKP-101), and a reduced sodium phosphate dose, in colon cleansing: a single-center open-label pilot trial. Alimentary Pharmacology & Therapeutics. 2005;21(4):465-8.
- Delegge M, Kaplan R. - Efficacy of bowel preparation with the use of a prepackaged, low fibre diet with a low sodium, magnesium citrate cathartic vs. a clear liquid diet with a standard sodium phosphate cathartic. Alimentary Pharmacology & Therapeutics. 2005;21(12):1491-5.
- Kim H, Park D, Kim J, Jee M, Baik S, Kwon S, et al. - Effectiveness of Walking Exercise as a Bowel Preparation for Colonoscopy: A Randomized Controlled Trial. Am J Gastroenterol. 2005;100(9):1964-9.
- Risser N. - Literature Review: Preventi Care. Bowel Preparation for Colonoscopy. 2005;30(10):66-7.
- Young C, Simpson R, King D, Lubowski D. - Oral sodium phosphate solution is a superior colonoscopy preparation to polyethylene glycol with bisacodyl. Diseases of the Colon & Rectum. 2000;43(11):1568-71.
- Mathus-Vliegen E, Kemble U. – A prospective randomized blinded comparison of sodium phosphate and polyethyleneglycol-electrolyte solution for safe bowel cleansing. Alimentary Pharmacology & Therapeutics. 2006;23(4):543-52.
- Sanaka M, Super D, Mullen K, Ferguson D, McCullough A. - Use of tegaserod along with polyethylene glycol electrolyte solution for colonoscopy bowel preparation: a prospective, randomized, double-blind, placebo-controlled study. Alimentary Pharmacology & Therapeutics. 2006;23(5):669-74.
- Thomson J, Phull P. - Audit of bowel preparation with Picolax® (sodium picosulfate plus magnesium citrate) for colonoscopy. International Journal of Clinical Practice. 2006;60(5):602-3.
- Tjandra J, Chan M, Tagkalidis P. - Oral Sodium Phosphate (Fleet®) is a Superior Colonoscopy Preparation to Picoprep. Diseases of the Colon & Rectum. 2006;49(5):616-20.
- Wexner S, Beck D, Baron T, Fanelli R, Hyman N, Shen B, et al. - A Consensus Document on Bowel Preparation Before Colonoscopy: Prepared by a Task Force From The American Society of Colon and Rectal Surgeons (ASCRS), The American Society for Gastrointestinal Endoscopy (ASGE), and The Society of American Gastrointestinal and Endoscopic Surgeons (SAGES). Diseases of the Colon & Rectum. 2006;49(6):792-809.

- Ker T. - Comparison of Reduced Volume Versus Four-Liter Electrolyte Lavage Solutions for Colon Cleansing. The American Surgeon. 2006;72(10):909-11.
- Sanaka M, Shah N, Mullen K, Ferguson D, Thomas C, McCullough A. – Afternoon Colonoscopies Have Higher Failure Rates than Morning Colonoscopies. Am J Gastroenterol. 2006;101(12):2726-30.
- Chiu H-M, Lin J-T, Wang H-P, Lee Y-C, Wu M-S. – The Impact of Colon Preparation Timing on Colonoscopic Detection of Colorectal Neoplasms A Prospective Endoscopist-Blinded Randomized Trial. Am J Gastroenterol. 2006;101(12):2719-25.
- Denberg T, Coombes J, Byers T, Marcus A, Feinberg L, Steiner J, et al. – Effect of a mailed brochure on appointment-keeping for screening colonoscopy: a randomized trial. Annals of internal medicine. 2006;145(12):895-900.
- Belsey J, Epstein O, Heresbach D. – Systematic review: oral bowel preparation for colonoscopy. Alimentary Pharmacology & Therapeutics. 2007;25(4):373-84.
- Siddiqui A, Yang K, Spechler S, Cryer B, Davila R, Cipher D, et al. – Duration of the interval between the completion of bowel preparation and the start of colonoscopy predicts bowel-preparation quality. Gastrointestinal Endoscopy. 2009;69(3, Part 2):700-6.
- Seo E, Kim T, Park M, Joo H, Heo N, Park J, et al. – Optimal preparation-to-colonoscopy interval in split-dose PEG bowel preparation determines satisfactory bowel preparation quality: an observational prospective study. Gastrointestinal Endoscopy. 2012;75(3):583-90.
- Flemming J, Vanner S, Hookey L. - Split-dose picosulfate, magnesium oxide, and citric acid Solution markedly enhances colon cleansing before colonoscopy: a randomized, controlled trial. Gastrointestinal Endoscopy. 2012;75(3):537-44.e1.
- Dominitz J. - Take two phosphasodas and scope them in the morning. Gastrointestinal Endoscopy. 2006;64(4):553-5.
- Chaabane N, Mansour W, Hellara O, Mansour I, Melki W, Loghmeri H, et al. – Préparation intestinale avant coloscopie. La Presse Médicale. 2012;41(1):37-42.

P-2

Efficacy of two low-volume colon cleansing regimens: a randomized controlled trial

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Background: Low volume cleaning regimens for colonoscopy preparation using PEG plus other laxative agents, showed, in previous studies, an efficacy equal or better than 4l PEG preparations. There are several alternatives for associating PEG two other compounds, but studies comparing associations are lacking.

Aim & Objectives: The study compared efficacy of a low volume picosulphate/magnesium citrate preparation associated with PEG and PEG-ascorbic acid associated with bisacodyl (15 mg) in a randomized clinical trial (RCT).

Method: A multicentre randomized, single-blinded study was designed. Adult outpatients undergoing colonoscopy received either PEG-ascorbic acid plus bisacody (Group 1) or picosulphate/magnesium citrate plus 2 l of PEG (Group 2). Bowel cleansing was assessed using the Boston Scale (BBPS) and rated as successful if >6. A right colon score 2 or 3 was considered as adequate. Patient acceptance was recorded.

Results: 518 adult patients were included. Group 1: n=226, Male=46,9%, Age mean=54,7y. Group 2: n=291, male=54,6%, Age mean=55,5%. Preparation was successful in 92,5 % Group 1 and 94,9 % in Group 2. The mean BBPS score for the entire and the right colon was comparable. Adequate right colon scores were found in 94.2% patients in Group 1 and 96,6% in Group 2. In Group 1 there were no differences in successful preparations between morning and afternoon procedures; in Group 2 afternoon examinations were more successful than morning procedures (A.M.=91,6%,P.M=98, 0 P<0,05). Tolerance was similar between groups. There were no significant adverse effects for both preparations

Summary and Discussion: Association of different laxatives with PEG solutions provided a good alternative for getting a higher range of efficacy.

Conclusion: Picosulphate/magnesium citrate plus PEG and PEG-ascorbic acid plus bisacodyl are both effective for bowel preparation, with very good cleaning scores.

References:

- Coriatt R., Pommaret E., Leblanc S., Chaussade S.; Quality indicators for Colonoscopy Procedures in Applications and Experiences of Quality Control. Universidade Paris Descartes, (2011); Paris, France;
- ESGE; Bowel preparation for colonoscopy: European society of Gastrointestinal Endoscopy(ESGE) Guideline, 2013:
- Katz PO, Rex DK, Epstein M, Grandhi NK, Vanner S, Hookey LC, Alderfer V, Joseph RE.; A dual-action, low-volume bowel cleanser administered the day before colonoscopy: results from the SEE CLEAR II study.(2013); 1. Am J Gastroenterol. 2013 Mar;108(3):401-9; Albert Einstein Healthcare Network, Philadelphia, Pennsylvania 19141, USA.
- Lai, E., Audrey H., Doros G., Fix O., Jacobson B.; The Boston Bowel preparation Scale: A valid and reliable instrument for colnoscopy- oriented research in Gastrointest Endosc, 2009 march, 620-625;
- Manes G, Amato A, Arena M, Pallotta S, Radaelli F, Masci E; Efficacy and acceptability of sodium picosulphate/magnesium citrate versus low-volume PEG-ascorbic acid for colon cleansing: a randomized controlled trial. 2013. Colorectal Dis. 2013 Gastrointestinal Endoscopy Unit, University Hospital L, Sacco, Milano, Italy.
- Recipi A., Cestari R., Annese V., Biscaglia G., Vitetta E., Minelli L., Trallori G., Orselli S., Andriulli A., Hassan C., Randomised clinical trial: low volume boweç preparation for colonoscopy- a comparision between two different PEG_ Based formulations. 2012, October. Aliment Pharmacol Ther, 36(8), 717-24. Milano, Italy.
- Rex DK, Katz PO, Bertiger G, Vanner S, Hookey LC, Alderfer V, Joseph RE. Split-dose administration of a dual-action, low-volume bowel cleanser for colonoscopy: the SEE CLEAR I study.(2013) Gastrointest Endosc.Indiana University School of Medicine, Indianapolis, Indiana, USA.
- Sociedade Portuguesa de Endoscopia Digestiva; Indicadores de qualidade na Colonoscopia;

P-3

In search of the best preparation: Polyethylene Glycol vs. Sodium Picosulphate for a successful colonoscopy

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Background: Colonoscopy is a common endoscopic procedure used both for diagnostic and therapeutic purposes. A good bowel preparation is essential for optimal visualization of the mucosa and is achieved by administering purgative solutions. These should be both effective in cleaning the colon and well tolerated by the patient. Among commercially available solutions polyethylene glycol (PEG) is frequently used for bowel cleansing, but large volumes have to be ingested. Sodium

picosulphate (SPS) is a more acceptable alternative for the patient, as it is administered in smaller volumes.
Aim: to compare two solutions used for bowel preparation regarding adverse events, their cleansing efficiency and patient tolerance.
Material and Methods: The study included 150 patients between 18 and 80 years old referred for a colonoscopy at the Research Center of Gastroenterology and Hepatology of Craiova between January 2012 and April 2013. Patients were randomly assigned to use either four liters of polyethylene glycol solution (n=80) or 20 mg of sodium picosulphate (n=70) for bowel cleansing. The gastroenterology nurse collected the data by using a questionnaire inquiring about tolerance of the preparation procedure, side effects to the cleansing solution (abdominal pain, headache, bloating, nausea, vomiting, perianal irritation), which was handed to each patient. The endoscopist was asked to evaluate the efficacy and quality of bowel cleansing from poor to excellent after each procedure.
Results: The patients mean age was 54 years old and 61.33% (92) were females. Between patients that used PEG solution 25 (31.25%) evaluated the preparation as neutral, 38 (47.5%) found it tolerable and 17 patients (21.25%) intolerable. In the group that used SPS 12 patients (22.85%) assessed the preparation as neutral, 49 (61.42%) as tolerable and only 9 (15.72%) found it intolerable. Most common adverse events included for patients prepared with PEG nausea (28), abdominal pain (12) and perianal irritation (8). Fewer patients experienced side effects when using SPS, represented by dizziness in 13 cases and headache for 9 subjects. Regarding the quality of preparation PEG solution performed better according to the examiner who evaluated 69 cases as good or excellent compared to only 41 cases for the SPS group.
Conclusions: A good bowel cleansing is fundamental for a successful colonoscopic examination and the assisting nurse can play an important part in assessing the quality of preparation by direct interaction with the patient. Although SPS is better tolerated by patients, the use of PEG solution is favored by its higher quality of preparation.
References:
1. Tan JJ, Tjandra JJ. Which is the optimal bowel preparation for colonoscopy - a meta-analysis. Colorectal Dis 2006;8:247–258.
2. van Vugt van Pinxteren MW, van Kouwen MC, van Oijen MG, et al. A prospective study of bowel preparation for colonoscopy with polyethylene glycol-electrolyte solution versus sodium phosphate in Lynch syndrome: a randomized trial. Fam Cancer 2012 Sep;11:337-41.

P-4

A pilot study evaluating a new low-volume cleansing procedure for capsule enteroscopy

Eduardo Serra Oliveira, Marta Oliveira, Miguel Mascarenhas-Saraiva, Rolando Pinho, ManopH – Laboratório de Endoscopia e Motilidade Digestiva, Porto, Portugal

Background: Capsule endoscopy (CE) is effective in the detection of small bowel lesions. Based on the results of a recent meta-analysis, the use of bowel preparation alongside fasting is recommended for CE (1), cause improve diagnostic yield. There are few studies regarding the use of low volume PEG-based preparations in capsule enteroscopy. PEG-ascorbate (Moviprep®) is an example of such a preparation. Nurses can play a key role in communicating the benefits of various bowel preparation options, including split dosing, to patients (2).
Aims: feasibility and efficacy of a new low-volume, PEG-ASC bowel preparation, for performing capsule enteroscopy.
Methods: Randomized study, realized prospectively (2011/2012). Intervention is the use of PEG-ASC preparation (Group B) and control is the traditional preparation with Clear Liquids (CL) plus fasting (Group A). CE was performed using Given Pillcam SB2. Primary end-point was the visibility (Park). Secondary end-points were differences in capsule transit time in different GI-tract segments. For determination of the cleansing score (CLS: 0-3 range), representative frames were serially selected at 5-min intervals and scored. The accepted cut-off was 2,25 (3).
Results: (quantitative numeric variables expressed in median and IQR)
Discussion: Cleansing score (Visibility score and Obscuration score) is better in Group B (Intervention Group), which shows the PEG-ASC regimen improves conditions for a CE examination. This improvement is evident in the first and second terciles of small bowel.
Conclusions: A cleansing procedure using PEG-ASC for capsule enteroscopy yielded an adequate cleansing level superior to clear liquids and overnight fasting group. PEG-ASC also improved small-bowel mucosal visualization and reduced the degree of obscuration. The preparation didn´t interfere in capsule transit times. Preparation is recommended.

	Group A	Group B	
N	56	57	
Visibility score	2,6 (2,2-2,77)	2,7 (2,5-2,9)	P=0,004 (MW test)
Obscuration score	2,1 (1,63-2,38)	2,3 (2,1-2,6)	P=0,003 (MW test)
Cleansing score (CLS)	2,35 (1,91-2,55)	2,45 (2,35-2,75)	P=0,003 (MW Test)
Cases with CLS≥2,25	N=36 (64%)	N=46 (81%)	P=0,08 (χ^2 Yates) ns
Incomplete enteroscopies	N=6 (10,7%)	N=3 (5,3)	P=0,2 (Fisher T) ns
CLS 1st SB tercile	2,6 (2,25-2,79) *n=50*	2,71 (2,44-2,87) *n=54*	P=0,03 (MW Test)
CLS 2nd SB tercile	2,38 (2,0-2,7) *n=50*	2,58 (2,3-2,8) *n=54*	P=0,04 (MW Test)
CLS 3rd SB tercile	2,27 (1,64-2,55) *n=50*	2,44 (2,0-2,7) *n=54*	P=0,068 (MW Test) ns
Gastric trans time (min)	16,8 (10,9-39,8)	27,03 (16,8-59,4)	P=0,06 (MW Test) ns
Oro-cecal T Time (min)	307 (248-359) *n=50*	283 (222-357) *n=54*	P=0,55 (MW Test) ns
SB T Time (min)	262 (208-310) *n=50*	237 (185-306) *n=54*	P=0,27 (MW Test) ns

References
1. Belsey J, Crosta C, Epstein O, Fischbach W, Layer P, Parente F, Halphen M. Meta-analysis: efficacy of small bowel preparation for small bowel video capsule endoscopy. Curr Med Res Opin. 2012 Dec; 28(12):1883-90.
2. Di Palma J, Rex D. Advances in bowel preparations: new formulation and clinical results. Gastroenterol Nurs. 2011 Sep-Oct;34 Suppl 2:S2-8.
3. Park SC, Keum B, Hyun JJ, Seo YS, Kim YS, Jeen YT, Chun HJ, Um SH, Kim CD, Ryu HS. A novel cleansing score system for capsule endoscopy. World J Gastroenterol. 2010; 16:875-80.

P-5

Effects of chewing gum on abdominal discomfort, nausea, vomiting and drug compliance for the patients taking polyethylene glycol solutions in the preparation of undergoing colonoscopy

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Introduction: Sham feeding with chewing gum has been shown to promote bowel motility.
Aims&methods: This study is to determine whether sham feeding with chewing gum improves abdominal discomfort, nausea, vomiting and drug compliance for the patients taking Polyethylene Glycol (PEG) solutions before colonoscopy. The study was conducted from August 15 to October 15, 2012. The participants were 131 patients who underwent colonoscopy at a hospital in Korea. The eligible patients were randomly allocated into two groups: a control group (n= 65) and a gum-chewing group (n=66). The patients in the control group had PEG solutions according to the general protocol. The patients in the experimental group had PEG solutions while chewing one stick of sugarless gum during the resting phase. The categorical variables were analyzed using the Chi-square or t-test.
Results: The experimental group chewing gum reported significantly lower abdominal discomfort (p= .005), nausea and vomiting (p= .002) than the control group. Also, the drug compliance for the experimental group to PEG solutions was better than the control group(p= .006).
Conclusion: Chewing gum was effective for abdominal discomfort, nausea, and vomiting for the patients in the preparation undergoing colonoscopy. Therefore, chewing gum is recommended as an effective, safe, inexpensive, and practical nursing intervention.
Keywords: chewing gum, nausea, drug compliance, colonoscopy

P-6

Fundamental elements in bowel - preparations - efficacy and compliance

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Introduction: Total Bowel Cleansing (TBC) is a crucial element in bowel investigation. Thus, the selection of a product or regimen is extremely important. Insufficient cleansing can result in missed pathology and misinterpretations, endoscope damage, repeat procedures, iathrogenesis and cancellations. Thus, a major concern to both patients and nurses is bowel preparation, particularly those going for a follow-up colonoscopy. The most common complaint in our population is the large volume of an unpalatable bowel preparation.
Aim: To investigate the effectiveness of 2 litres Polyethylene Glycol (PEG) bowel preparation versus 165 mls of Sodium Biphosphate + 1 litre of PEG.
Method: Arm A consisted of:
PEG + 1 litre (ltr) of Water in 1 hour, 20 hours before procedure followed by 1 ltr of Water in 1 Hour, 19 hours before the procedure. PEG + 1 ltr of water in 1 hour, 6 hours before procedure followed by 1 ltr. of water in 1 Hour, 5 hours before the procedure.
Arm B consisted of 45mls Sodium Biphosphate in 120mls water followed by 2 ltrs of water in 2 hours 20 hours before procedure PEG + 1 ltr of water in 1 hour , 6 hours before procedure followed by 1 ltr of water in 1 hour 5 hours before procedure.
200 consecutive patients were randomly assigned to arm A (100 patients) or arm B (100 patients). Assessment forms were numbered for collection purpose only. Regimens were labelled A and B, for which only the nurses dispensing the product were informed of the assimilation. These nurses also assessed the patients in terms of tolerance and side-effects to the product given.
The endoscopy specialist nurse and the respective endoscopist performing the colonoscopy were blinded to the assimilation and they assessed the outcome in terms of efficacy of the preparation. Cleansing level was graded as:
Poor Inadequate ; Fair Inadequate ; Good Adequate ; Excellent Adequate - No more than small bits of adherent faeces (Leighton, Rex, 2009).
Results: In Arm A – 100 patients performed the colonoscopy (53% male; age range of 18-83 years).
In Arm B – 100 patients performed the colonoscopy (50% male; 13-90 years).
The most common complaint that were recorded were headache – 21% (A) versus 16 % (B) and Nausea 23.%(A) versus 24% (B).
Tolerability was classified as well tolerated, adequately tolerated and poorly tolerated. The results are demonstrated in the table below (table 1). There was no significant differences between the 2 groups.
Efficacy – Patients in ARM B had a statistically significant better bowel preparation (table 2) than patients in arm A (chi-square, p = 0.018)

Table 1

	Well tolerated	Adequately Tolerated	Poorly Tolerated
Arm A	**72**	**22**	**6**
Arm B	**74**	**19**	**7**

Table 2

	Excellent adeqaute	Good Adequate	Fair Inadequate	Poor Inadequate
Arm A	**60**	**29**	**9**	**2**
Arm B	**77**	**21**	**1**	**1**

Conclusion: This study demonstrates that Sodium Biphosphate (165mls) + 1 litre of PEG was superior to 2 litres of PEG. Possibly the lower volume of bowel preparation led to better adherence. Meanwhile volume of fluids ingested, still 4 litres may be a crucial factor in TBC.
References

- Leighton, J.A., Rex, D.K. (2009). A grading scale to evaluate colon cleansing for the PillCam COLON capsule: a reliability study. Endoscopy 2011; 43: 123–127
- Rex DK, Bond JH, Winawer S, et al. Quality in the technical performance of colonoscopy and the continuous quality improvement process for colonoscopy: recommendations of the U.S. Multi-Society Task Force on Colorectal Cancer. Am. J. Gastroenterol. 2002; 97: 1296–308.

P-7

Propofol administration during colonoscopy: Give it to the nurse!

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Introduction: Propofol[1] (P) is widely used as sedation therapy during colonoscopy and in many countries has to be administered by anaesthesiologists only.
Aims: to demonstrate that Propofol administration by a trained nurse using a Target Controlled Infusion (PTCI) pump is as safe and well tolerated during colonoscopy.
Methods: in two endoscopic units was conducted a cohort-study on 384 consecutive patients going for colonoscopy and sedated randomly with PTCI or M+M. Endoscopies were performed by 6 skilled gastroenterologists (>400 colonoscopies/year), two nurses were always present in endoscopic room and one of them was dedicated to sedation and airways evaluation. Anaesthesiologists were on call. Standard monitoring (ECG, pulsossimetry, NIBP) and capnography were used. Propofol infusion was controlled by a TCI pump (Syramed® µSp6000, Arcomed AG) set on Schnider protocol. Initial Effect Site Target Concentration (ESTC) was 2,5 µg/ml. The endoscopies began after 1 minute from the beginning of infusion. If the patient felt pain, increments of 0,5 µg/ml were allowed up to a maximum of 4 µg/ml. Propofol administration and monitoring was performed by a trained nurse. M+M was administered by gastroenterologists at standard dosages. All patients were discharged when Aldrete criteria were met and after the administration of the Numeric Visual Scale (NVS) and Nurse Assessed Patient Comfort Score (NAPCOMS)[2] test. 24 hours after endoscopy all patients undergone to a telephone interview and Iowa Satisfaction with Anaesthesia Scale (ISAS) was collected.
RESULTS:200 pts (52.08%) received PTCI at an average drug dosage (ADD) of 156.8±69.6 mg; 184 pt received M+M (47.91%) at an ADD, respectively, of 4.18±1.3 mg and 47.5±5.5 mg. Both groups were clinically homogeneous. Adverse events were: hypoxemia (So2<90%): PTCI 0 pt, M+M 7 pt (p<0.05); apnea: PTCI 0 pts, M+M 8 (p<0.001); hypotension (SBP<90mmHg): PTCI 20 pts, M+M 21 (p=ns); bradycardia (<40 bpm) PTCI 2 pts, M+M 5 pts (p=ns). Apnea was treated successfully by the nurse with neck extension. Patients outcome and satisfaction: mean ALDRETE score: PTCI 9.98±0.12 vs M+M 9.77±0.4 (p<0.001). Mean NVS (pain): PTCI 0.61±1.62 vs M+M 1.33±2,22 (p<0.001). NAPCOMS Intensity: PTCI 0,24±0,63 vs M+M 0,58±0,97 (p<0.0001), NAPCOMS Frequency: PTCI 0,20±0,54 vs M+M 0,49±0,81 (p<0.0001), NAPCOMS Duration: PTCI 0,18±0,44 vs M+M 0,42±0,70 (p<0.0001). ISAS items for pain (question n. 5 and 9) were both statistically significative (p<0.0001) for PTCI vs M+M treated patients. Mean coecal intubation time was 6.38±3.59 min for PTCI and 7.92±5.29 min for M+M (p<0.05). Mean post sedation recovery time: PTCI 16,5±12,3 min vs M+M 26.5±9,4 min (P=0,0001).
Summary and discussion: Propofol sedation using TCI pump proved to be safe, more effective in pain control compared to Midazolam plus Meperidine and required less patient recovery time.
Conclusion: Propofol administration with TCI pump by trained nurses could be the future sedation method during colonoscopy.
Learning outcomes+relevance to nursing practice: The role of nurses in gastrointestinal endoscopy requires a wide spectrum of skills, including sedation assistance on patients.
References:
[1]Leffler, Therese M., Gastroenterology Nursing 2004;27(4):176-180.
[2]Rostom A., et all Gastrointestinal Endoscopy 2013;77(2):255-261.

P-8

Thermoregulation and prevention of hypothermia – an issue in routine Endoscopy?

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Introduction: In surgery, thermoregulation is an important issue, as hypothermia can produce alterations in wound healing, coagulation, cardiac, renal and hepatic functions; it also influences the Pharmacokinetic. Up to 60 % of patients undergoing surgical interventions can experience hypothermia (1). Morris showed that room temperature is a key issue: In his study all patients undergoing surgery experienced hypothermia at room temperatures below 21°C, only 30% at temperatures between 21-24°C. No hypothermia was observed at room temperatures >24°C (2). Nowadays, standardised hypothermia prevention measures supported by technical equipment are state-of-the-art in anaesthesia care. Due to longer lasting and more invasive interventions, thermal management has gained an increasing importance in endoscopy.
The aim of this study was to investigate the changes in patients' body temperature and the prevalence of hypothermia in routine endoscopy
Definition: Mild hypothermia (32-36°C), moderate hypothermia (29-32°C), deep hypothermia (20-29°C) (1).
Method: The body temperature of patients undergoing routine OGD, Colonoscopy, ERCP, EUS and Bronchoscopy was measured before and after endoscopy by taking the ear temperature (auricular). Patients' data, examination, room temperature and protection measures used in endoscopy (sheet or blanket) were documented.
Results: In April 2013, data of 268 patients (106 m / 162 f) could be evaluated: mean age: 65.5 (19-90); ASA I: n= 61, ASA II: n= 168; ASA III: n= 42; OGD: n= 85; Colonoscopy: n= 131, OGD + Colonoscopy: n= 25; EUS: n= 3, ERCP: n= 16, Bronchoscopy: n= 7, PEG: n= 1. Interventions: n= 64

- ASA classification, procedures and interventions had no influence on the change of temperature, but younger patients (age 19-39) showed greater changes in body temperature than elder patients.
- 197 patients (73.5%) showed a reduction in body temperature (11 patients (4.1%) significant reduction of -1 to 2.6°C, 186 patients (69.4%) a moderate reduction of -0.1-0.9 °C). 16 patients had no temperature changes and 55 patients showed a temperature rise of up to +1.3 °C (Table. 1).
- 148 patients examined on trollies covered with sheets showed higher temperature changes than patients covered with blankets (Table 2).
- The mean room temperature (RT) was 23.7°C (21.9-25.2°C). Patients (n=171) examined at RT < 24 °C showed greater temperature changes (-2.6. to +2.3 °C) than patients examined at RT> 24 °C (-1.1. to +1.3. °C).

- 22 of the overall 268 patients (8.2%) had mild hypothermia after endoscopy (34.0-35.9 °C), but none of them showed physical reactions like shivering. 8 of these patients (36,4%) were covered with blankets, 14 (63.6%) were covered with sheets. 17 of these patients (77%) were examined at RT <24 °C, 5 patients (22%) had the endoscopy at RT >24 °C.

Tab 1

Diff in Temp.	Patients (n)	Patients (%)
-2.6 - -1.0	11	4.1
-0.9 - -0.1	186	69.4
0	16	5.9
+0.1 - +0.9	53	19.8
+1.0 - +1.3	2	0.7

Tab 2

Room Temp	Patient (n)	Median	Min.	Max
< 24 °C	171	-0.2	-2.6	+2.3
>24 °C	97	-0.2	-1.1	+1,3
Coverin g	**Patient (n)**	**Median**	**Min.**	**Max**
Sheet	120	-0.3	-2.6	+1,3
Blanket	148	-0.2	-1.0	+2,3

Summary & Conclusion

The study showed that even in routine endoscopy with mainly diagnostic procedures, 73.5% of patients showed a reduction in body temperature. Due to the use of sheets and blankets, the reduction rate was predominantly moderate. The rate of mild hypothermia was low at 8.2%. Simple protection measurers seem to be effective, but warm blankets should be preferred. The room temperature seems to have an effect on the development of hypothermia. The study did not compare randomised groups. Different parameters influenced the results. But it showed that change in body temperature and hypothermia are an issue in Endoscopy, even for routine and diagnostic procedures.

References:

1. Depenbusch G. Heiße Tipps gegen coole Fälle. intensiv 2002; 10; 48 – 59
2. Morris RH (1971) Operating room temperature and the anesthetized paralised patient. Arch Surg 102; 95-97

Learning outcomes:

Attendees should

- Be aware of risk of hypothermia in Endoscopy
- Be aware of different factors which might influence the patient´s thermoregulation during endoscopy

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P-9

Preoperative endoscopic marking: tattooing with the blood of the patient for laparoscopic surgery

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Introduction: By way of development of minimal invasive techniques, for removal of small size, early stage colon tumors – because of its several advantages – laparoscopic surgery is recommended. Nevertheless localisation of the tumor is often complicated at laparoscopy because of miss of touch. Intraoperative colonoscopy is threatening sterility, inhibiting the operation by bowel insufflation and at last but not least it could upset the order of endoscopic consulting hours. There are several methods for preoperative endoscopic marking. Metal clips are expensive; often float away and for their detection intraoperative fluoroscopy needed. Submucosal injection of different types of painting materials (methylene blue, indigocarmin, indocyanine green or the carbon containing Spot®) can - rarely - cause complications: local inflammation, abscess, postoperative adhesions, allergic reactions.

Patients and method: At the endoscopic unit of Semmelweis University, 1st Department of Surgery for 2 patients prepared for laparoscopic colorectal surgery marking of lesions were performed with 8-10 ml own blood taken at the morning of the operation. Blood was - direct to its taking - injected by sclerotherapy needle submucosally, proximally and distally to the lesion, and in 4 directions round in the lumen of the bowel, using 1-1.5 ml blood per injection. This method is publicised first by a Korean group in 2012.

Results: No complications revealed during the interventions. The own blood injected into the colon wall was clearly visible both during endoscopic marking and laparoscopy as well. **Conclusion:** Endoscopic marking of GI lesions with own blood of the patient is a new, simple and low-priced method, which can take out intraoperative colonoscopy.

Learning Outcomes:

Endoscopic blood tattooing with own blood of the patient is new, simple and useful method, which could be an alternative to other intraoperative localization methods for laparoscopic surgery. This knowledge of new intervention means new challenges in their everyday practice

References:

1.,Jeong O, Cho SB, Joo YE, Ryu SY, Park YK.: Novel technique for intraoperative tumor localization during totally laparoscopic distal gastrectomy: endoscopic autologous blood tattooing. Surg Endosc. 2012 Jun;26(6):1778-83

2.,Trakarnsanga A, Akaraviputh T.Endoscopic tattooing of colorectal lesions: Is it a risk-free procedure?World J Gastrointest Endosc. 2011 Dec 16;3(12):256-60

Declaration: This research hasn't been presented previously at an ESGENA Conference.

P-10

Particularities of periprocedural care and reprocessing of high-end confocal laser endomicroscopic imaging systems

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Background: Endoscopy has seen significant technology developments led by the need for improved outcomes. Confocal laser endomicroscopy (CLE) is one such example, enabling the immediate delivery of procedure results, including in vivo microscopic diagnosis of lesions during endoscopic procedures. It is however a complex procedure that needs special training for both the endoscopist and its assisting nurse. Thus the **aim** of this study was to provide information regarding the particularities of CLE procedures for endoscopy nurses, including specific processing steps and periprocedural patient interaction.

Material and methods: Two systems are commercially available: 1) stand-alone systems (eCLE), representing

endoscopes with a miniature confocal microscope built within the distal tip and 2) probe-based systems (pCLE) which can be passed through the working channels of conventional endoscopes as catheters and, most recently, even through a 19G FNA needle under endosonographic guidance (nCLE). These systems are available in our centre and have been used for CLE imaging in various pathologies of the upper and lower GI tract, as well as the pancreas. For the examination a contrast agent is administered intravenously (10% fluorescein, 5 ml). Both CLE systems have connections to processors and several protective caps that cover the electronic/optical connections.

Results: A total of 34 patients were examined in the past three years (January 2010-December 2012) with the eCLE system: 8 with upper GI pathology and 26 with colorectal lesions. nCLE examination of focal pancreatic masses was performed in 7 patients (July 2012-March 2013) with the miniprobe preloaded in the FNA needle by the assisting nurse and carefully locked in position for imaging. An important part of the patient interaction included explanation by the nursing staff of the procedure and possible adverse reactions related to the contrast agent (nausea, vomiting, hives, acute hypotension, anaphylaxis, etc.). All procedures were well tolerated by the patients and there were no severe adverse reactions. Post-procedure specific instructions included information about the yellow coloring of skin, eyes and urine for several hours. Special reprocessing steps are needed for both systems. The tip of the eCLE scope, which houses the microscope, is very delicate and requires care in handling and disinfection. Sterilization of pCLE and nCLE probes needs in addition low-temperature systems.

Conclusion: CLE is a useful tool that can provide immediate diagnosis for the patients, but requires special training and experience for both the endoscopist and nursing staff. The role of the endoscopy nurse in the procedure implies significant additional care in handling of the extremely sensitive and highly expensive CLE equipment as well as close interaction with patients for the best results.

References:

1. Smith C, Ogilvie J, McClelland L. Confocal laser endomicroscopy: in vivo endoscopic tissue analysis. Gastroenterol Nurs. 2008 Sep-Oct;31(5):366-9; quiz 369-70.
2. Goetz M, Kiesslich R. Advances of endomicroscopy for gastrointestinal physiology and diseases. Am J Physiol Gastrointest Liver Physiol 2010;298: G797–G806.
3. Bajbouj M, von Delius S, Becker V, Jung A, Meining A. Confocal laser scanning endomicroscopy for in vivo histopathology of the gastrointestinal tract and beyond – An update. Arab Journal of Gastroenterology 2010; 11: 181–186.

P-11

New diagnostic tools in digestive endoscopy and a new patient care approach: Probe Confocal Laser Endomicroscopy (PCLE)

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Introduction: Digestive endoscopy is characterized, more than any other specialties, for the use of high-tech equipment. Research, development and the introduction of advanced endoscopic techniques has greatly improved diagnosis and therapeutical interventions. As a consequence, a collaborative approach of endoscopy nursing and continous implementation of changes are needed for a high quality patient care. PCLE is a novel imaging technique in digestive endoscopy providing *in vivo* visualization of epithelia and blood vessels of the mucosa of the digestive tract at subcellular level. PCLE shows promising applications in neoplasia detection with targeting of biopsies and evaluation of neoangiogenesis in colo-rectal and gastric cancer before and after standard therapy in order to predict usefulness of antiangiogenetic therapy. With the introduction of confocal laser endomicroscopy implementation of changes in the patient care setting are advocated to maintain high standards of safety of patients in Endoscopy Units. Areas of our interest are: structure organization, patient care and risk management.

Materials and methods: Revision of literature and of technical equipment, identification of new protocols for the new patient care needs (revision of coordination of a multifunctional team, adequate planning of endoscopic activities, introduction of a check-list)

Results: The introduction of confocal laser endomicroscopy has led to modifications in the following areas:

- *Structure:* longer procedure times for equipment, contrast dye and drug preparation, patient intraprocedural monitoring, reprocessing procedures of endoscopes and accessories.
- *Patient care:* patient identification, monitoring of heart beat, blood pressure and oxygen before, during and after the procedure, prevention and management of possible side effects of contrast dye and procedure related complications.

Discussion: PCLE is an endoscopic imaging technique which allows visualization of mucosa at a resolution of 1 micron and visualization of cellular, subcellular structures and blood vessels providing not only histological diagnosis *in vivo* but also evaluation of neoangiogenesis and response to antiangiogenetic treatment. 32 patients with rectal cancer were examined in our Gastroenterology Unit. Neoangiogenesis was evaluated using the “Cannizzaro-Spessotto scale” useful in evaluating response to anti-angiogenic therapy. Endoscopy nurse personnel must be aware that longer procedure times (about 15 minutes) necessitate adequate planning. The use of a contrast dye administered intravenously (fluorescein) leads to the planning of checks and intra-procedural observations for the correct management of possible side effects, such as anaphylactic shock. We report no local nor systemic adverse events during the procedures. In about 44,8% of patients we observed mild sub-scleral jaundice. The endoscopy nurse has also a fundamental role in giving pre-procedural information to the patient on the new medical equipment.

Conclusions: The introduction of the confocal laser endomicroscopy has a significative impact on the role of the endoscopy nurse both in patient care and structure organization.

In Endoscopy Units the nursing has a fundamental role in patient safety, equipment preparation and planning daily activities for a high quality patient care and patient satisfaction. Structure organization must be revised according to procedure timing and the involvement of different departments (endoscopy unit and anatomopathology unit).

Key words: probe confocal laser endomicroscopy, nursing, care.

P-12

Intraductal Aspiration (IDA): A promising new tissue sampling technique for diagnosis of suspected malignant pancreatobiliary strictures

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Background and Aims: Cytologic and tissue acquisition in suspected malignant pancreatobiliary strictures are frequently non-conclusive**.** Diagnostic tissue acquisition at endoscopic retrograde cholangiopancreatography (ERCP) may obviate the need for further invasive testing, thus allowing for optimal intervention without delay.
No other single method has been found to be superior, brushing remains the most commonly used technique for biliary sampling at ERCP, but lacks sensitivity for cancer detection (18-60%). The challenge in improving diagnosis of indeterminate strictures is devising new and more effective ways to target lesions and retrieve higher quality cytology specimens. To evaluate the feasibility of IDA as a new endoscopic technique for cytodiagnosis of suspected malignant pancreatic and biliary strictures. To compare this new technique with standard brushing, in terms of cellular **a**dequacy, diagnostic **a**ccuracy, and safety.
Material and Methods: 35 consecutive pts with suspected pancreatic-biliary stricture underwent ERCP, with tissue sampling obtained through standard brushing and IDA. All patient signed an informed consent. For each patient performed a TIME OUT. Under radiographic guidance, and using contrast fluid, bile duct or pancreatic duct strictures were identified. A 0.035-inch guidewire was then advanced through the stricture. Over the guidewire, we did standard brushing of the stricture using a standard brushing catheter. The brush was advanced from the catheter to a point proximal to the stricture, withdrawn slightly, and moved back and forth across the stricture at least 10 times. The brush was then pulled into the tip of the catheter, still located immediately below the stricture, and the unit brush/catheter was finally removed, leaving the guidewire in place. After brushing, we performed IDA. To perform IDA, we removed the brush from its brushing catheter in order to use the tip of the catheter as a scraping device. The tip was scraped back and forth across the stricture at least 10 times. This modified catheter and a suction line were connected to a specimen trap in order to obtain intraductal aspiration of fluids and samplings.
Results: Adequate cellular yield in 42 of the 45 (93.3%) IDA samples versus 17 of the 45 (37.8%) brushing samples ($p<0.001$). IDA provided a significantly higher sensitivity than brushing (90% versus 73% for **a**dequate samples, and 90% versus 38% for all samples), providing a significantly superior cellular adequacy (93.3% versus 37.8%).
Conclusions: We found this novel tissue sampling technique (IDA) TO BE FEASIBLE AND SAFE. This novel method could replace brushing for tissue acquisition at ERCP, and the potential advantages of this new technique should encourage further studies and product development
References:

1. NIH state-of-the-science statement on endoscopic retrograde cholangiopancreatography (ERCP) for diagnosis and therapy. NIH Consens State Sci Statements 2002;19:1-26.
2. De Bellis M, Sherman S, Fogel EL, et al. Tissue sampling at ERCP in suspected
3. malignant biliary strictures (part 1). Gastrointest Endosc 2002; 56:552-61.
4. Eisen GM, Dominitz JA, Faigel DO, et al. An annotated algorithmic approach
5. to malignant biliary obstruction. Gastrointest Endosc 2001;53: 849-52.
6. Nguyen K, Sing JT Jr. Review of endoscopic techniques in the diagnosis
6. and management of cholangiocarcinoma. World J Gastroenterol 2008; 14:2995-9.

P-13

Proposal to prevent the risk of infection in patients with a gastrostomy

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Introduction: The number of patients with a gastrostomy tube increases; their management is becoming more common at home with a well-known risk of infection. Between 2008 and 2011, we recorded a 20% increase in complications. Because this management is shared between the hospital and home, it seems useful to develop a single protocol to prevent the risk of infection. To develop such a guide, the assessment of hygiene practises concerning gastrostomy was required.
Objectives: The objective of this study was to perform an audit of nursing practices in patients with a gastrostomy. The points raised by the audit were the application of standard precautions for hygiene including hand hygiene, the maintenance and the monitoring of the gastrostomy, traceability and information of the patient and the family. The descriptive data analysis was to identify the issues and questions to be addressing in the preparation of the guide.
Method: A questionnaire drafted by the hygiene team from the establishment was delivered to 242 nurses from home and hospital. Five chapters were distinguished: traceability, protocolisation, standard procedures in hygiene, formation and information; each item included multiple-choice questions or questions with possible answers.
Results: About 50 percent of the questionnaires distributed were exploitable. Only 13% of hospital nurses were trained in the care of gastrostomy. The hand hygiene compliance and the medical care related to the stoma were better executed at home than in hospital. Practises related to the traceability of incidents or complications were correctly traced at hospital, but the logbook was insufficiency completed. Human relations were less frequent between the endoscopy unit and the hospital staff. 73% of patients at home were aware of the risk of infection and only 37% from hospital.
Discussion: The results demonstrate a better training in home nurses who have been specifically coached than in the nurses from the hospitable sector. The audit highlighted failures during the management of patients with gastrostomy responsible for potential infectious complications. A specific training is recommended to improve this management, essentially at hospital. The program includes hygiene procedures, traceability, and information of the patient and his family.
Conclusion: This first audit of the management of gastrostomy has revealed that optimisation was possible concerning protocolisation, education, training, network between home and hospital). A second audit will be performed in one year to estimate the improvement.
Learning outcomes+relevance to nursing practice :
-Nursing consultation is essential (patient education).
-Use of the logbook gastrostomy.

References :
- J.Blomberg, J.Largergren, L.Martin, F.Mattsson, P.Lagergren, Complications after percutaneous endoscopic gastrostomy in a prospective study, Scandinavian journal of gastroenterology, 2012 june.
- Le Sindaner A., Gastrostomie percutanée endoscopique. Acta endoscopica, 2002, 32(5) : 739-748
- Bigard MA, Champigneulle B, Gastroentérologie Clinique et biologique, une place pour la gastrostomie endoscopique, 1998, 22(12) : 1081.
- -De Baere T, Chapot R, Kuoch V et al, Percutaneous gastrostomy with fluoroscopic guidance, Radiology, 1999, 210 : 651-654.

P-14

Home care instructions and complications after placement of a Percutaneous Gastrostomy tube

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Introduction: Percutaneous endoscopic gastrostomy (PEG) tube is known as a method of choice to provide effective, safe and prolonged enteral nutrition to the patient. It is chosen when there is inability to swallow as a result of central nervous system impairment, or less frequent such as severe facial trauma, or the necessity of nutritional augmentation in patients with inflammatory bowel disease. In order to ensure low incidence of complications, it requires simple and accurate knowledge and application of care.
In "Hospital Universitario del Henares" we give spoken and written recommendations about care after PEG. This allows minimizing and early detection of complications.
Aims: The aim of this study is to determine the follow-up of nursing care recommendations and to describe the treatment when complications appear.
Research Methods: Cross-sectional study. A program evaluation was developed in 66 outpatients referred for PEG between April 2008 and April 2012. Exclusion criteria were inpatients or decease. Data about kind of tube, ostomy, and cares were collected by non-randomised phone call in a survey to patient or relatives. All data was analyzed with SPSS software.
Results: Sixty six (66) patients underwent PEG at our hospital. Forty three (43) where excluded for being inpatients or death. Twenty three (23) patients were analyzed, 13 were male gender. The main carer at home was a relative. Eleven (11) of them had standard balloon tube. Although complications occurred in 13 patients, they usually were minor in 77% of patients and 10 of them went to the hospital to receive treatment. Most recommended cares are accurately performed for 100% except for push-and-pull to avoid adhesions, wound cleansing and oral care. 100% consider that PEG is useful for nutrition. 98% understood the information sheet.
Summary and Discussion: Most principal carers understand and follow-up the nursing care recommendations, although minor complications appear. Treatment when complications appear is developed by health and principal carers and is adequate to the situation. The information sheet is easy to understand and useful. Most carers are able to identify complications, although they need to increase the knowledge and alternative treatment.
Conclusion: It is important to give appropriate information to the patient and principal carer in order to minimize complications while using PEG. Oral information may be given with an information sheet.
Nursing outcomes + relevance to nursing practice:
Effective communication with the patient and informal carers increase satisfaction and minimization of complications in PEG.
References
- -Friginal-Ruiz, Ana Belén; González-Castillo, Sonia; Lucendo, Alfredo J. Gastrostomía endoscópica percutánea: una actualización sobre indicaciones, técnica y cuidados de enfermería. Enferm Clin. 2011;21:173-8. - vol.21 núm 03
- -Jenny Moix Queraltó. Eficacia de los folletos informativos para suministrar información acerca de la operación y la convalecencia. Revista de calidad asistencial, ISSN 1134-282X, Vol. 10, Nº 5, 1995 , págs. 280-286
- -Löser CHr, Aschl G, Hébuterne X, Mathus-Vlieten EMH, Muscaritoli M, Niv Y et al. ESPEN guidelines on artificial enteral nutrition Percutaneous endoscopic gastrostomy (PEG). Clinica Nutrition (2005) 24,848-861.

P-15

Quality of life in patients fed via peg-tubes and the role of the nurse

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Background: The demand for home enteral nutrition(HEN) is growing rapidly due to an increasind and aging population and the growing number of people with chronic conditions. HEN Patients benefit from care at home more if they have a good quality of life.However the care of HEN patients is not well coordinated after a quick discharge from the hospital .Therefore patient education and monitoring are important to ensure the effectiveness of HEN and improve the quality of life of the patients. Feeding via percutaneous endoscopic gastrostomy (PEG) tube is one of common HEN therapy and this type of feeding can show physical and psychological impairment in patient's life.
Objectives: Our aims are to observe the quality of life of our outpatient patients who have HEN with PEG(all patients had been placed with PEG tube in our endoscopy unit) and to associate social, demographic and clinical factors with quality of life scores.
Methods: It is a crosssectional study with 23 patients fed with PEG. Quality of life these patients are assessed by WHOQOL-BREF(TR) (score range is between 4-20)
Results:Patients were 26% female. Mean age = 63.78± 19.69 Quality of life domain scores: physical = 8.81 ± 3.31;psychological = 8.26 ± 3.61; social = 9.73±2.67; and environmental(TR) = 9.78 ± 3.28.
Discussion: PEG patients have impaired and low quality of life scores in all domains of WHOQOL-bref (TR).HEN with PEG compromises well being. HEN service from initiation to monitoring and termination should be multidisciplinary(primary doctor, gastroenterology, dietitiaon, nutrition support nurse etc). In the assesment, planning, implemantation and monitoring of PEG feeding , both endoscopy and nutrition support nurses play an important role. Briefly,consultation with nutrition support nurses should be compulsary for all patients after PEG-tube insertion before hospital discharge inorder to to positively impact the quality of life of PEG-fed patients.
Consultation with nutrition support nurses should be compulsary for all patients after PEG-tube insertion before

hospital discharge inorder to to positively impact the quality of life of PEG-fed patients.

References:

1- Nutritional status and quality of life in patients with percutaneous endoscopic gastrostomy (PEG) in practice: prospective one-year follow-up. Klose J, Heldwein W, Rafferzeder M, Sernetz F, Gross M, Loeschke K. Dig Dis Sci. 2003 Oct;48(10):2057-63. PMID: 14627355 [PubMed - indexed for MEDLINE]

2- Long-Term Enteral Nutrition Facilitates Optimization of Body WeightMark A. Schattner, MD; Holly J. Willis, RD; Alexandra Raykher, MD; Patricia Brown, RN;Ofelia Quesada, RN; Burma Scott, RN; and Moshe Shike, MDFrom the Department of Medicine, Memorial Sloan-Kettering Cancer Center, New York, New York

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P-16

Translation and validation of a fatigue scale for people in treatment of Hepatitis C.

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Introduction: An estimated 170 million people are infected with the hepatitis C virus (HCV) worldwide. HCV infection is the most frequent cause of chronic hepatitis and an important risk factor for liver cirrhosis and hepatocellular carcinoma. Fatigue represents probably the most prominent side effect of the treatment of hepatitis C, and it develops in up to 80% of the patients.

Objectives: The study aims to: (a) translate the HIV Related Fatigue Scale (2)assess its appropriateness for use in Spain for patients in treatment of Hepatitis C (3) estimate the psychometric properties of the adapted scale.

Methods: The cross-cultural adaptation process followed internationally recognized guidelines. The process began with two independent forward translation of the instrument from the original language to the target language. The second step was the back translation from Spanish into the original language. Later, all the versions were assessed by a expert committee composed by nurses with knowledge of the two languages and a bilingual health professional. The expert committee's role was to consolidate all the versions of the questionnaire and develop a prefinal version. The last was the pretest with 20 subjects.

A cross-sectional survey to 122 persons in their fourth week of treatment in 9 Spanish hospitals was carried to assess the validity and reliability of the adapted scale.

The project was approved by the Clinical Research Ethics Committee of the 9 Hospitals that participated. Anonymity of all participants was guaranteed.

Results: The Intraclass Correlation Coefficient (ICC) for an overall score was 0,958 (CI 95%:0.943-0,970). The Cronbach's alpha for the 3 scales was 0.884 (fatigue intensity), 0.886 (responsiveness of fatigue to circumstances) and 0.934 (impairment of functioning). The Scale Content Validity Index (CVI-S) was 0.85 with 6 experts.

Discussion: A quality nurse intervening and handling fatigue, requires validated research instruments. This scale provides us with a useful tool to measure fatigue with a multidimensional view, and it help us to find effective nursing interventions in reducing fatigue, thus, we can improve the treatment adherence.

Conclusion: The overall ICC indicates a good reliability of the scale. The CVI-S shows that the fatigue is adequately represented by the items, so the instrument has a good content validation. The Cronbach's alpha reports us a good reliability of the 3 domains. We confirm the applicability of the HRFS (EFVI in Spanish) in the Spanish context and in Hepatitis C persons.

Learning Outcomes: We have got an excellent tool to explore the fatigue in people in treatment for Hepatitis C. We will be able to measure the effectiveness of the nursing interventions.

References

- Polit, DF., Beck,T., Owen, SV. Is the CVI an Acceptable Indicator of Content Validity? Appraisal and Recommendations. Research in Nursing & Health 2007; 30: 459–467.
- Pence, BW., Barroso, J., Lesermand, J.L., Harmonc, Salahuddinc, N. Measuring fatigue in people living with HIV/AIDS: psychometric characteristics of the HIV-Related Fatigue Scale. AIDS Care 2008; 20(7): 829–837.

P-17

Effects of smoking in patients with Crohn's disease (CD); a retrospective study.

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Background: A detrimental effect of smoking on Crohn's disease is known. Active smoking results in a greater risk of a flare-up of the disease activity and disease remains over longer periods of time. Furthermore, the recovery period after bowel surgery takes longer in smokers compared to non-smokers.

Aim: To examine the effects of the current smoking status (still / ever / never smoking) on the disease characteristics in patients with CD.

Methods: The study was conducted in patients with confirmed CD who were treated in the outpatient clinic of the Radboud University Medical Centre Nijmegen during the period 2007-2012. Patients were asked to fill in a questionnaire about their smoking habits. Disease-characteristics were obtained from medical records.

Results: Questionnaires were sent to 614 CD patients. In total 263 participants (42%) returned the questionnaire. Eleven (4%) were excluded because of missing data. The remaining 252 patients (84 men/168 women; mean age 50.44 years) were included in the statistical analysis. Twenty-six were still smoking (10%); 122 stopped smoking (49%) and 104 patients never smoked (41%). Twenty-one (80%) smoking patients are willing to quit smoking within 6 months. Compared to patients who never smoked, the group of currently smokers used more biologicals (31%vs27%), had more often fistulas (54%vs37%) and underwent more often bowel surgery (58%vs49%). Compared to current smokers, in the group of patients who ever smoked less use of biologicals (22%), less fistulas (41%) and less bowel surgery (54%) was found.

Summary: Current smoking is of influence on the use of biologicals, having fistulas and bowel surgery. By quit smoking the outcomes decreases.

Conclusion: We found an increased tendency towards use of biologicals, having fistulas and bowel surgery in active smoking CD patients. The rate of patients willing to quit smoking is high. Therefore, programs to support these patients to quit smoking may be advocated.

Learning outcomes: By asking for smoking habits of IBD patients, IBD nurses can play a great role to enthuse current smokers to quit smoking. A special training can help nurses to increase the total group of non smokers.

References:

- Current smoking differentially affects blood mononuclear cells from patients with Crohn's disease and ulcerative colitis: relevance to its adverse role in the disease. Bergeron V, Grondin V, Rajca S, Maubert MA, Pigneur B, Thomas G et al, Inflamm Bowel Dis. 2012 Jun;18(6):1101-11.
- Active and passive smoking behaviour and cessation plans of patients with Crohn's disease and ulcerative colitis. van der Heide F, Dijkstra A, Albersnagel FA, Kleibeuker JH, Dijkstra G. J Crohns Colitis. 2010 Jun;4(2):125-31.

P-18

Professional burnout syndrome of registered nurses at departments of endoscopy

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Timeliness: The problem of professional burnout syndrome affecting experts of different specialization is important and attracts increasingly greater attention of psychotherapists and psychologists. On the one hand, adjustment disorder in the form of professional burnout leads to the onset of wide range of psychosomatic symptoms, and on the other hand – it is attended by the work productivity slowdown, up to full vocational maladjustment.

Study purposes: To estimate psychological condition of nurses of the Yaroslavl Regional Clinical Oncological Hospital for identification of signs of professional burnout.

Materials and methods: In January – February 2013 there was conducted a survey of nurses of the Yaroslavl Regional Clinical Oncological Hospital through the method of anonymous questioning. 50 nurses were involved in questioning. It was conducted through the use of questionary MBI-HSS and questionary Myers-Briggs. Questionnaire details included: sex of the respondent, place of employment, medical experience and age.

Results: Analyzing the personal information, we received the following data: 28% of respondents showed high rates of depersonalization, 33% showed high rates of emotional exhaustion, by 38% there was educed the personal achievements reduction. According to the phase model of burnout of Golembievsky and Munzenrider 11% of respondents are in congruence with burnout phase # 1, they treat other people with respect and tact; they do their work well, considering it to be socially important. They have enough emotional resources to overcome most types of stresses, which they come across. 22% of respondents are in congruence with burnout phase # 8, for which the contrary is typical: individuals, experiencing the burnout, distance themselves from people and comparatively can't get the structural information (including the feedback) and social support; the work doesn't bring them psychological reward (moral satisfaction). At this phase the "burnt out" employees have low self-rating of personal achievements and consider their work to be unappealing, and deficiency of emotional resources necessary for handling with new stresses is also present. 67% of respondents are in congruence with intermediate phases of burnout.

The average rating is typical by the main criteria for the respondents with a clearly defined burnout syndrome. The low index of physical comfort, which reflects the working conditions (such as lightning, interior, comfort, necessary equipment) is prominent. The main psychological feature providing the stress tolerance is the degree of the personal maturity of a specialist. That is a degree of self-awareness, ability to take the responsibility, make decisions and make choices, ability to build balanced relationships with other people, openness to changes, acceptance of personal and other people's experience.

Conclusion: a distinct correlation between the burnout syndrome of the nurses and a low index of the working conditions has been revealed. The psychological condition of the 22% of the nurses corresponds to the clearly defined burnout syndrome. 75% of them are guided by logic while making decisions.

P-19

Patient Safety in Endoscopy – An audit among departments of endoscopy students

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Introduction: Technical developments in recent years have expanded the opportunities for endoscopic interventions. Many diagnostic and therapeutic interventions are associated with prolonged procedure times. It is unclear whether this has led to an increased patient risk or whether safety culture has grown in the same degree. Internal medicine can be classified as a high risk area, if one compares claim notifications, frequency and regulatory burden (1).

Aim: In this study, the importance of patient safety in endoscopy was surveyed in a sample survey which evaluated nursing associated risk assessment.

Method: A questionnaire was developed with students pursuing post basic nursing education for endoscopy nurses in Herne, Germany. Nursing related adverse events were defined (e.g. overthrow from the patient bed, mix up of endoscopic samples, mix up of patients (e.g. wrong patient). The questionnaire was tested for feasibility by using a pretest. 2863 endoscopy nurses were invited to participate in the online survey between September and December 2011.

Results: 138 of 2863 nurses answered the questionnaire online (response rate 6%):

- Instruments of clinical risk assessment were reported to always be used by 7% of respondents, frequently used by 22% and occasionally used by 33%.
- Standardised management of complaints was the best-known instrument for risk assessment (34%). 27% of nurses used "Critical Incident Reporting Systems" (CIRS) to report adverse events. Regular case discussions were used by 18% of respondents in order to improve daily practice.
- Standard Operating Procedures (SOP) were available in 74% of the respondents' departments. Specific SOP were available for the prevention of overthrow of the patient bed for 84%, for prevention of patient mix up for 80% and for prevention of sample mix up for 46%.
- 50% of nurses had already experienced nursing related adverse events in their practice. The most frequently mentioned nursing related adverse events were the overthrow of the patient bed (41%), the mix up of samples (30%) and the mix up of patients (10%).

- However, 69% of nurses estimated the risk / "Wahrscheinlichkeit' to experience an adverse event as low. If adverse events were experienced, it did not significantly change the risk assessment.
- 33% of departments have established a special complication management system, while 64% have not.

Conclusion: The sample survey showed that the term "Risk management" is known. However relevant instruments were not frequently used. Despite the use of SOP, nursing related adverse events cannot completely be avoided. The lack of a complication management system, which provides standardised workflows in case of complications, shows that an overall strategy for nursing related adverse events and complications is missing in Endoscopy.

References:

Koppenberg, J., Gausmann, P., & Henninger, M. (2012). Sicherheit und Qualität in der Gesundheitsversorgung. In Longo, Fauci, Kasper, Hauser, Jameson, & Loscalzo, *Harrisons Innere Medizin.* Berlin: ABW Wissenschaftsverlag; 18. Auflage.

Learning outcome: Attendees should

- be aware of the importance of standardised risk assessment in Endoscopy nursing
- be appreciative of instruments of risk assessment in Endoscopy
- be open to new ideas in regard to their local risk assessment

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P-20

Observations of Care Endoscopy - A European Study from: The Netherlands, Spain, Russa, UK and Croatia

Jayne Tillett, Jadranka Brljak, Marjon de Parter, Enriqueta Hernandez Soto, Evgeniya Korovina

Aim: To look at best practice and clinical care in the Endoscopy Unit and reflecting on the outcome

Method: To undertake an audit of observations of care in 5 departments in 5 countries

In each department one nurse spent 15 minutes between 08.30 and 09.30 observing practice in admission, endoscopy, recovery room and the decontamination area. Deficiencies and fields for improvements were documented.

Results: There were common themes between the countries

- Not enough equipment, not enough nurses, not enough physicians
- Design and space of endoscopy units (more space and bigger rooms, ability to dim the light in the procedure room, reduced amount of equipment in the procedure room, more storage rooms)
- Improvements needed in the decontamination area (a designated clean and dirty area with good airflow and ventilation)
- scheduling of patient, endoscopy lists
- Review of patient flow
- Looking at the mean waiting time for the patient (from arrival at the reception desk to the beginning of the procedure)
- Ensuring the team are using protective equipment (goggle mask, gloves and gown)
- Knowledge and skills
- Noise level in the department
- Communication within the team
- Ability to change and share knowledge

The five departments want best practice for patients and staff trained in endoscopy. The following aims were identified:

Conclusion: Nurses want to provide best clinical practice for their patients and training of the nursing team, but also need to understand restrictions and areas of improvements.

This project has shown that all five countries are working towards achieving best practice and patient care in their departments. We share similar problems. The observation of care is a good method to reflect daily practice within the endoscopy department, to identify areas of concern and to give positive feedback to the team.

Russia	Patient safety, knowledge ,documentation
The Netherlands	Patient safety, knowledge
UK	male and female session, space, enough scopes, equipment
Croatia	enough nurses and doctors, enough space
Spain	enough nurses, scheduled time and circuits of patients, better design of decontamination area

Learning Outcome

The nurses will be able

- to provide the patients with a high quality of care based on theory to practice .
- to become self-confident
- to be able to share knowledge between nurses in different countries

References

- ESGENA European Job Profile 2002
- European Society of gastroenterology and Endoscopy Nurses and Associates ,2008 ESGENA Core Curriculum
- Beilenhoff U et al, ESGE-ESGENA guideline: Cleaning and disinfection in gastrointestinal endoscopy, Endoscopy, 2008.; 40: 939-9576.
- The Society of Gastroenterology Nurses and Associates. Assessment, in Griffin V. (ed.) (2003) Gastroenterology Nursing. A Core Curriculum. 3e United State of America: The Society of Gastroenterology Nurses and Associates, Inc.

P-21

Empowering education of colorectal cancer survivors: A systematic literature review

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Colorectal Cancer (CRC) is expanding throughout the world, mainly in the most developed countries, accounting approximately 9.4% of the total worldwide cancer cases (World Health Organization [WHO], 2008). Therefore, urges to change paradigm, cancer nowadays, with the development of new treatments, is considered a chronic disease. Thus, the CRC survivors will increase exponentially, consequently also the health care systems burden. Therefore, improving the delivered nursing care, enabling autonomy and independence to the CRC survivors, consequently will improve their quality of life and also, consequently, will promote the reduction of the health care systems burden. Thus, to achieve that is essential to identify the nursing interventions that promotes empowering education of CRC survivors.

Objectives: Synthesize the current knowledge about the nursing interventions that promotes empowering education of CRC survivors.
Methodology: Two searches were made using CINAHL and MEDLINE electronic databases, using the PICO method. Of the 177 articles found, after their analysis, and assessing their inclusion and exclusion criteria established, and their quality using the Joanna Briggs Institute (JBI, 2011) appraisal tools, four articles were included in the review. Afterwards, the synthesis of the data regarding the research question and aim of the review was made using the JBI (2011) extraction tools.
Results: The main nursing interventions found in the four articles that promotes empowering education of CRC survivors were an multimedia education programme, an structured telephone follow-up conducted by an experienced nurse specialist, and an 17-item patient-completed continuity assessment with feedback to clinical nurse specialists and action to address the needs identified.
Summary and Conclusions: Few studies about this theme were found, therefore is essential to develop in the future researches aiming to identify more nursing interventions that promotes empowering education of CRC survivors to be implemented in the future, contributing to the reduction of the health care systems burden and more importantly for the improvement of the quality of life of the CRC survivors.
References:

- Burch, J., & Taylor, C. (2012). Patients' need for nursing telephone follow-up after enhanced recovery. *Gastrointestinal Nursing*, 10 (4), 51-58. Retrieved from *ebscohost*.
- Cusack, M., & Taylor, C. (2010). A literature review of the potential of telephone follow-up in colorectal cancer. *Journal of Clinical Nursing*, 19 (17/18), 2394–2405. doi: 10.1111/j.1365-2702.2010 .03253.x
- Joanna Briggs Institute (JBI, 2011). *Joanna Briggs Institute Reviewers` Manual: 2011 Edition*. Retrieved from http://www.joannabriggs.edu.au/documents/JBI-Reviewers%20Manual-2011%20HR. pdf
- King, M., Jones, L., McCarthy, O., Rogers, M., Richardson, A., Williams, R., Tookman, A., & Nazareth, I. (2009). *British Journal of Cancer*, 100 (2), 274-280. doi: 10.1038/sj.bjc.6604836
- Lo, S.-F., Wang, Y.-T., Wu, L.-Y., Hsu, M.-Y., Chang, S.-C., & Hayter, M. (2011). Multimedia education programme for patients with a stoma: effectiveness evaluation. *Journal of Advanced Nursing*, 67(1), 68–76. doi: 10.1111/j.1365-2648.2010.05455.x
- World Health Organization (WHO, 2008). *World Cancer Report 2008*. Lyon, 2008. Retrieved from: http://www.iarc.fr/en/publications/pdfs-online/wcr/2008/wcr_2008.pdf

Learning outcomes for audience: The importance of empowering patient education in gastroenterology oncology nursing, and the state of art concerning the nursing interventions that promotes empowering education of CRC survivors.

P-22

Survey on the implementation of guidelines for reprocessing endoscopes in the endoscopic centers of the Friuli-Venezia Giulia (north east Italy region)

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Introduction The incidence of infectious complications resulting from endoscopy is very low, but because of the high number of endoscopic procedures performed daily worldwide they remain the most frequent infections associated with the use of medical devices. Proper reprocessing of endoscopes according to established guidelines is the most effective measure to prevent the risk of pathogen transmission during endoscopy. The aim of this survey was to investigate the reprocessing techniques routinely employed in endoscopy centers in Friuli-Venezia Giulia, using as reference the Guideline for disinfection and sterilization in healthcare facilities, 2008 of the U.S. Centers for Disease Control and Prevention (CDC).
Materials and methods The survey, conducted between October 2010 and February 2011, involved all the 22 (public, private or semi-private) regional centers of gastrointestinal endoscopy and bronchoscopy. A self-report questionnaire was used to collect both general information about the centers and their staff and data on specific issues, such as characteristics of the facilities where endoscopes were reprocessed, equipment available, methods for cleaning and disinfection/sterilization, training and safety of the personnel assigned to reprocess endoscopes and quality monitoring procedures.
Results With regard to the structural aspects, the data collected indicate that in more than 70% of the centers the facilities used for the reprocessing of endoscopes were adequate, and equipped with a suitable ventilation system in about half of the centers. All the centers had automated endoscope reprocessors and used appropriate disinfectants.
In most cases the personnel who reprocessed endoscopes had good knowledge of biological and chemical hazards, but only approximately half of the centers had specific educational programs. Almost all centers had endoscope reprocessing protocols, though not always comprehensive, but only 9 had a record-keeping system covering all steps of the process. Personal protective equipment, such as gloves or masks, was used routinely in almost all centers, and microbiological tests were performed on a regular basis in more than half of the centers. According to the reprocessing personnel, poor compliance with the recommendations provided by guidelines and protocols might be attributed to a series of factors including excessive workload (31.8% of the centers), shortage of staff or equipment (22.7%) and lack of an effective record-keeping system (31.8%).
Conclusions Overall, the level of compliance with reprocessing guidelines may be considered acceptable, even if the results obtained for the various centers were heterogeneous. However, there is clearly still room for improvement, both in terms of procedures and quality of staff training.

Key words: endoscope reprocessing, guidelines, gastrointestinal endoscopy, bronchoscopy, healthcare-associated infections (HAIs)

P-23

A new method for storage and transportation of flexible endoscopes

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Introduction: A change, in practice to provide a system, where by a scope is always ready for patient use. Sure Store is manufactured by Medical Innovation UK. The current practice after the endoscope has been reprocessed involves either 72 hours storage in the drying cabinet, or 3 hours if directly from the washer disinfector (AER). This has an impact on busy unit and the transportation across sites.
Aim: To be able to transport scopes across sites safely in a decontaminated state ready for use, without the limiting time restrictions. Elimination of the 72 hours drying cabinet storage limit (3 hours from AER) will allow flexibility within the Endoscopy department for reprocessing. Scopes can then be easily stored and transported in sealed packs up to 35 days prior to use.
Method: A scope from the AER is subjected to a five minute process which involves minimal handling of the device and utilizes a touch screen computer system which prompts each step in the process.
On completion of a successful cycle through the AER the scope is placed in a purpose designed contoured tray which works in conjunction with the sure store system using a sterile liner underneath the scope.
The scope connectors are attached to the Sure Store system where hepa filtered air is flushed through the endoscope to ensure residual water from the AER process is removed, 1.5% Hydrogen peroxide solution is used to purge the system and any excess fluid is collected in a sterile pad.
Once the purge is complete the scope and contoured tray are placed in a vacuum pouch which is sealed with a zip lock and adhesive strip, the air is evacuated from the pouch via a one way –port: to ensures the integrity of the scope for up to 35 days before the requirement of reprocessing through the AER.
The sure store system is fully traceable. The system includes the machine, scope connectors computer and touch screen,12 contoured trays, solution for 50 cycles and 50 pouches and tracking labels
Conclusion: This is a big advance in the decontamination and reprocess of flexible scopes and offers more flexibility in departments who are under pressure the meet the demand of strict time frames.
For the proactive and effective management within the Endoscopy Department whereby all the scopes can be processed and stored ,until required, for up to 35days.This will avoid staff having to come in early to prepare scopes and time conflicts with clinics . This system for reprocessing of scopes is to be used off site and also provides transport boxes to move the equipment from site to site.
Flexibility: The system has been validated for use by Fujinon, Olympus and Pentax – no damage to the scopes was recorded. This process and equipment has been tested by Lional Pineau in Marseille.
Learning Outcomes: To share knowledge of a new concept in decontamination and storage

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9. Announcement for next ESGENA Conference

ESGENA

European Society of Gastroenterology and Endoscopy Nurses and Associates

18th ESGENA CONFERENCE

18-20 OCTOBER 2014
VIENNA, AUSTRIA

UNITED EUROPEAN GASTROENTEROLOGY
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IN CONJUNCTION WITH:
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Call for Abstracts for 18th ESGENA Conference

ESGENA invites colleagues from Europe and from all over the world to present their experience, studies and projects at the 18th ESGENA Conference in October 2014 in Vienna, Austria. Participants wishing to submit abstracts can do so **only in electronic format** by sending a **MS Word document** with their abstract by e-mail to:

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ESGENA scientific secretariat
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The authors will receive an official confirmation within 3-5 days after submitting their abstract. If authors do not get an official confirmation within 5 days, please send the abstract again to Ulrike Beilenhoff and a copy to the ESGENA technical secretariat: info@esgena.org.

Deadline for submitting abstracts: 31th May 2014

General Information on Abstract Submission

Participants are invited to submit original scientific abstracts for oral or poster presentation.
Authors have to conform to the following guidelines for abstract submission. **Those not conforming to the guidelines will not be considered for reviewing.**

- Abstracts must be submitted in English and must be presented in English.
- Abstracts will be reviewed by a panel of experts and may be selected for oral or poster presentations, or may be rejected.
- Notification of acceptance (for oral or poster presentation) or rejection by the Scientific Programme Committee will be e-mailed to the presenting author by June 30, 2014.
- Detailed information, guidelines and recommendations for oral or poster presentation, as well as day, time and room will be sent in due time to duly registered presenting authors. The time allotted for each oral presentation will be 10 minutes, followed by 5 minutes of question time. During the poster round, authors of posters should also be prepared to answer questions in English.
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The abstract should be typed as follows:

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You can use the template to complete all sections

Scientific Abstract Template (limit: 500 words or one A4 page) - Please complete ALL Sections	**Explanatory Notes When completed, and before submission – delete this column**
Title	10 – 12 words that capture the relevance and essence of the research
Introduction / Background	➢ What has been investigated ➢ Why is the research important. ➢ Context of the study - has something similar already been done and how the presented work differs
Aims / Objectives	➢ The purpose of the **RESEARCH** / project– *not of the abstract*! ➢ Providing a brief synopsis ➢ Hypothesis, question or concept underpinning the research.
(Research) Methods * **Please indicate which methodology you have used and delete non-applicable methods:** ➢ Randomized Controlled Trial (Intervention) ➢ Meta-Analysis ➢ Systematic Review ➢ Cohort Study (Prediction) ➢ Qualitative Research Studies (Exploration) ➢ Service / Program Evaluation ➢ Audit ➢ Case Report ➢ Other: *state which*	➢ Should describe **HOW** the AIMS of the research were achieved. ➢ What the research/project involved - for example: * Short description of the study design * Underpinning theoretical or conceptual frameworks, * Sampling technique(s) used, e.g. qualitative or quantitative, * Retrospective or prospective * Method of data collection: e.g. review, surveys, focus groups, patient cohorts etc. * Sample size, criteria for selection and exclusion, * Randomised or non-randomised. * Type / method(s) of data analysis (tests) * Statistical or interpretative analysis software programs used (GENERIC name of the software) * If applicable: state if *Ethics Approval* was obtained.
Findings / Results	What the research discovered ➢ Synopsis of the findings of the study, using key data to demonstrate the outcomes. ➢ Avoid simply citing data, particularly in quantitative studies. ➢ State statistical significance (quantitative studies) ➢ Synthesis of the data and how it answers your research question. NEVER submit an abstract without results,
Summary and Discussion	➢ Provide a short explanation of HOW the findings relate to the *AIMS*, ➢ present EVIDENCE of the findings from your *METHODS* (to support the implications of your study = conclusions) ➢ Critically define any weaknesses / strengths identified in your data
Conclusion	What the research implies ➢ **IMPLICATIONS** of the findings and ➢ how they **ADD** to the existing knowledge
Learning Outcomes + Relevance to Nursing Practice	Relevance to Nursing and how the findings can be **used/applied** in Clinical Practice