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Hello everyone,

Autumn has certainly arrived in the South. When I think about it, this time last year we had already had our first snow day here in Dunedin. It certainly isn’t as cold as that yet, but there is a definite nip to the air.

I sometimes feel that I am giving you the same news over and over again, but the committee is working on some big projects that we feel need updating to our members.

We are about to submit the application to the NZNO to progress our section to a full college. It sounds simple in a sentence but has involved quite a few years and a big commitment in time to get it done. Lorraine Ritchie, the section PNA, is extremely excited about this as she understands better than most what this change will mean to the professionalization and recognition of our gastrointestinal nursing speciality. We are also about to submit the endoscopy knowledge and skills framework to the NZNO to have it taken to Nursing Council for ratification. Many thanks to Cathy Whiteside and the IBD nurse working group who has completed the IBD knowledge and skills framework. This document has been passed onto the section for submission to Nursing Council as well. Many hours and lots of input from great nurses and consultants around the country have gone into these documents and I am hopeful they will all be received positively.

As part of the section to college application the committee has revamped documents available on the section webpage. The one that I want to highlight this quarter is the Application for Funding for conferences and meetings. We have widened the criteria to give people who are undertaking post-graduate papers the opportunity to apply for assistance. We have also modified the documents to get as much detail as possible from the applicant so that we can prioritise a tightening pool of money. Please note if you plan to apply for funding for the end of this year or next, you must use the new document, carefully read the criteria, complete all the mandatory sections and give as much detail as possible on the rest of the document. You need to have discussed your application with your manager and you must meet the article publication requirements before we will send the grant cheque.

The link to the application page is below. [http://www.nzno.org.nz/groups/colleges_sections/sections/gastroenterology/education_fund](http://www.nzno.org.nz/groups/colleges_sections/sections/gastroenterology/education_fund)

I would like to draw your attention to the very quiet start of a very important program in my report this quarter, and not just because I am one of the lucky participants. The first intake of nurse endoscopy trainees have commenced 12 months of post graduate papers at UofA. Myself, Jacqui Fletcher, Debbie Perry and Alice Washer are meeting regularly to attend lectures from some of the best educators in NZ and are well supported by our co-ordinators Jacky Watkins and Sarah Beardsley. The committee is receiving enquiries from nurses who interested in this program and we are preparing an information sheet that will give a summary of pre-requisites, academic and workplace requirements to be a successful candidate. These will be available soon on the website.

Enough for now, but please don’t hesitate to contact us via email addresses to be found on the section page.

Keep warm,

Karen Kempin Chair of the NZNO Gastroenterology Nurses Section (soon to be college)
Welcome to our second issue for 2016

Health and Safety at Work 2015

This new act became law in April 4th 2016 and has become a talking point for any business within the public or private sector. Attending courses on this subject is the norm at present.

Names and abbreviations to remember:

1. PCBU: Persons conducting a business or undertaking.
2. Officers are: Senior Management, Director and Hospital Managers
3. Workers are: Employees, Contractors, Sub Contractors, Workers of contractors and Sub contractors, Volunteers, Trainees, Persons gaining work experience

It is critical that all officers and workers within the endoscopy units know and understand their own responsibilities under this act. They must all know the nature of the business and its associated risks and hazards.

Worker engagement and participation in the workplace has been strengthened. It is important that a Health and Safety representative is appointed by the workers to identify hazards and assess risk alongside the officer and workers. Using a range of staff from different backgrounds for risk assessment brings fresh eyes. Workers must know and understand policies and processes within their workplace and use the appropriate resources available to minimise risk to health and safety.

This shifts the focus to managing critical risks or actions that reduce workplace harm rather than trivial hazards. The concept of “reasonable practicable” is also introduced with a focus on what is reasonable for the business to do with emphasis on conduct of work. Early intervention of risk is more effective.

Officers must exercise due diligence;

1. Know; by being up to date with current health and Safety matters
2. Understand :Nature of business and its associated risks and hazards
3. Resource: Appropriate resources available for use and are being used to eliminate or minimise risks to health and Safety
4. Monitor: Processes in place to monitor the organisation regarding hazards, incidents and risks to health and safety and promptly respond to these
5. Comply: Processes in place to ensure the organisation complies with HSW Act and relevant regulations
6. Verify: Have oversight of the effective use of your resources and processes

GENCA Fundamentals of Endoscope reprocessing courses are underway in New Zealand. The course in Auckland was well represented. Courses to be held are in Gisborne, Christchurch and Wellington. For course and assessment information go to the GENCA website.

Draft Infection Control in Endoscopy guidelines is available for comment on the GESA and GENCA website. Comments are to be provided by 31st May 2016 president@gesa.org.au

Karen Clarke

More Camp Purple photos and article on pp 17-23
WHAT’S NEW - WELCOMING THE LAUNCH OF THE OLYMPUS ACADEMY

Olympus Australia & New Zealand are proud to launch Olympus Academy, heralding a new approach to practitioner learning and development. The official launch took place recently in the Olympus head office in Melbourne. The evening was attended by 30 customers from various institutions.

Olympus Academy will offer a number of programs to suit the training needs of medical professionals, working in the Endoscopy departments, Operating Theatres and Sterilisation departments. These will be delivered in a convenient and interactive learning environment, with the aim to receive accreditation from relevant professional bodies such as ACORN and ACN.

The Olympus Academy is a model based on the Olympus University concept which has been in operation across the United States and Canada for many years and is now a highly regarded provider of advanced educational and training programs in healthcare. With the launch of Olympus Academy locally, we hope to replicate this success and provide you with support and why you should choose ‘Olympus for life’. Plans are underway to schedule the launch in New Zealand – watch this space.

SYDNEY INTERNATIONAL ENDOSCOPY SYMPOSIUM (SIES) 2016

Olympus was a Platinum Sponsor once again at the 9th annual SIES 2016 which took place on the 25-26th of February with the Westmead Endoscopy Nurses Day on Wednesday 24th February.

This year we launched a number of new EndoTherapy devices such as short-wire sphincterotomes CleverCut3V with C-channel, nitinol EUS-FNA needle EZShot3Plus, as well as StoneMasterV; a device that is designed to perform both sphincterotomy and sphincteroplasty. Another new addition is our range of NeedleMaster injector needles that offer superior puncturing capability, a large flow rate for viscous liquids and a user-friendly handle design. We hope you had the opportunity to see these products on our booth.

DID YOU KNOW?

Did you know that Olympus currently offers disposable tubing and adapter solutions for auxiliary channel flushing. This is used in conjunction with OFP and OFP-2 Flushing Pumps. The MAJ-1651 Auxiliary Water Channel Tube and MAJ-1652 Auxiliary Water Channel Adaptor is for single patient use. This eliminates sterilisation requirements, as this tubing connects directly to the water bottles. The built in clip and direct connection to the water bottles eases clean up in between cases, prevents backflow of contaminants and leakage. This makes it easily disposable at the end of a list, hence saving costs of sterilisation and increasing patient safety.

If you would like more information on Olympus products and services, please contact: Elizabeth Spanner (elizabeth.spanner@olympus.co.nz), Andre McCallaghan (andre.mccallaghan@olympus.co.nz), Esther Scott (esther.scott@olympus.co.nz), or Karen Ferreira (karen.ferreira@olympus.co.nz). Alternatively, contact Olympus New Zealand Customer Service on 0508 659 6787.
Is It Time To Review The ‘Time Out’ Process?

By Julie Denby RN

Gastroenterology Department, Christchurch Hospital

I have been fortunate enough to complete the Post graduate Certificate in Perioperative Speciality Nursing provided by Whitireia New Zealand. A key component of the course was quality assurance in clinical practice and patient safety. Patient care that is safe, evidence based and of a high quality is increasingly a priority for any modern healthcare system in the drive for cost effectiveness. As part of my studies I reviewed the safety checks carried out by the clinical team prior to an endoscopy procedure more commonly known as time out and the use of safety checklists in healthcare. The implementation of checklists to improve quality and ensure safety has gathered momentum in the health care sector based on their effectiveness in other areas most notably the aviation industry. For me this raised the question, is this the time to consider the implementation of an endoscopy safety checklist in our department to improve efficiency and maximise patient safety?

Quality Assurance and the Endoscopy Global Rating Scale

The aim of quality assurance is acting in a way that intends to improve quality of care and provide clear guidance. This maintains a certain standard of practice and allows for continuous improvement and professional development (Storey, 2012). Given the rising demand for investigative and increasingly complex therapeutic endoscopy procedures, added to an aging population with multiple medical issues the risk of error is there (Matharoo, Thomas-Gibson, Haycock & Sevdalis, 2013). The Endoscopy Global Rating Scale (GRS) was introduced as a self-assessment tool that provides a quality framework for service improvement (Global Rating Score-NHS, 2008). The GRS enables endoscopy departments to assess the quality of their service and identify areas for improvement. An example of this was demonstrated by RN’s Kirsty Sherley and Jan Paraiso at Auckland City Hospital (2015). They developed a pre-assessment checklist and concluded it made their endoscopy outpatient admission process more efficient. This lends itself to the idea that a safety checklist could be developed to use in endoscopy procedural rooms based on the World Health Organisation’s (WHO) surgical safety checklist (WHO, 2008/9).

The surgical safety checklist

In response to growing international evidence the WHO introduced a surgical safety checklist that has been adopted on a global basis. The aim was to reduce patient harm caused by medical errors. In the USA it was estimated that up to 98 000 patients die each year as a result of a preventable medical error (Kohn, Corrigan, & Donaldson, 1999) and in the UK 10% of all patients endured a medical error (Matharoo, Thomas-Gibson, Haycock & Sevdalis, 2013). Staff in operating theatres followed the checklist for each patient before and after they underwent any surgical procedure. The WHO demonstrated that the use of a safety checklist by the clinical team improves communication and adherence to standards in the perioperative environment. This improves patient safety and the quality of care because it creates the opportunity for the whole clinical team to engage in dialogue, exchange information and address any concerns thus reducing adverse events (Weiser & Berry 2013). The Health Quality and Safety Commission (HQSC) New Zealand in their Statement of Intent (2013) concluded that based on international evidence, the introduction of the WHO surgical safety checklist reduced patient harm by a third. The WHO’s checklist is divided into 3 sections and includes;

Sign in (before any intervention)

- Check identity
- Check correct procedure
- Consent
- Allergies
- Pulse oximeter on patient and functioning
- Airway difficulties identified

Time out (before incision/procedure)

- All team members introduce themselves
- Any patient concerns
- Any equipment concerns
- Medications
- Imaging requirements

Sign out (before patient leaves the room)

- Nurses verbally confirms with the team the name of procedure carried out
- All counts are correct
- Specimen labelling
- Equipment issues identified
- Review of key concerns regarding patients recovery and management
Is It Time To Review The ‘Time Out’ Process? continued

**SURGICAL SAFETY CHECKLIST (FIRST EDITION)**

### Before induction of anaesthesia

**SIGN IN**
- **PATIENT HAS CONFIRMED**
  - IDENTITY
  - SITE
  - PROCEDURE
  - CONSENT
- **SITE MARKED/NOT APPLICABLE**
- **ANAESTHESIA SAFETY CHECK COMPLETED**
- **PULSE OXIMETER ON PATIENT AND FUNCTIONING**
- **DOES PATIENT HAVE A:**
  - KNOWN ALLERGY?
    - NO
    - YES
  - DIFFICULT AIRWAY/ASPIRATION RISK?
    - NO
    - YES, AND EQUIPMENT/ASSISTANCE AVAILABLE
  - RISK OF >500ML BLOOD LOSS (7ML/KG IN CHILDREN)?
    - NO
    - YES, AND ADEQUATE INTRAVENOUS ACCESS AND FLUIDS PLANNED

**TIME OUT**
- **CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE**
- **SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM**
  - PATIENT
  - SITE
  - PROCEDURE
- **ANTICIPATED CRITICAL EVENTS**
  - **SURGEON REVIEWS:** WHAT ARE THE CRITICAL OR UNEXPECTED STEPS, OPERATIVE DURATION, ANTICIPATED BLOOD LOSS?
  - **ANAESTHESIA TEAM REVIEWS:** ARE THERE ANY PATIENT-SPECIFIC CONCERNS?
  - **NURSING TEAM REVIEWS:** HAS STERILITY (INCLUDING INDICATOR RESULTS) BEEN CONFIRMED? ARE THERE EQUIPMENT ISSUES OR ANY CONCERNS?
- **HAS ANTIBIOTIC PROPHYLAXIS BEEN GIVEN WITHIN THE LAST 60 MINUTES?**
  - YES
  - NOT APPLICABLE
  - IS ESSENTIAL IMAGING DISPLAYED?
    - YES
    - NOT APPLICABLE

### Before skin incision

### Before patient leaves operating room

**SIGN OUT**
- **NURSE VERBALLY CONFIRMS WITH THE TEAM:**
  - THE NAME OF THE PROCEDURE RECORDED
  - THAT INSTRUMENT, SPONGE AND NEEDLE COUNTS ARE CORRECT (OR NOT APPLICABLE)
  - HOW THE SPECIMEN IS LABELLED (INCLUDING PATIENT NAME)
  - WHETHER THERE ARE ANY EQUIPMENT PROBLEMS TO BE ADDRESSED
  - **SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE REVIEW THE KEY CONCERNS FOR RECOVERY AND MANAGEMENT OF THIS PATIENT**

### Additional Notes

- **THIS CHECKLIST IS NOT INTENDED TO BE COMPREHENSIVE. ADDITIONS AND MODIFICATIONS TO FIT LOCAL PRACTICE ARE ENCOURAGED.**

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*The TUBE 8  Volume 44 Issue 2 May 2016*
Staff compliance

Subsequent studies have shown that the surgical safety checklist when fully completed does reduce harm and improve staff communication but the effectiveness of the checklist is dependent on staff compliance (van Klei et al., 2012). A summary of evidence by the HQSC (2015) concluded that a mandatory introduction of a safety checklist does not necessarily improve patient outcomes. The aim of any checklist is not only to act as a tick box safety tool but to engage staff in communication. It is the combination of a checklist, the improved staff communication and better teamwork that improves patient safety and prevents errors. The Auckland District Health Board (ADHB) took part in the pilot scheme for the implementation of a surgical safety checklist in operating theatres and have since conducted an audit of their services. Tracey Lee, Nurse Consultant at ADHB recommended engaging staff in the implementation of a checklist. This includes a multidisciplinary approach, staff are amiable to suggestions of change in practice and have time to review and give input. Strong clinical leadership and a zero tolerance to non-compliance was also important. This was reflected in the HQSC’s (2012) report into attitudes in New Zealand regarding checklists. It concluded that surgeons take the lead role in an operating theatre and the more compliant they were towards the checklist the more robustly it was followed by the team. The HQSC also recommends that the checklist is displayed on wall mounted posters to act as a visible reminder for all staff to follow a set process to ensure the same standard of care for each patient. The ADHB audit found that posters did indeed increase staff compliance (Lee, 2015).

Endoscopy safety checklist

Any department that performs invasive procedures with patients receiving conscious sedation or a general anaesthetic is required to complete a time out process in accordance with their hospital policy. Although our department follows a time out process other endoscopy departments in New Zealand have not taken a proactive approach to enhance communication and teamwork that minimises the risk of errors causing our patients harm. I would be interested to know what process other endoscopy departments in New Zealand follow.

References


Is It Time To Review The ‘Time Out’ Process? continued

Endoscopy Safety Checklist

**STAGE 1 SIGN IN:**

**START: TEAM HIUDDLE – indications for procedure, any special equipment required etc.**

To be read out loud once the patient in treatment room but BEFORE IV sedation is given, using the patient’s notes.

**All team members to introduce themselves to each other and the patient by name & role?**

**Nurse verbally confirm with the patient and team**

- **Patient Name □**
- **Hospital Number □**
- **Consent form signed □**

**Indication for procedure?**

- **Yes □**

**Are there any specific endoscopic equipment requirements?**

- **No □**
- **Yes □**

**Antibiotic prophylaxis / difficult airway / aspiration risk?**

- **No □**
- **If Yes - Is equipment available? □**

**Risk of blood loss?**

- **No □**
- **If Yes – Adequate IV access / fluids planned & available □**

**Nurse: Any patient specific concerns?**

- **Pacemaker / ICD □**
- **Takes warfarin / clopidogrel? INR checked □**
- **Blood Glucose □**
- **Allergies □**
- **Antagonists to benzodiazepines and opioids available □**
- **Other □**

**STAGE 2 SIGN OUT:**

To occur at the “lights on” phase before the patient leaves the endoscopy treatment room.

**Nurse: Documentation**

- Photos labelled and attached to notes? □
- Has the register been completed? □
- Nursing Documentation complete? □

**Have drugs administered been recorded**

- Yes, have they been signed for? □

**Have the specimens been labelled correctly?**

- Patient details checked? □
- Number and description of biopsies? □
- Documented in nurse care plan? □

**Endoscopist:**

- Correct patient on reporting software?
- Any specific post procedure instructions? To be documented on endoscopy report.
  - e.g. Observation frequency
  - NBM status
  - Oxygen Therapy
  - IV Therapy
  - Restart Warfarin

**Any other specific Instructions?**

- **No □**
- **Yes □** (e.g. CNS required, Outreach escort ITU/Theatre transfer, PEG care plan commenced)

**END: TEAM HIUDDLE – equipment problems, glitch count, recovery instructions etc. - document in notes.**

**Checklist Co-ordinator:____________________**

**Signature:________________________________**

**Date:___________________________________**
Premium Endoscope Channel Cleaning Devices

The Assurance of 5 Cleaning Actions

Scientifically proven improvement over existing brush technology*

In November 2015 I was fortunate enough to attend the New Zealand Society of Gastroenterology Annual Scientific Meeting in Rotorua. This was made possible thanks to the financial assistance of the New Zealand Gastroenterology Nurses Section (NZGNS), the Canterbury District Health Board (CDHB) and the support of my Charge Nurse Manager Gendy Bradford to whom I am exceedingly grateful.

This year’s program provided me with a wealth of new knowledge and ideas and there are numerous topics about which I could have written. The main theme of the conference was ‘Ethnic Differences in GI and Liver Disease’ which provided much debate and discussion. There were 3 very thought provoking talks on health inequalities over the 3 days. The first by Dr Nina Scott, Maori Public Health Physician at Waikato DHB, another by Prof Diana Sarfati, Public Health Physician and cancer epidemiologist at the University of Otago, Wellington and finally one by Dr Barry Smith, Population Health Analyst, Lakes DHB. For this article I have drawn on those presentations and published literature in order to attempt to briefly explore the ethnic health inequalities which exist in New Zealand with relation to colorectal cancer (CRC) in particular.

There are significant and well documented health inequalities among different groups of New Zealanders. Overall Maori have poorer health and die younger than other New Zealanders. The average life expectancy at birth for non-Maori Males is 80.2 years, but for Maori males that decreases to 72.8 years. There is a similar disparity for females. Non-Maori females’ life expectancy is 83.7 years but for Maori it is only 76.5 years. Life expectancy for Maori has improved significantly since the 1950s but still lags behind that of non Maori by 7-8 years.

Cancer is an increasingly important contributor to the difference in life expectancy between Maori and non-Maori New Zealanders (Hill et al, 2010). Maori adults over the age of 25 have significantly higher rates of cancer than non-Maori and have mortality rates more than 1.5 times higher (Ministry of Health 2015). This difference is in part due to drastically increased rates of certain cancers. Maori females are over four times more likely to get lung cancer and are over four times more likely to die from it than non-Maori (Ministry of Health 2015). This is not surprising data as smoking rates in Maori adults are significantly higher than those of non-Maori. In a 2012/13 survey 18% of all adult New Zealanders were smokers but the figure for Maori adults was 39% (Ministry of Health 2014).

The very concerning fact is that even in the case of cancers which affect Maori at significantly lower rates than non-Maori, such as prostate and colorectal cancer, the mortality rates for Maori are still equal to, or in some cases even higher than those of non-Maori. This indicates that Maori with cancer are more likely to die from it than non-Maori (Ministry of Health 2015).

As this graph demonstrates, colorectal cancer rates are significantly lower for Maori males than for non-Maori males. However, as we can see in the next graph the mortality rates are slightly higher. Why should this be?

Colorectal cancer (CRC) is one of New Zealand’s most deadly cancers. Approximately 2500 New Zealanders per year are diagnosed with CRC and 1100 die from the disease each year (Ministry of Health, 2006). Age adjusted incidence of CRC is lower in Maori when compared with non-Maori populations, but mortality rates are now similar. Whilst mortality rates have
Ethnic Health Inequalities in Colorectal Cancer continued

decreased in non-Maori they have been increasing in Maori (Hill et al 2010). The reason for this disparity has regularly been put down to delays in presentation and therefore more advanced disease at time of diagnosis in the Maori population. However, the research done by Hill et al (2010), showed that this is not the case. They found that contrary to belief Maori patients were not more likely to present with advanced disease and generally had lower-grade tumours and a higher proportion of well-differentiated tumours. But despite this, they had a 30% higher risk of dying from their CRC.

Obviously there are many complex reasons for this disparity and there is not one simple solution. Several reasons were discussed at conference and they all have a part to play. The research done by Hill et al (2010), demonstrated that comorbidities and smoking are significant factors in the increased mortality rates for Maori. It is well documented that there are much higher rates of diabetes, cardiovascular and respiratory disease in Maori patients than non-Maori. It also showed that Maori patients are less likely to undergo definitive surgery (complete removal of the tumour either at colonoscopy or at operation) and are less likely to be offered adjuvant chemotherapy than non-Maori patients. The other significant factor demonstrated by the research, was access to health services. Maori patients are four times more likely to live in rural areas and more likely to live in areas of high economic deprivation. As a result, they are more likely to be treated in secondary (smaller) public healthcare facilities and are less likely to receive their treatment in a specialised cancer centre or private hospital (Fig 4.). When all these factors were taken into account the research found that Maori patients were only 7% more likely to die from their CRC than non-Maori patients.

Even if individual facilities in New Zealand provide equitable care, the structure of the health system as a whole may result in unequal care for Maori and non-

Maori patients, a form of institutional racism and an important cause of survival disparities.’ Hill et al 2010.

Attention to healthcare delivery is a key step in improving cancer care for Maori and reducing disparity. Dr Barry Smith highlighted the need for a joint approach across all areas. He stated that ‘...if systems were put in place that worked for Maori, they would work for everyone but the reverse is not true’. He said ‘the issue of health inequality is everyone’s responsibility, not just the Maori health team or the Maori health professional’. Everyone present agreed we need to continue to monitor treatment and outcomes by ethnicity in order to feedback on and improve services for all.

Where to from here? It is heartening to know that there is a lot of work being done by the Ministry of Health to address the problem of inequality in health. Reducing inequality is one of the main focuses of The New Zealand Health Strategy and features strongly in DHB annual plans. Dr Nina Scott praised the government’s current vision for Maori health ‘Pae Ora – healthy futures’, which is a holistic concept encompassing 3 interconnected elements:

- Maui Ora – healthy individuals
- Whanau Ora – healthy families
- Wai Ora – healthy environments.

‘Pae ora’ encourages everyone in the health and disability sector to work collaboratively, to think beyond narrow definitions of health, and to provide high-quality and effective services (Ministry of Health 2015).

As we move towards implementation of a national bowel screening program in New Zealand, a study has been done alongside the Waitemata pilot by Pitama et al (2012), to determine the factors which discourage, and those factors which enable Maori participation in a
Ethnic Health Inequalities in Colorectal Cancer continued

screening program. It is hoped, the pilot program will provide further feedback from Maori participants to help ensure a national screening program that is tailored to meet the needs of all New Zealanders and ensure equitable access.

I left the conference reflecting on Dr Nina Scott’s talk. She encouraged us all to take a hard look at our own personal bias and to address any racism we might find there. She recommended we all take an implicit bias test online to unearth what bias we may unknowingly have. She believes everyone has an implicit bias towards or against certain people, be it based on race, gender, age, socioeconomic status, weight, smoking, drug use, sexuality or any other factor. If we can become more aware of our bias, we can look at the cause of that bias and try to make sure it doesn’t influence our behaviour.

https://implicit.harvard.edu/implicit/takeatest.html

References


The Use of Entonox in Endoscopy Procedures

In November 2015 I was fortunate enough to attend the New Zealand Society of Gastroenterology Annual Scientific Meeting, held in Rotorua at the Energy Events Centre. I would like thank the New Zealand Nursing Organisation (NZNO), Gastroenterology Nurses Section for providing me with the financial support to attend this conference.

It was a wonderful opportunity to listen to Gastroenterologists and Gastro Nurses speak about their areas of expertise. The chance to network and discuss ideas and practises in our own units was of particular value to me.

The presentation by Dr Babak Hedayati, Consultant Anaesthetist, at Lakes DHB and the question time that followed has led me to my topic for discussion.

I was interested to learn more about the use of Entonox in endoscopy procedures. Dr Babak Hedayati answered a question in relation to General Anaesthesia, but there was no reference to the use of Entonox alongside, or instead of conscious sedation. I spoke with my nursing colleagues at conference and in the Christchurch Gastrointestinal Investigation Unit, about their view on the use of Entonox during endoscopic procedures. It would be a great asset for changing PEG tubing and they thought it would be really helpful to use so that the Endoscopist is able to complete the procedure with minimal discomfort to the patient. They also thought that it could be effective in cases of last trimester pregnancy. As a result, I have decided to pursue this topic further.

Having worked in other areas of the hospital where Entonox is administrated effectively, either alone or alongside other analgesic medications. I believe the patient experience during an endoscopic procedure could at times be enhanced with this option available.

Midazolam and fentanyl are the most commonly used drugs in the Christchurch Gastrointestinal Investigation Unit (GIU) for conscious sedation. If these medications are given in the ‘best practice method’ as described by Medsafe, then this sedation, alongside medical and nursing practitioners that practise good iatrosedation techniques, is generally all that is required for the Endoscopist to complete the procedure with minimal discomfort to the patient.

Iatrosedation is described by Dr Nathan Friedman as “the technique of communication, between doctor and patient creating a bond of trust and confidence”.

Susan Smith Enrolled Nurse (EN) Gastrointestinal Endoscopy Unit, Canterbury District Health Board (CDHB)
Please join us for the annual

Charge Nurse Managers Study Day

Friday, August 19th, 2016
9:00am – 4:00pm
Wakefield Hospital, Wellington

Interim Session plan
• Welcome and Introductions
• Nurse Endoscopy Program
• Bowel Screening
• National projects
• HR issues

Please contact Karen Kempin for further information and expression of interest

Chairofnzgns@gmail.com  mobile 022 0390632
The Use of Entonox in Endoscopy Procedures cont

Friedman (1967), maintains that patients possessing trust/confidence in their health provider will be more relaxed and more co-operative. This technique is particularly beneficial for colonoscopy procedures, where the pain and discomfort that is often experienced can limit its completion. Trying to alleviate and control pain during endoscopic procedures such as colonoscopy, often has physicians and surgeons using a wide variety of techniques, medication, instruments and even nonconventional methods, i.e. acupuncture (Cochrane Colorectal Cancer Group, 2011).

Therefore, what can we provide for our patients that experience pain and discomfort? Initially, we could give more intravenous medication, but this may increase airway reflexes and respiration risks to the patient. Secondly, we could stop the procedure and rescheduled, or proceed to a CT colonography. However, this would entail another dose of bowel preparation, another visit to hospital and may increase the patient’s anxiety. What if we had Entonox available? Could the patient better tolerate the pain and discomfort experienced, that would allow completion of the endoscopic procedure?

Optimal analgesic should have rapid onset, short duration, few side-effects and no major adverse reactions. Nitrous oxide, known as Entonox since 1776, is perhaps the drug that comes closest to meeting the ideal (Bochealthcare, 2010).

What is Entonox?

Entonox or Equinox or commonly referred to as ‘laughing gas” or ‘gas and air’, has been used in the National Health Service (NHS) since 1965 for relieving pain and anxiety. It was first discovered by Joseph Priestly in 1793, but was not used until 1844 by the Dentist Dr Horace Wells, now dubbed the “discoverer of anaesthesia” (The Pennine Acute Hospitals NHS Trust, 2014). It consists of a mixture of nitrous oxide (N₂O) and oxygen (O₂), and it comes as a ready-to-use medical gas mixture 50% nitrous oxide and 50% oxygen. Nitrous Oxide

Why use Entonox?

Entonox is a ready to use medical gas. It provides safe and effective short-term pain relief and sedative effect, without loss of consciousness. It is a predictable and reliable analgesia with properties that also reduce pain anxiety with minimal side effects and rapid onset. It is also easy to use and can be self-regulated. Further to this, it can offset by savings, through reduced treatment time and increased patient turnaround (Bochealthcare, 2010).

The effects of the Entonox gas will be reached/felt after approximately 6-8 inhalations. After stopping inhalation, the gas and its effects wears off. Within eight minutes it will have disappeared completely from your body. Due to this, you do not require supervised care for twenty four hours afterwards as opposed to receiving intravenous sedation. In addition, within thirty minutes of ceasing to breathe Entonox gas you can drive again (The Pennine Acute Hospitals NHS Trust, 2014).

What are the side effects of Entonox?

There are no serious risks and very few side effects from inhaling Entonox gas. Occasionally you may feel some light headedness, some tingling in the fingers and face and a little sickness or dizziness. This usually happens if you are breathing the gas in and out too quickly, called ‘hyperventilating’. If this does occur, the nurse will tell you to slow down your breathing to normal breathes and the side effects will stop. Entonox is not always suitable for everyone and there are conditions/illnesses where Entonox gas cannot be used. These are:-

- Any ear disorder or previous ear/eye surgery
- Any facial injuries • drunk/intoxicated patients
- Patients with head injuries
- Within 72hrs of diving using oxygen tanks
- Patients who have previously suffered the bends from deep sea diving.
- Patients who are heavily sedated or unconscious
- Severe/bad COPD/asthma (oxygen levels which are normally below 94%)
- Previous chest injuries
- Any kind of previous pneumothorax (air in-between the lungs membranes)
- First 16 weeks of pregnancy
- Patients with laryngectomy (throat surgery)

How is Entonox Administered?

Entonox is designed to be self-administered; supported by a doctor or nurse that has received specific training to teach correct breathing techniques to the patient.

A face mask or mouth piece is used to administer Entonox and the gas flow is controlled by a demand-valve activated by inhalation. The longer or deeper the breaths that are taken, the greater the amount of Entonox absorbed, providing rapid analgesia. The effects of the Entonox gas will be reached/felt after approximately 6-8 inhalations. The exact way Entonox works to provide pain relief is not fully understood, however it is thought to work in the brain and the spinal cord reducing pain from being felt (Guy’s and St Thomas’ NHS 2014).

The patient controls the dose and under normal conditions there is no risk of overdose as the flow is maintained by his/her level of consciousness. The Entonox is excreted by the lungs, largely unchanged, and then eliminated when inhalation has ceased. The Entonox gas will take about 8 minutes to disappear.
The Use of Entonox in Endoscopy Procedures cont

completely from the body (Bochealthcare 2010, Guy’s and St Thomas’ NHS, 2014, Pennie Acute Hospitals NHS, 2014).

During my research, I found it interesting that Entonox is readily available but not often utilised. It appears further studies are required to encourage its use during endoscopic procedures. A recent survey of Endoscopists within the English Bowel Cancer Screening Programme (BCSP) asked them to assess availability, current practices and perceptions towards nitrous oxide. Interestingly, 68% of Endoscopists that participated in the survey, perceived nitrous oxide to be effective during a colonoscopy, reducing inconvenience and would use it themselves if they required a colonoscopy. Further to this, many of the Endoscopists surveyed believed further studies to improve patient selection and optimise the use of nitrous oxide would be of value (J. Ball, 2014).

In conclusion, whilst Entonox is not the ultimate solution to patient pain and discomfort that I had imagined when I first thought about its application in the GIU, the fact that it has quick onset, lasts for a short time and has few side-effects enabling the patient to recover quicker suggest that it could be beneficial for some patients. Further studies on this topic would be of value and I will follow this with interest.

It is important to maintain our focus on the patient journey and experience and in doing this, I believe Entonox would be a great added option to the Endoscopy Unit, either for colonoscopy, sigmoidoscopy or removal/replacement of PEG tubes.

I would like to finish with a patient’s quote from an online forum:

‘Just returned from having a colonoscopy, I had the procedure with Entonox (gas and air), yes it was a little uncomfortable, but certainly not painful. The doctor who carried out the procedure was excellent, as were the nurses and aftercare. I was able to walk out and drive home within 30 minutes of the procedure ending. Please don’t be afraid, it may save your life.’

References:
Bochealthcare, UK, information guides, 2010
Guy’s and St Thomas’ NHS foundation Trust, leaflet number, 3874/VER1, 2014.
Pennie Acute Hospitals, NHS Trust Patient information guide, 2014.
Cochrane colorectal Cancer Group, 2011
Sullivan 2003

Camp Purple Live January 24th-28th 2016

Here’s to another very successful camp!

This year the camp was held at Living Springs in Lyttleton, Christchurch, where the views were amazing. An increase in campers saw 48 kids from all over New Zealand attend. Approximately 50% of campers returned from last year which is fantastic, while others had never been to camp before let alone meet another child with the similar illness. Some of the older teens from last year’s camp were invited this year as junior volunteers. There were around 25 other volunteers including the organising team, and the medical team. All parents were invited to attend the parent seminars at the beginning of the camp and there were 28 parents who took up such a fantastic opportunity.

From the medical point of view things were smoother this year as we learnt a lot from our first camp. The kids

By Karen Murdoch, IBD CNS, Hawkes Bay DHB and Nideen Visesio, IBD CNS, Waitemata DHB
ParaScope Protein Test

- Conforms to BS EN ISO 15883
- Results within 10 Seconds
- Easy to use - no incubation required
- Clear colour change
- Cost effective
- For use with:
  - Endoscopes,
  - WD / Ultrasonic surfaces,
  - Surgical instruments

The ParaScope protein test is a rapid test that has the ability to detect residual proteins left behind on the surfaces of washer-disinfectors, ultrasonic cleaners, endoscopes and other hard to clean surgical instruments. This protein test is based on a dye-binding solution used in clinical chemistry and can detect protein residues within 1 μg sensitivity.

**TECHNICAL SPECIFICATIONS**

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<th>Name:</th>
<th>ParaScope Protein Tests</th>
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<tr>
<td>Conformity:</td>
<td>BS EN ISO 15883, HTM 2030</td>
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<td>Results within 10 secs</td>
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<tr>
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<td>Refrigerated (4˚C)</td>
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<tr>
<td>Lot no:</td>
<td>yes</td>
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<td>Correct symbols:</td>
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<tr>
<td>Indicator:</td>
<td>Diagnostic dye-binding vial</td>
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<tr>
<td>Expiry date:</td>
<td>6 months non-refrigerated, 24 refrigerated</td>
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<tr>
<td>Packaging:</td>
<td>25 tests per box including swabs plus extra, longer swabs if required. Plus 2 control tests.</td>
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To determine if protein is present on a surface, swab the surface, place the swab in the colour changing solution and swirl the swab for 5 seconds. The swab can then be discarded. If protein is present, the reagent will turn blue within 10 seconds. The colour change provides a semi-quantitative measure of surface cleanliness; the higher the level of contamination of protein (from sources such as bioburden), the darker and faster the colour changes to blue.

<table>
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<th>Description</th>
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<td>PS1710</td>
<td>ParaScope Protein Test &amp; 25 x 1.7mm x 2.5m swabs</td>
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</table>
were organised in teams of approximately 10, colour coded - Red, Yellow, Green, Grey and Blue. We were responsible for the administration of their medications and in the same way as last year each nurse or doctor being responsible for one group.

As some of the kids had experienced this from last year the new kids just followed and in no time were all chatting about their medications. I think again this normalised the situation and for some helped them realise that they were not the only ones who take medications.

The “wellness centre” was once again in operation and we had usual cuts and bruises, some stomach cramps and one camper had a bout of vomiting overnight, but on the whole everyone kept fairly well. Other nursing skills required were ostomy cares for a camper fairly new to this, and PEG (mickey button) bolus feed and set up of overnight pump feeds. We had a couple of campers that were home sick, but after a phone call to their parents they settled.

It was decided to put mobile phones in a safe place whilst the kids got involved in activities. Personally I think this was a great idea and after a few changes of rules for the older campers it all worked out rather well.

The activities were slightly different from last year but enjoyed just as much. From rifle shooting, archery, climbing trees, to jet boating the kids took it all in their stride. All got the chance to see sheep being shorn and have a go at milking a cow. This I think was great for some of the city kids.

I want to salute the volunteers this year, a lot of whom have inflammatory bowel disease themselves. They all worked together as a team to ensure these kids were safe, supported and more importantly had a great time. Even though a couple of them were not so well themselves they still gave their all!! I am humbled and so impressed by each and every one of them and honoured to call them my friends! (Belinda moment happening!). All those at camp will know what this means.

Meeting some of the parents this year was great, hearing some of their stories was awe inspiring. The realisation the impact a child diagnosed with a chronic condition has on the whole extended family and the utter helplessness and frustrations involved. The readjustment of family values and in some cases the changing of lifestyles for the whole family is just mind blowing. The education seminar for the parents over the first two days of camp is very useful as in they learn a lot from the medical profession but also from each other. In some ways I think this is more important as they have ongoing support from other parents in a similar situation. Many of them now keep in touch with a new site that has been set up via Facebook – IBD NZ Parent Support.

So here we are looking at organising the next camp already, we have a meeting set up for the camp committee, and the troops are looking at camps in Wellington.

There has been lots of fund raising done since camp in the way of sausage sizzles, and the Auckland girls are participating in the Round the Bay fun run!! Good luck to them all!!

We are hoping that we can get more support from the business community this year so we can continue to get these kids to camp every year.

In today’s financial climate this will continue to be an uphill struggle. But we are strong and determined to do this for our IBD kids from all over New Zealand.

So please help us to help them by fundraising or giving a donation every little will help.

Givealittlepage: Camp Purple Live/Crohns and Colitis NZ

Here are a few letters below from some of the parents:

Hi Brian and Nicola

As a family we just wanted to express our heartfelt thanks to all of you involved with the camp. To have exposure to the great doctors, nurses, volunteers and of course the organisers and families - who all have so much information to share - is immense for us, invaluable actually. We think you guys are awesome and are doing amazing things for our children - and for
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parents like us that is everything. Judy and I loved the opportunity to lap up the knowledge offered freely by the doctors, nurses, families and sufferers themselves. I know that Caitlin will be having a great time, building lifelong friendships and coming to the realisation that there is life after her diagnosis. It is a gift to know that it will not hinder her life and most importantly that she is not alone in this predicament.

We will never be able to repay everyone involved in the camp for the amazing work done - but we are immensely grateful for all you have done for Caitlin and our family. Please pass on our thanks to the doctors, nurses, and especially the freely giving volunteers also; in the hasty departure on Monday we did not have the opportunity to thank them all.

Quick note to say Ash got home safely and thank you very very much for all your hard work. Ash thoroughly enjoyed herself and is still buzzing from it and looking forward to next year already (her new found friends are already planning next year’s meet).
She also is feeling a lot better about it all.

Hello Nicola
I just wanted to thank you ALL from the bottom of our heart for all the organising that went into Camp Purple. With all the apprehension Troy was feeling beforehand, he ended up having the best time and managed the whole 4 nights without us. He made some great friends (apparently he had an enemy too - have to laugh!) but all in all he had a fabulous time. His helper Libby was amazing and a great match - I can’t thank her enough either. As were the nurses. And Becs the detective was a special friend worth mentioning.

We are truly grateful for the experience of the camp and being with such special people and would love to be part of it again next year.

I’d really love to send the nurses and Libby a thank you of some sort and would appreciate if you could give me some kind of contact for them if that is possible.

And of course a massive thank you to yourself and your team (presuming you had helpers) for all your hard work - I cannot even imagine what a huge task it must have been, it seemed to all go smoothly (I’m presuming the other parents were better at the communication and form filling than I was!). But seriously - thanks a million trillion!!!! You’re awesome!!

Good evening,

I am sending this and would appreciate if you could pass this onto everyone involved at the camp.

I just want to say a huge THANK YOU to everyone involved with camp Purple.

Tayla was buzzing when we picked her up and talked for an hour about everything she did. How amazing everyone was, just the whole overall experience, everything including the food.

As a teenager she doesn’t have much of a social life as Crohns limits her. But she said “I didn’t realise there were other kids out there just like me. I didn’t realise how alone I was. It was great to be just feel normal for a week and talk to others who just get it.”

I am truly thankful for the fantastic people who worked so hard and gave up your time to provide this great experience and for the excellent care Tayla had... I know this will be forever an amazing memory for her and a great confidence boost as she heads into another year at school.

rest I know she has made some great friends and will keep in contact with them. So once again thank you from a very happy Mum.
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Camp Purple Live January 24th-28th 2016
continued

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Firstly I would like to acknowledge NZ Society of Gastroenterology Committee for your fine work and smooth running of our 2015 conference. Acknowledgment also made to our great team of NZNO Gastro Nurses for the convening of the committee meeting.

I am a first time submitter to the tube so bear with me if my passion for my article overtakes the required format for the tube magazine.

Conference Rotorua 2015, general topic was inequities within our ethnicities national and internationally when it comes to our health care however I would like to share my thoughts on a weight loss solution that was on display.


How it works: Reduces caloric absorption by removing 30% of each meal. The Aspire assist is a PEG tube designed to remove contents from the stomach 20 minutes after each meal. It has a safety lock that disables after 115 uses to ensure medical follow-up. It’s designed to promote slower eating by requiring thorough chewing and water consumption. Designed to reinforce healthy behaviours through lifestyle counselling and encourages the discussion of coping strategies. This solution has a track record of safety compared to bariatric procedures, it is reversible and doesn’t alter GI anatomy. Affordability is lower costs than bariatric surgery and low risk of costly repeat procedures and medical care. There is a strong patient interest level in a multinational market research with figures from Germany 75% in 100 obese patients showing interest as in France 72% in 100 and 72% in 203 USA (referenced from Aspire Bariatrics, Inc. 2015). For our NZ obese patients there has been approved funding for 10 people to partake in this smart, effective weight loss solution in a pilot programme run through Middlemore hospital.

When I heard about this smart, effective solution for weight loss I was somewhat of a cynic. I then thought come on use a positive growth mind set and think outside the box. We aren’t talking about people who need to shift 5 – 10kgs, we are talking about people who need to shift 70+ kg and have lost their self-belief in having the ability to accomplish this on their own.

During my time at conference I made a concerted effort to talk to the reps of this solution, because I really wanted to push my thinking about this programme to help formulate a much needed discussed topic. At the end of conference I knew I was faced with a 5 hour journey home in a minivan with colleagues, so I knew exactly where I was going to begin this discussion.

I take you back to 100 years ago we also had obesity but at a lower percent. Was this not because we still grew our own food and led a much more active life style. Has the shift of ownership of our health and general wellness gone from personal ownership to public ownership? Should we not be asking ourselves how and why we can be buying vine riped tomatoes from our local super market for $1.99. Is this solution of weight loss not medicalizing bulimia??

All of these topics were taken up during my 5 hour journey and as I sit here writing my article I am left thinking is this Aspire solution the normal or common when it comes to the future of managing obesity.

Lauren Faas
Gastro Nurse
Mid central Palmerston North

---

Aspire Assist stomach drain

Food eaten

An internal tube is placed in the stomach, and connected to an external valve through a skin incision.

Twenty minutes after a meal, the patient drains 30% of the stomach’s contents by connecting the external aspiration device to the valve.

Herald graphic

---
I feel very privileged to have recently attended the 9th Sydney International Endoscopy Symposium (SIES) in February 2016. It was an exhilarating conference and very inspiring to be a part of.

Many topics at the conference were fascinating, but what caught my attention the most was a poster at the Nurses’ workshops about ‘The Injection of Glue into Bleeding Varices’. This was of particular interest because I have not been present when glue has been used in our department, despite working there for eight years. Although I have nursed many patients with oesophageal varices, the first line of treatment for this is Banding Ligation, and I have never seen a patient present with gastric varices.

Varices are defined as blood vessels that are dilated. Although oesophageal varices are the most common type, varices can occur anywhere along the gastrointestinal tract, including the stomach, small bowel and colon. The reason oesophageal varices are the most common, is because the oesophageal pathway is closest to the portal vein (Dale pg.12, 2016).

Portal hypertension is described as abnormally high pressure in the portal venous system, which is composed of the portal vein and its tributaries from the stomach, intestine, spleen and pancreas. The elevated pressure causes changes in the gastrointestinal tract (usually in the oesophagus or liver) and the blood vessels adjoining this area. The resulting damage develops into varices over time.

The main cause of portal hypertension in patients is liver cirrhosis. In the cirrhotic population, gastric oesophageal varices are present in about 50% of patients, and occur in approximately 5-33% of patients with portal hypertension (Garcia-Tsao, Sanyal, Grace & Carey 2007 cited Dale 2016, pg.12). Gastric varices can be classified into 4 groups:

- Type One & Type Two Gastroesophageal Varices:
  These are extensions of oesophageal varices.

- Type One & Type Two Isolated Varices:
  These occur in the absence of oesophageal varices and can extend along the fundus, antrum, and body or around the pyloric area.

Gluing of Gastric Varices

The purpose of gluing gastric varices is to stop the bleeding and obliterate the varix. The products used are Histoacryl; which is a topical skin adhesive similar to super glue. This is mixed with a poppy seed oil known as Lipiodol, and the mixture is injected into the varices as described below.

Before gluing of gastric varices, it is important to record and monitor vital signs and obtain intravenous access.

Joanne Leitch, RN, Christchurch Hospital, CDHB
Ahlensteil (2016) also stated that airway protection, antibiotic therapy and a target hemoglobin of 80g/l was essential prior to this procedure. In addition, a drug known as ‘Octreotide’ is often prescribed to patients prior, to reduce venous pressure.

Dale (Pg.13, 2016) stated that “bleeding from gastric varices is rarer than those in the oesophagus, however when it occurs, it is usually severe and more difficult to manage”. Therefore, it is important as an endoscopy nurse, that the necessary equipment is prepared with the intent to glue the varices. Opposite is an overview of the procedure and equipment list taken from a poster presented by the Westmead Hospital Endoscopy Nurses:

Two complications related to variceal gluing are fever and systemic embolization. Glue emboli can occur anywhere in the body, but most often in the portal vein and spleen. It is important that the patient is aware of the need to watch out for pain, bleeding, infection and embolism (such as unexplained symptoms) upon discharge. Stress to the patient that they should return to hospital immediately if they have any concerns. It is also recommended that the patient has a repeat endoscopy 3-4 days post injection (Mahmoudi & Whittaker, 2006). This enables the Endoscopist to assess if complete obliteration of the gastric varix was undertaken.

Balloon Tamponades

In addition to gluing varices there are other tools that can be used to control bleeding from varices. Two balloon tamponade products are available to alleviate and stop bleeding:

1. Sengstaken-Blakemore tube
2. Linton-Nachlas tube.

The Sengstaken-Blakemore tube is often the first choice to treat oesophageal varices. It has both an oesophageal and gastric balloon. It is inserted through the mouth and placed in the oesophagus. The gastric balloon is visualized endoscopically and is inflated with approximately 250mL of air using a 50mL luer slip syringe and traction is applied. The oesophageal balloon remains deflated to prevent necrosis of the oesophagus, unless additional pressure is required to control bleeding (CDHB Sengstaken Blakemore Protocol 2015).

The Linton-Nachlas tube is often used to treat gastric varices. This tube has a single, large pear shaped balloon that is inflated 300-500mL air using a 50mL luer slip tip syringe with traction applied. Thankfully the progression of endoscopy has reduced the need to use balloon tamponade, but the use of such devices can still be temporizing or lifesaving, despite their potential for serious complications (Tregar 2015).

In Conclusion, I have gained a greater understanding of the treatment of varices by attending the conference. It has been excellent to extend my knowledge of both oesophageal and gastric varices and the therapeutic options for my patients. I now feel more confident about caring for a patient that has had gluing of their varices and have been able to share this knowledge with my colleagues. It has also made me more aware of the challenges gastric varices present to Endoscopists and Nursing team.

As gastric varices are uncommon and gluing of them an infrequent occurrence, it is important that a clear procedural document is available to guide nurses through this process.

References:

### Injection of Glue into bleeding varices

**DESCRIPTION**
Under direct vision with an endoscope, bleeding varices are injected with Cyano Acrylate Glue (Histoacryl).

**INDICATIONS**
Hemorrhaging gastric varices

**EQUIPMENT**
1. Standard equipment for endoscopy
2. 21g Disposable varices injector (Olympus) NM-200I-0821
3. 6 x 2ml syringes (Luer Lock)
4. 6 x 10ml syringes (Luer Lock)
5. Lipiodol x 2 amps (10mls)
6. Histoacryl x 2 amps (0.5mls)
7. Sterile Water for injection x 4 (10mls)
8. Pre-loaded multiband Ligator (if oesophageal varices also present)
9. Face shields and Goggles
10. Scissors or stitch cutter (to cut glue container ampule)

**TECHNIQUE**
1. Normal patient assessment, including IV antibiotics and airway management
2. Draw up Lipiodol 3 x 2mls.
3. Draw up Lipiodol 2 x 0.5ml in separate 2ml syringes, add Histoacryl 1 amp (0.5mls) to each of these syringes (glue mix)
4. Prime injector with lipiodol, measure the dead space (usually 1.2mls)
5. Then prime injector with Histoacryl/lipiodol to within 10cm of the end of the injector (glue to purple) Olympus needle will only allow 0.5ml
6. Pass injector down biopsy channel and then extend needle
7. Inject remainder of Histoacryl/lipiodol (glue mix) into varix then using 2ml syringe of lipiodol inject 1.5ml to chase in residual glue from injector dead space

- The patient is given oxygen, vital sign monitoring and appropriate sedation so the procedure can begin.
- The endoscopy nurse prepares the Lipiodol and Histoacryl once assessment of the varices is undertaken to determine the need for gluing.
- The injection needle is primed with Lipiodol.
- In a syringe a mixture is prepared of Lipiodol and Hystoacryl ready for use.
- Positioning of the endoscope is performed for the location of the injection.
- The needle is inserted into the varix and the mixture of glue and Lipiodol is given.
- A quick flush of Lipiodol only is given afterwards.
In February, 2016 I was fortunate to be able to attend the 9th Sydney International Endoscopy Symposium (SIES). This year was the first time I had attended this conference and I can’t say enough about how stimulating and interesting I found it.

To see world experts in the field of therapeutic endoscopy apply their skills and knowledge in a practical environment was both exciting and thrilling at the same time. There was more than one occasion when I was glad to be watching from the comfort of the Hilton Hotel conference room rather than assisting in the endoscopy rooms at Westmead hospital where the live video endoscopies were performed!

The presentation and live video endoscopy on Barrett’s oesophagus (BO) by Professor Oliver Pech was one I found especially interesting. Professor Pech is the head of Gastroenterology and Interventional Endoscopy at St John of God Hospital in Regensburg, Germany and is one of the world’s leading experts in endoscopic diagnosis and treatment of early Barrett’s neoplasia.

He presented a case study on a 69 year old female with a history of long segment of Barrett’s mucosa.

- She had a past history of EMR (Endoscopic Mucosal Resection) in the distal oesophagus for High Grade Dysplasia (HGD) and intra mucosal cancer.
- In October 2015 she had HALO 360, Radio Frequency Ablation (RFA) to the proximal segment only.
- A repeat endoscopy in January 2016 showed an altered pit pattern at the distal aspect of the oesophagus and biopsies at 32cm revealed HGD.
- She was referred to endoscopy at Westmead for further EMR of the lesion at 32cm.

On endoscopy it showed a slightly stenosed lower oesophagus from previous treatments and irregularity and nodularity at 32cm. Ulceration was also seen higher in the oesophagus, indicating the patient would require high dose Proton Pump Inhibitors (PPI) following resection to help with healing post procedure.

A spray catheter was introduced into the oesophagus via the gastroscope and acetic acid 2% was sprayed over the lining of the oesophagus. The oesophagus, Barrett’s and gastric mucosa took on a white appearance. This is known as the ‘aceto-white’ reaction. After flushing with water the Barrett’s and gastric mucosa appeared reddish. This enabled the irregular pit pattern to be seen more easily and is a method that has been described as safe, rapid and inexpensive.

The lesion was then outlined with the tip of a diathermy snare providing a guide for the Endoscopist, of where the EMR was to occur, with the aim to ligate, resect, ligate, resect.

Using a ‘Duette’ multiband ligator and a 5 French hexagonal snare and starting proximal to the lesion a pseudo polyp was created. Diathermy was then applied to the mucosa under the band using endocut and the tissue was retrieved. The lesion was removed piece-meal in two mucosal resections. The second resection was completed by using the first resection margin as a guide. Once retrieved, the specimen was pinned on to cork, as this makes it easier for the pathologist to view. Professor Raj Singh also offered a helpful tip that application of ‘Hyoscine-N-Butylbromide’ (Buscopan) to the resected lesion on the cork helps to relax the muscle and flatten it. Brilliant.

**Endoscopic treatment of early Barrett’s (dysplasia and early adenocarcinoma) and treatment recommendations:**

There have been major changes in the endoscopic management and treatment of Barrett’s oesophagus over the last decade. New data, studies and increased endoscopic imaging, including high definition Narrow Band Imaging (NBI) and high resolution white light imaging inspection. These imaging techniques remain the gold standard in the detection of Barrett’s mucosal changes in the oesophagus. Endoscopic techniques have also altered treatment pathways for the eradication of Barrett’s mucosa. Where previously surgical procedures such as oesophagectomy occurred for the treatment of HGD, these patients may now successfully be treated using therapeutic endoscopy.

Endoscopic treatment of early Barrett’s can be used for both Low Grade dysplasia (LGD) and HGD. Histological grading for Barrett’s includes negative for dysplasia, indefinite for dysplasia, LGD and HGD. LGD is often difficult to diagnose as it may be hardly visible to the Endoscopist and is subject to variable interpretation from the pathologist. In a study from Amsterdam more than 73% of LGD were down staged to non-dysplastic Barrett’s epithelium after a review of the histology slides. As a result, recommendations are that a second opinion is requested from a pathologist.

The Surveillance vs Radiofrequency Ablation (SURF) study has also shown that the transition from LGD to HGD is higher than previously thought and recommendations are that patients with definite, multifocal or LGD shown on more than one endoscopy should be treated the HALO RFA rather than undergo six monthly endoscopic surveillance.
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Barrett’s Oesophagus continued

So why do EMR for HGD?

The main aim of the treatment of HGD is to remove all dysplastic tissue and eradicate any remaining Barrett’s mucosa whilst minimising the risk of complications. EMR is the most accurate procedure for staging early oesophageal adenocarcinoma. It is recommended as a two-step concept with step 1 being endoscopic resection, and step 2 the ablation of any remaining Barrett’s with Argon Plasma Coagulation (APC). Radical Circumferential Barrett’s resection has also been proven to be effective with good complete remission rates of dysplasia but does have the complication of a high stricture rate.

Studies have also shown that ESD in early Barrett’s compared to EMR does not have a great impact. There is a high rate of complication and a 60% risk of stricture formation. So while ESD is suitable for bulky nodular lesions, neoplastic lesions in long segment Barrett’s are mostly multifocal and an exact delineation is often not possible. As a result, all factors need to be taken into account in considering whether endoscopic resection and treatment, or surgical treatment and the associated risk factors, are appropriate in the treatment of HGD for the patient.

I wish to thank the NZNO Gastroenterology Nurses Section, and the CDHB for enabling me to attend this conference. I thoroughly recommend it to any nurse considering attending next year’s 10th symposium anniversary. Sydney turned on some fantastic weather and the close proximity to the shopping made for a memorable time away.

References

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The Use Of Throat Spray By Registered Nurses In Medical Day Stay Unit (MDSU) At Tauranga Hospital

Some years ago it was common practice for the nurses in the Tauranga MDSU to administer lignocaine throat spray prior to patients undergoing upper endoscopy procedures. However, a serious laryngospasm incident occurred after a nurse sprayed a patient’s throat with lignocaine spray prior to a gastroscopy. That one incident changed nursing practice and application of lignocaine throat spray has been limited to doctors only for many years. As part of the National Endoscopy Improvement Programme (NEQUIP), there is the need/expectation to improve nursing practice within the endoscopy room. However, there is also the fear of a repeat incident hence the need for discussion and guidelines.

Laryngospasm can initially be treated with oxygen and re-assurance but if left untreated can be fatal (2). There is no overwhelming evidence of laryngospasm occurring regularly in endoscopy procedures as during my research it appears to be more common in paediatrics and post- general anaesthetics.

Why do we use throat spray at all? The throat spray is a topical anaesthetic which reduces sensation when applied to the back of the throat therefore reducing the gag reflex, which is an involuntary reaction, as the endoscope is introduced through the back of the mouth. Gagging is regarded as a negative feeling (3) and is identified as a feeling of nausea, intense spasms of the muscles of the oropharynx and also a concurrent contraction of the muscles of the abdomen (4). Without the gag reflex occurring the patient therefore feels more comfortable, relaxed and the process of the
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gastroscopy/upper endoscopy is a more pleasant experience (5).

In order to prevent any adverse respiratory events the throat spray is administered whilst the patient is in an upright position. The patient is then repositioned in a left lateral position and prepared for the procedure. These are precious seconds for the nurse to set the scene for the patient and establish a rapport in order to achieve the best outcome for the patient which would be a comfortable and relaxed and professional procedure (6). Time delays when the doctor is able to administer the spray can impede on the efficiency of patient flow throughout the endoscopy procedure room. In a public hospital brief time periods between procedures often require the doctor to write notes, dictate a report and then talk to a waiting house officer or return a GP call. This is normal for a public hospital endoscopist to fit these other vital jobs between procedures and the nurses use this time to change from one procedure to the next so it is easier if the nurse can apply throat spray when it is most appropriate to do so (6).

Topical pharyngeal anaesthetics have been widely used in endoscopy for many years as a numbing agent to anaesthetise the back of the throat with or without the addition of intravenous sedation. It can reduce patient discomfort and improves the patient tolerance as the gastroscope is introduced. The majority of patients would state the introduction of the scope into the oesophagus was the most unpleasant part of the procedure (6) hence one of the reasons for numbing that area.

As part of researching this topic I needed to know if endoscopy nurses across New Zealand were administering throat spray and our unit was the only one that was not. I therefore emailed as many endoscopy units as I could to find out this information. I used the email addresses in “The Tube” magazine and I thank everyone for their time in replying. I sent out 34 emails and received 19 replies.

The majority of units had nurses applying the throat spray, usually 2-5 sprays to the back of the throat and then ask patient to gargle. No unit had a set protocol and the doctor may spray the throat if it was more convenient. Some units used up to 10 sprays and some waited to see if the patients’ throat was numb and applied more spray if it was not. Some units had a particular doctor who preferred to spray the throat themselves and some units had doctors who did not use throat spray at all if using intravenous sedation as not wishing to add to the risk of aspiration. There were also 4 other units where the doctors always applied the throat spray. Although not specified in all the replies, it is believed that all units were using the Xylocaine 10% Pump Spray.

So if our nurses are going to apply the throat spray, how are we going to achieve this? The spray should be aimed at the hard palate, tonsils and back of the tongue without pushing the throat spray nozzle too far into the tonsil area that might cause gagging. The aim is to numb the back of the throat or pharynx so that the patient does not feel the endoscope passing through and therefore avoid any gagging or distress. This makes the process easier for the doctor as the anatomy stays still and therefore can be visualised better and quicker. It is easier for the nurse as the patient is calmer and possibly requiring minimal active airway management i.e. less suctioning of saliva and less additional intravenous sedation, if any, being used.

Diagram 1. Anatomy of mouth and throat.

The topical pharyngeal anaesthetic spray used in our unit is Xylocaine® 10% Pump Spray, this consists of 10 mg of lidocaine per puff with banana essence, ethanol, macrogol, menthol, and saccharin(7). Xylocaine is the trade name for lidocaine/lignocaine.

One metered spray dose of lignocaine spray = 10mg lignocaine. The New Zealand Data Sheet for Xylocaine Pump Spray 10% (7) recommends up to 200mg Lignocaine (that is 20 sprays) as the maximum dose for procedures in the pharynx and larynx. The area should remain anesthetised for 10-15 minutes and this should occur within 1-3 minutes of application. Diagram 1 identifies the area the gastroscope is passing through on the way to the oesophagus. It is this surface area of the pharynx/larynx that we are aiming to numb. It is important to remember that if there are any mucosal injuries to the back of the throat area lignocaine spray could be absorbed systemically which would heighten any adverse reactions and any debilitated/underweight patients may require care as to how much spray is used.
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The Use Of Throat Spray By Registered Nurses In Medical Day Stay Unit (MDSU) At Tauranga Hospital

As noted from the response to my research no endoscopy unit that I have had contact with is using more than 10 metered sprays then it is my understanding that most units in this country are practising within the manufacturers guidelines. If endoscopy units were not using the metered sprays that come with Xylocaine 10% Pump Spray then overdose could possibly occur and cause adverse reaction (7). This is only recorded as happening in overseas units where patients were just gargling an unspecified amount of lignocaine liquid from a glass not a metered spray (8).

It is important to remember that Xylocaine 10% throat spray is bitter to taste and can be irritating (5). Personal experience has shown that some patients take a little time to accustom to the numb throat feeling and if they are very anxious can find it upsetting. This normally just requires some nursing time, re-assurance and explanation of what is happening and occasionally some initial intravenous sedation to assist the patient to relax. I recently nursed an 18 year old girl prior to an Endoscopic Rectrograde Cholangiopancreatogram who was so scared and unwell that the throat spray felt unbearable and promptly burst into tears as the spray felt so harsh in her throat after days of not eating and drinking and just sobbed for 10 minutes. After much reassurance, encouragement and comforting the procedure was able to commence with a successful outcome.

It can be relevant to check that the throat spray has actually worked. This may take up to 5 minutes and then the gag reflex will need to be checked and reapply more throat spray if it has not been effective (9). This may be more relevant if no intravenous sedation is being used. In my experience most patients are asked if their throat ‘feels numb’ and if the answer is yes then the throat is considered to be anaesthetised.

I believe that in consultation with our doctors and with new guidelines for application of Xylocaine 10% spray, the MDSU nurses can safely and efficiently apply the throat spray. Some of the issues to be discussed will be: Prescribing of the Xylocaine 10% Pump Spray. Should the doctor be physically in the room with the patient when throat spray is applied? Should we verbally check each time with the doctor that they are ready for us to apply spray? And how many sprays should we apply?

Currently standing orders exist for some MDSU service specific medications and I believe the throat spray will fit well into that area. I feel, after discussion, that the MDSU nurses will have a verbal system in place where they verify the doctor is in the endoscopy room and ready for the throat spray to be given. It is great to be constantly improving our practice and ensuring that the endoscopy journey for our patients is the best that it can be.

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All contributions to The Tube should meet the following guidelines:

• All publications should have a consistent, readable style.
• Write in complete sentences and use short words and short sentences.
• All words should be spelt correctly — check in the dictionary if unsure.
• Justify your entire work and use Calibri font, size 10.
• Use single spacing and apply paragraphs appropriately.
• Put the most important thing you want to say at the start, where it draws people’s attention.
• Say what you mean and say it as clearly and simply as possible.
• Ensure the basic questions — who, what, where, when, why, how — are answered. This is particularly pertinent to conference reports.
• Don’t pad it out with unnecessary details, description and nursing and bureaucratic jargon.
• Provide relevant references to support your article.
• Use the active not the passive voice. For Example:
  Passive voice: There is unhappiness among nurses about the level of remuneration in the package.
  Active voice: Nurses (subject) are (verb) unhappy with the wage offer (object).
• Do not use capitals except for proper nouns — nurses and nursing are not proper nouns; the name of your hospital is a proper noun.
• Only use abbreviations once you have explained the term in full, e.g. an Endoscopic Retrograde Cholangiopancreatography (ERCP).
• When using a person’s name, include their clinical role, e.g. Waikato Hospital gastroenterology clinical charge nurse, Barbara Woodrow.

Apply the five simple rules of good writing:

Accuracy: means words, names, titles etc are spelt correctly and what is written is true.
Brevity: means short words and short sentences.
Clarity: means writing simply and clearly.
Simplicity: means cutting the clutter.
Humanity: means writing in a way that indicates a person, not a jargon-crazed automaton, is involved.

“It all contributions should be proofed by a senior colleague in the first instance and The Tube editor may seek verification from that colleague that the writing is valid. Please supply their contact details with submission”.

• Please submit contributions, including high resolution, good quality photographs, to compliment writing by email, to editorofthetube@xtra.co.nz
• It may be helpful to keep the original copy of your report/contribution and compare it to the edited version to pick up mistakes and ways of expressing ideas more clearly.

Section committee members’ reports:

The aim of such reports is to inform the national section membership of the business and activities of the section during the last quarter.

These reports should include such activities as:

• section meetings/teleconferences (date and venue)
• decisions arising from these meetings/teleconferences (can be focused on the minutes of these meetings)
• plans/development the section is involved in/hopes to develop
• any external meetings committee members have attended relating to the business of the section, e.g. meetings with NZNO professional nursing adviser/professional services manager
• any contributions to national NZNO business, e.g. contribution to any submissions/national guideline development

These should be a maximum of 600 words and contain people’s correct names and titles.

Case study/clinical practice article:

• Outline the nature of the treatment/procedure/product that forms the basis of the case study
• Provide information on the patient: age, sex, history, any other pertinent clinical/social/cultural aspects. Avoid using information, which would clearly identify the patient.
• Tell readers what is new, interesting, different, pioneering, about this particular treatment/procedure/product
• Outline the actual treatment/procedure or how product works
• Report on the patient’s/client’s response/recovery/
• Tell readers what you have learnt through your involvement with this particular treatment/procedure/product
• Outline any implications/meaning it may have for gastroenterology nurses’ practice
• Provide references to support the article.

Submission Dates

30 December—February Issue
30 March—May Issue
30 June—August Issue
30 September—November Issue
# Gastroenterology Units in New Zealand

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<td>Gillian Clarke</td>
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<td>Belinda Prater</td>
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