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Association for Peri-operative Practitioners in South Africa

Vol 9 Issue 3 August 2023

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- APPSA is a non-profit organisation which exists for the benefit of its members. This is accomplished by way of congresses, local meetings and travel grants, with the express goal of raising the standard of peri-operative practice in South Africa

- Revenue is raised from, among other sources, the sale of advertising in the APPSA Journal

- Publishing dates for 2022: February, May, August and November.

- All editorial material for the APPSA Journal must reach The Editor at least six weeks prior to the month of publication. Send material to:
  Email: carma@gonet.co.za
  The Editor - APPSA Journal
  Tel: 072 825 3124

  Advertising Enquiries:
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PUBLISHED BY:
APPSA

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From The PRESIDENT

APPSA CONGRESS 2023: WHAT A WONDERFUL EXPERIENCE!

The thrill of being together for the first time, post-COVID. We had such a wonderful Congress, a sentiment shared by everyone I spoke to, was made even more special by the fact that we opened our Congress on International Nurses' Day (12 May) with the recitation of our *Nurse's Pledge.* What an emotional experience ... and one that meant so much to all of us. Soon, the day will come (for all of us) when we no longer have the privileged to chant that Oath. Until then, it must be a mantra we say every day - and mean it.

New Beginnings was the theme of our 2023 Congress, an experience we have all had to undergo at one time or another in our lives. No APPSA Congress could become a reality without the invaluable support of our colleagues in industry, our speakers, our dedicated APPSA colleagues and Congress Organisers. To each and every one of you - I would like to say my own personal *Thank You.*

Dr Neliouse Geyer thank you for the very enlightening talk on the future of our Continued Professional Development - and the new era of CPD accreditation that is being introduced. It is a welcome addition to the professionalisation of our industry, irrespective of which specialty we are in. Medhold's presentations - as always - were invaluable to our understanding of the OHSC and OSH legal compliance; Xana Jardine, we appreciate the input on safety and endoscopic procedures for both patient and staff. You can read all of these lectures in this issue of the *APPSA Journal* - thank you to our Editor, Madeleine Hicklin, for sourcing the copy and sharing it with us. Your efforts, too, are appreciated. Special thank you for the MDs, Consultants and other medical professionals who gave of their time to educate us during our APPSA Congress. We all need to embrace the new technologies and WHO guidelines, and demonstrate that daily in our actions and our deeds.

Getting to the social highlight of any APPSA Congress, our Gala Dinner! What a spectacular evening it was: from the décor, to the food and the music ... the evening was a roaring success. Many accolades need to be directed to the OR Tambo Hotel Management and Staff for the excellent way in which they executed their tasks. The time has now come to focus on our 2024 APPSA Congress: let's aim to have it in Spring, when the flowers are beginning to bloom and let it herald new life for us all. For now, though, we have just had SNOW in Gauteng - for the first time in many years. So, please be warm, be safe, and take care.

On a more sombre note, can we hold Villi Pieterse in our prayers as she navigates her way following the tragic passing of her son and daughter. Please join us in wishing her strength for the path going forward. To the rest of you, look after yourself until we meet again.

Marilyn de Meyer
APPSA President

APPSA

From The EDITOR'S DESK

After a remarkably successful APPSA Congress in Johannesburg in May, it is both shocking and awe-inspiring to look around and see how enthusiastic our peri-operative practitioners are in the face of such dire problems in our healthcare environment. On a daily basis, we are shown examples of just how broken this South African healthcare system actually is.

On 07 July, we were alerted to the fact that 706 nurses in Limpopo had their contracts terminated by the Limpopo Department of Health - despite the fact that the very same department's spokesperson, Neil Shikwambana, indicated that the province currently had 1 200 vacant posts! In March 2022, this same department indicated a vacancy rate of nearly 41% for professional nurses while the Minister of Health, Dr Joe Phaahla, recently indicated that 340 posts for 'speciality nurses' were vacant in Limpopo. How can one justify this kind of blatant disregard - not only for the nurses whose posts have been terminated - but for the patients whose care is now going to be severely hampered due to a chronic lack of nursing staff? At the same time, we learned that Germany has made space for 20 000 nurses from South Africa to swell their ranks of nursing capacity. And the South African Government has done absolutely nothing to address the growing nursing crises we have been facing for decades.

These nursing shortages - across all disciplines - have been exacerbated by COVID and the chronic incapacity of Provincial Health Departments to effectively manage their staffing requirements, maintenance issues and payment of suppliers for both equipment and surgical supplies. In addition, the changes to our education qualification requirements for nurses entering the nursing profession has greatly hampered our ability to bring young staff into the fold. Our nurses are overworked and expected to give quality healthcare in the what many of us can attest to, are the direst of circumstances. They are forced to work in unsafe facilities where basic sanitation and access to medication and necessary supplies are not a given. They will surely not have to face these horrendous conditions in Germany. And they should not have to face it here, in South Africa.

But the question on many people's minds is, if this is how the healthcare service is at present, what are the challenges going to be like if the National Health Insurance (NHI) is forced on the South African healthcare sector? That access to quality healthcare **MUST** be available to everyone in the country is not a question, the implementation of NHI into an already broken system that is dysfunctional - at best - is the worry. We do not have the capacity in our current State Hospital structure to suddenly absorb all the patients who are now making use of private medical facilities and private medical aids. This **HAS** to be a factor when evaluating the reality of the NHI and our current capacity constraints. Often tough questions need to be asked - and challenging conversations need to be entered into - for the good of ourselves, our colleagues, and our patients.

Madeleine Hicklin

ELISE MICHAU LECTURE: Tracing Our Roots To Leave A Lasting Legacy

By Marilyn de Meyer

INTRODUCTION

Elise Michau, the doyenne of South African Operating Theatre Nursing, established SATS - the South African Theatre Nurse Organisation - in 1980. This followed her representation of South Africa at the First World Conference of Operating Room Nurses in Manila, The Philipines, in 1978 where she presented a paper entitled *Functions of Operating Theatre Personnel.* It was at this conference that she met Jean Davis, President of the American Operating Room Nurses Organisation (AORN) who later became instrumental in the formation of SATS in South Africa.

Miss Elise, as she was known, was born in Cradock in the Eastern Cape and trained at the Pretoria General Hospital (HF Verwoerd Hospital). She completed her midwifery studies at Grey's Hospital before moving to Cape Town where she completed her diploma in operating theatre nursing at Groote Schuur Hospital, and further post-basic studies at the Pretoria College of Nursing and finally at Stellenbosch University. She joined CPA Hospital as a Nursing Inspector and the first National SATS Meeting was held at the Holiday Inn at the Old Jan Smuts Airport in 1981, with the first SATS Congress taking place in May of that year in Johannesburg.

Elise had been a founder member of the Cape Operating Theatre Discussion Group - and it was this group that was the driving force behind the establishment of a national footprint that grew into becoming SATS. She served as the SATS organisation's National Chairperson until her retirement in 1987, and as Honorary Life President until her passing on 30 July 2001 at the age of 70. The first issue of this illustrious Journal was published under her stewardship in 1976.

Elise was instrumental in the writing of the SATS Constitution as well as the establishment and opening of a national SATS Head Office in Cape Town. When she retired from her position at CPA Hospital, she joined the MediClinic Group as a tutuor and implemented the Diploma in Operating Theatre Nursing Science. In 1988, the first six students enrolled in the course and in 1992, the Elise Michau Trophy was awarded to Panorama MediClinic for the students obtaining the highest marks in the South African Nursing Council Examinations. By the time she had retired from MediClinic, 30 students had completed the course.

Elise was committed to, and passionate about, her profession, and this was evidenced in everything she undertook. She managed to build up a phenomenal library at Panorama MediClinic and the library was named The Elise Michau Library. Among her many awards were the Honorary Life Membership Award from the Critical Care Association of the USA; an award for excellence from The Infection Control Society of the Western Cape; and she was the recipient of the very first Davis & Geck Gold Medal for excellence, presented in appreciation and recognition of her outstanding contribution to peri-operative practice in South Africa.

APPSA

Elise Michau left a rich heritage to South African peri-operative practitioners. It is up to each and every one of us to build on the strong foundations laid by pioneers such as Elise to ensure that her legacy lives on through APPSA. It is will great pride and honour that the National Executive Board of APPSA pays tribute to this Doyenne of Operating Theatre Nursing by dedicating this lecture to her memory. We believe that this will ensure and remind us of her loyalty, commitment and energy to a job well done. Elise, we salute you and guarantee you that your legacy will live on forever. Which leads me to ask all of you: What will YOUR legacy be?

Let's start with a definition of legacy. Your legacy is the sum total of your life experiences, beliefs, values and traditions passed down from generation to generation. It's what future generations will remember you by - so one would hope you will make it something worth remembering. Benjamin Franklin once said: "If you would not want to be forgotten as soon as you are dead, either write something worth reading, or do something worth writing about."

Leaving a legacy through your work means doing something worth writing about - and changing the world. When you think about your career in terms of leaving a legacy and not merely as a source of income, it takes on a far deeper meaning. When you're pouring your time, energy and passion into a business, you want to have a lasting impact. This must clearly be something to think about. Shannon Alder put it this way: "Carve your name on hearts, not on tombstones. A legacy is etched into the minds of others and the stories they share about you."

So let's ask this question again: What will YOU be known for when you leave this earth?

The most influential people, the ones who leave behind incredible legacies, will live on in the hearts of the people they touch. Physically, they will no longer be part of society - but their principles, philosophies and achievements will become immortal, spreading from generation to generation.

Jim Rohn said: "All good men and women must take responsibility to create legacies, that will take the next generation to a level we can only imagine."

Every great man or woman has - at some point - pondered on the idea of what kind of a legacy they will leave behind. Will it be a good impression or a bad one, and how will they be remembered. I would like to leave you with a story that really touched my heart. I hope it touches yours.

One night I dreamed a dream.
As I was walking along the beach with my Lord.
Across the dark sky flashed scenes from my life.
For each scene, I noticed two sets of footprints in the sand,
One belonging to me and one to my Lord.
After the last scene of my life flashed before me,
I looked back at the footprints in the sand.
I noticed that at many times along the path of my life,
especially at the very lowest and saddest times,
there was only one set of footprints.

This really troubled me, so, I asked the Lord about it.
"Lord, you said once I decided to follow you,
You'd walk with me all the way.
But I noticed that during the saddest and most troublesome times of my life,
there was only one set of footprints.
I don't understand why, when I needed You the most, You left me."

He whispered, "My precious child,
I love you and will never leave you.
Never, ever, ever during your trials and tests did I leave you.
When you saw only one set of footprints,
It was then, that I carried you."

Marilyn de Meyer is the National President of the Association of Peri-Operative Practitioners of South Africa (APPSA); President of the APPSA Gauteng Chapter; and Theatre Manager at Life, The Glynwood Hospital. She presented this paper at the recent APPSA Congress in Johannesburg. This paper appears here, courtesy of her.

Opening Ceremony 'Lightining of the Lamp'

Opening of Congress

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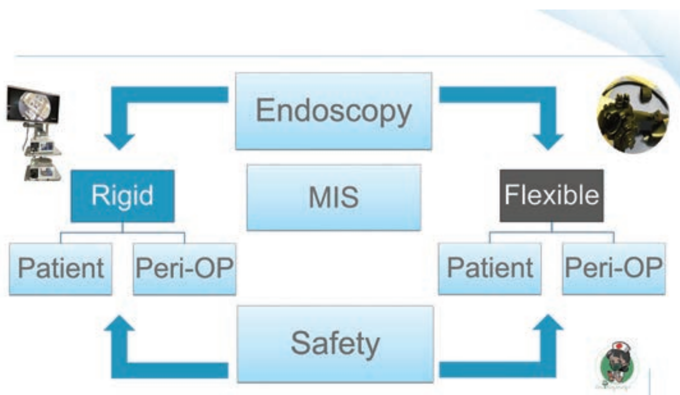
Gala Evening

SAFETY FOR THE PERI-OPERATIVE PRACTITIONER AND THE PATIENT:
Rigid And Flexible Endoscopic Procedures

By Xana Jardine

INTRODUCTION

In the that past 20 to 30 years, minimally invasive surgery (MIS) has become common place in all surgical specialities. The needs of the peri-operative team and the patient differ in MIS surgery versus open surgery. The equipment and the instrumentation needed is extensive and this continues to evolve as new techniques are developed. Peri-operative practitioners are challenged to stay current with all available technology so that they can provide safe patient care.

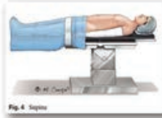


We know that laparoscopic surgery is associated with less pain, reduced hospital stays, fewer wound infections, and an early return to work. But, like all surgery, it does have its risks and we must consider the patients safety during MIS surgical approach. Patient safety factors to consider during MIS surgery include correct positioning, safe creation of the pneumo-peritoneum, and safe use of electro-cautery.

CORRECT PATIENT POSITIONING

It is important to position patients correctly for MIS surgery as optimal patient positioning prevents inadvertent patient movement, protects the patient from injuries and ensures unhindered access to the port insertion area. Prolonged operative time and manoeuvring may generate compression, ischaemia, shear, or stretch events that can cause positioning injuries. These include skin and tissue breakdown, transient neuropathies and compartment syndrome. Did you know that between 2% to 5% of patients who undergo MIS surgery experience post-operative neuropathies?

Patient Positioning for MIS



Optimal patient positioning **prevents** inadvertent **patient movement, protects** the patient from injuries, ensures unhindered **access** to the **port** insertion area

The **positioning** augmented by intervals of unnatural positions (head down or up, or lateral tilt) **allows gravity to retract the viscera** away from the workspace.

The **prolonged operative time** and manoeuvring **may generate** compression, ischemia, shear, or stretch events that can cause positioning injuries like skin and tissue breakdown, transient neuropathies, compartment syndrome.

Lomanto, D. et al. 2023 . Mastering Laparoscopic and Thoracoscopic Surgery ELSA **Manual**. MIS Education Asia eBook.

SAFE CREATION OF PNEUMO-PERITONEUM

When doing laparoscopic surgery, the surgeon will, of course, need to inflate the abdomen, which is normally done using a Verres needle and an insufflator. Tubing will be connected between the Verres needle and the insufflator. The peri-operative practitioner and the circulating nurse can work together to flush air from the tubing as this may decrease the risk of the patient sustaining an air embolism. It is important to follow the insufflator manufacturers' instruction for use (MIFU) including the aspects like flow rate, use of a filter, and tubing diameter recommendations.

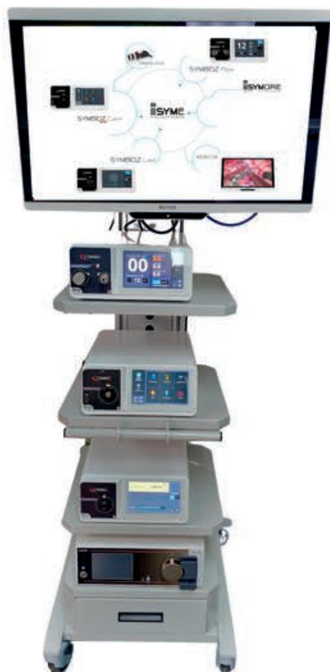
Pneumoperitoneum: AORN: Risks

- **Follow** the insufflator MIFU including the **flow rate**, trocar, **filter**, and **tubing** diameter **recommendations**
- The scrub person and RN circulator should work together to **flush air from the insufflator and tubing before** the tubing is **connected to** the cannula (eg, **Verres needle**). This action will **decrease the risk of an air embolism.**
- RNs should verify that the **gas cylinder is available** and that there is **enough gas** in the cylinder to perform the designated procedure (should also verify that a **replacement cylinder** is immediately available).

Spruce, L. 2019. Back to Basics: Minimally Invasive Surgery. AORN. Vol 108. No. 3

It is always important to check the volume of CO_2 prior to starting a case, ensuring that there is a replacement CO_2 cylinder on hand. A useful feature of an insufflator would be if the insufflator displays the amount of remaining CO_2 in minutes. This could make it easy for the team to decide if there will be sufficient CO_2 for upcoming surgical procedure, or if the cylinder needs to be replaced before you even commence with the procedure. It is important to be aware of changes in pressure during the procedure. Therefore the team should ensure the insufflator alarms are turned on, and are loud enough to be heard over the other noises. If a patient develops an air embolism the treatment steps can include stopping the CO_2, ventilating the patient with 100% oxygen, and infusing copious amounts of intravenous fluids to push the blocked airlock into the lungs where it can be absorbed.

SafMed Symbioz Full HD Endoscopy System



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Pneumoperitoneum: AORN Risks

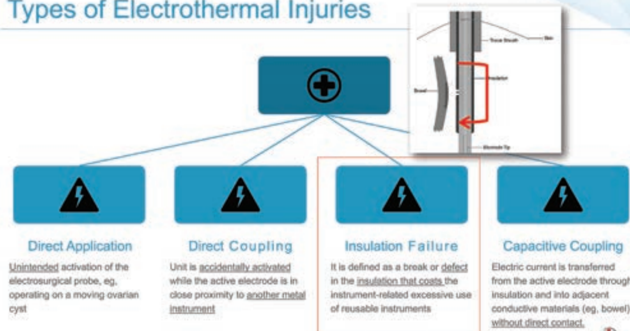
Goal **maintain the insufflation** pressure at the **lowest level** necessary.
Always ensure the audible alarm on the insufflator **is on and is loud** enough to be heard above other noises.

Possible **treatment** is patient develops **a gas embolism**:

- Stop the CO2
- Ventilation of the patient with 100% oxygen
- Changing the patient's position from supine to either Trendelenburg or left lateral
- Infusing copious amounts of IV fluids to push the blocked airlock into the lungs where it can be absorbed
- CPR

Spruce, L. 2019. Back to Basics: Minimally Invasive Surgery. AORN. Vol 108. No. 3

SAFE USE OF ELECTROCAUTERY



Alkatout, I et al. 2014. Principles and Safety Measures of Electrosurgery in Laparoscopy. JSLS. Jan-Mar; 16(1)

Electrothermal injuries can occur as a result of direct application, direct coupling, capacitive coupling and insulation failure. Many instruments used in laparoscopic surgery are coated with an insulation material. Insulation failure is thought to be a main cause of laparoscopic electrosurgical injuries. Insulation failure is associated with an instrument that is used repeatedly. Around 18% of all insulation defects are along the instrument, which is outside the view of the monitor, but distal to the protective cannula. Most electrothermal injuries to the bowel (approximately 75%) are unrecognised at the time of occurrence. It is therefore critical that the insulation on an instrument be thoroughly inspected each time the instrument is reprocessed.

When it comes to flexible endoscopic surgery, the American Society for Gastro-intestinal Endoscopy remind us that before starting an endoscopic procedure, it is critical that the staff, and the physician performing the procedure must verify the correct patient and procedure to be performed.It is also important to note that the updated South African National Standards for reprocessing of flexible endoscopes and accessories (SANS 373: 2023) has just been published and are available on the SABS (South African Bureau of Standards) website. The new standards describe the importance of verifying flexible endoscopes have been thoroughly decontaminated by visual inspection, by using cleaning verification test (like residual protein tests), and by biological monitoring.

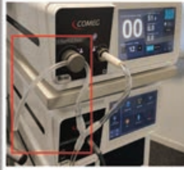
WHAT ABOUT PERI-OPERATIVE TEAM SAFETY?

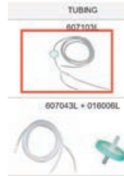
Peri-Op Team Safety: Surgical Plume

Surgical Smoke

The National Institute of Occupational Safety and Health (NIOSH) and the Centers for Disease Control (CDC) have studied electrosurgical smoke at length. They state, "Research studies have confirmed that this smoke plume can contain toxic gases and vapors, such as benzene, hydrogen cyanide, formaldehyde, bioaerosols, dead and live cellular material and viruses."

The Occupational Safety and Health Administration recommends that smoke evacuation systems be used to reduce potential acute and chronic health risks to patients and personnel.[41]





Principles and Safety Measures of Electrosurgery in Laparoscopy

Ibrahim Alkatout, MD, MA, Thorolf Schollmeyer, MD, Nusrat A. Hawaldar, MS, Nidhi Sharma, MS, Liselotte Mettler, PhD

Alkatout, I et al. 2014. Principles and Safety Measures of Electrosurgery in Laparoscopy. JSLS. Jan-Mar; 16(1)

Electro-cautery is often used during endoscopic surgery. This creates surgical smoke also known as surgical plume. Surgical plumes can contain toxic gases and vapours including benzene, formaldehyde, bio-aerosols, and dead and live viruses - all of which are a hazard to the peri-operative team. Use of filters, insufflators with exhaust valves and smoke evacuation systems could help to reduce staff exposure to surgical plume. Correct use of PPE, adequate ventilation, eye wash stations areas where equipment cleaning is performed and immunisations such as Hepatitis B - in accordance with the healthcare facilities protocols - could be measures that can be employed to help protect our teams.

Peri-Op Team Safety: Ergonomics

The position of the monitor depends on the size of the screen that is being used.

Ideally, the monitor should be 90–200 cm away in the straight line across from the surgeon in a gaze-down view.

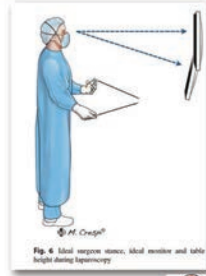


Fig. 6 Ideal surgeon stance, ideal monitor and table height during laparoscopy

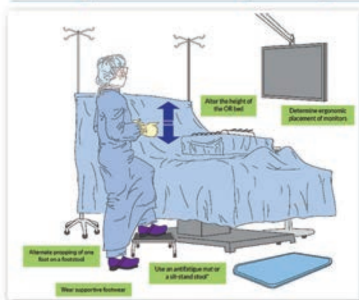
Lomanto, D. et al. 2023 . Mastering Laparoscopic and Thoracoscopic Surgery ELSA Manual. MIS Education Asia eBook.

In addition, the peri-operative team are often required to stand for long hours in awkward positions. A number of surgeons suffer from work-related musculo-skeletal injuries (up to 70%) and therefore ergonomics are very pertinent to laparoscopic surgery (probably even more important than in open or even robotic surgery).

Ergonomics can be defined the scientific study of people at work, in terms of equipment design, workplace layout, working environment, safety, productivity, and training. To ensure good ergonomics during endoscopic surgery be sure to place the surgical monitor 90cm to 200cm away from surgeon and ensure a view that is in a straight line, but with a downward gaze or view. The operating table must be adapted to the surgeon's height and position, and the table's height

should be adjusted so that the laparoscopic instrument handles are slightly below the level of the surgeon's elbows. The elbows should be flexed at an angle between 90º and 120º. Instruments should be inserted such that at least half of the instrument is inside the patient. If less than half of the instrument is inserted inside the abdominal wall, then excessive motion at the shoulder will be required, which is likely to cause fatigue in the surgeon sooner rather than later in the day/schedule.

Guidelines state that when peri-operative team members must stand in the same position for longer than two hours continuously - or for more than 30% of their workday - fatigue-reducing techniques should be used. Fatigue-reducing techniques include wearing supportive shoes, using a sit-stand technique, and propping a foot up on a foot stool.



Periop Briefing . 2020 Using Fatigue Reducing Techniques in the Perioperative Setting. AORN, Vol 116 No 1

As endoscopic surgery is likely to evolve in time to come, is seem prudent for peri-operative practitioners to keep abreast with all the latest surgical techniques and approaches to provide safe care for themselves and their patients.

Xana Jardine has an MSc Nursing. She is the head of SafMed Education and is a Decontamination Clinical Specialist. She delivered this paper at the recent APPSA Congress in May 2023. This paper appears here, courtesy of the author.

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LEGAL COMPLIANCE TO THE OCCUPATIONAL HEALTH AND SAFETY (OHSC) ACT

By Ina Buitenbos

INTRODUCTION

Who is the Office of Health Standards Compliance and what is their mandate?

The Office of Health Standards Compliance (OHSC) is an independent body established in terms of the National Health Amendment Act of 2013 to ensure that both public and private health establishments in South Africa comply with the required health standards. Their mission is to monitor and enforce healthcare safety and quality standards in health establishments independently, impartially, fairly, and fearlessly on behalf of healthcare users, as prescribed by the Minister of Health. The OHSC also ensures consideration, investigation and disposal of complaints relating to non-compliance with prescribed norms and standards for health establishments in a procedurally fair, economical and expeditious manner.

The term health establishment refers to both public and private healthcare services and facilties and includes hospitals and primary healthcare clinics and extends to emergency medical services, hospices, private medical practices and institutions offering frail care.

The functions of the OHSC are set out in Section 29 of the OHSC Act which states that the Office must:

- Advise the Minister of Health on determining norms and standards that are to be prescribed for the national health system and on the review of such norms and standards
- Inspect and certify health establishments as compliant or non-compliant with prescribed norms and standards or, where appropriate, withdraw such certification
- Investigate complaints relating to breaches of prescribed norms and standards
- Monitor indicators of risk to develop an early warning system related to serious breaches of norms and standards and report breaches to the Minister without delay
- Make recommendations for intervention by national, provincial or municipal health departments, or by individual health establishments to ensure compliance with prescribed norms and standards
- Publish information relating to prescribed norms and standards through the media and, where appropriate, to specific communities
- Recommend to the Minister quality assurance and management systems for the national health system.

The Act states that the Office may also:

- Issue guidelines to help health establishments implement the prescribed norms and standards
- Request or collect any information on prescribed norms and standards from health establishments and health service users

- Liaise with and exchange information with other regulatory authorities on matters of common interest and specific complaints or investigations
- Negotiate co-operative agreements with any regulatory authority in order to co-ordinate and harmonise their work where their jurisdictions are closely related

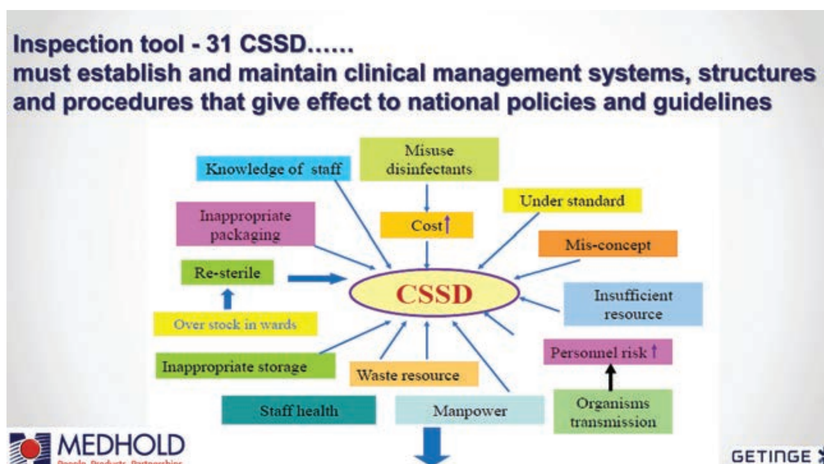
Thus it can be seen that the OHSC Act is clearly defined and explicit in terms of its mandate, and the work that is required in the issuing of guidelines to health establishments.

The OHSC is completely difference from the OSH - which is the Occupational Health and Safety (OSH) Act 85 of 1993. This law was derived to protect the well-being of workers and in enforced by the Department of Labour. The Occupational Health and Safety Act 85 of 1993 intends to:

- Provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery
- Operate for the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work
- Establish an advisory council for occupational health and safety and provide for all matters connected to activities of the health and safety of workers at work.

How does OHSC affect peri-operative practitioners (in particular) and nursing in general?
The norms and standards regulations applicable to different categories of health establishments published in 2018 applies to district and regional hospital. This means that there will be specific inspection tools developed for the different categories of health establishments, such as district, regional, tertiary, and central hospitals, Community Health Centers (CHCs) and clinics). The OHSC has a legal mandate to inspect all health establishments at least once every four years.

There are specific tools that apply to specific areas within an institution such as a hospital and the peri-operative space is Inspection Tool 31.



CSSD must establish and maintain clinical management systems, structures and procedures that give effect to national policies and guidelines

CRITERION ASSESSMENTS

There are various types of Criterion Assessment Tools that are employed to ensure that the guidelines are adhered to. These include the following:

Criterion Standard 31.2.1.1.1.1: All cleaning work completed must be verified by the supervisor or delegated personnel.

- **Assessment type:** Document
  Risk rating: Essential measure

This involves daily inspections will ensure the cleanliness of the unit. The person responsible for overseeing the cleaning service must inspect the unit daily to confirm that cleaning has been carried out according to the schedule, and that all areas attended to have been effectively cleaned. Monitoring tools

Criterion Standard 31.2.1.1.1.2: The unit is observed to be clean.

- **Assessment type:** Observation
  Risk rating: Vital measure

This determines that the inspector has to observe the general cleanliness of the unit including but not limited to whether the unit is free of dirt, dust and stains.

Criterion Standard 31.2.1.1.2: Healthcare providers are informed on the health establishment and their specific responsibilities.

Criterion Standard 31.2.1.1.2.1: Healthcare personnel have been informed about the standard operating procedures of the unit and health establishment.

- **Assessment type:** Document
  Risk rating: Essential measure

Documented evidence that personnel have been informed about the standard operating procedures must be available. This could include, but is not limited to, distribution lists which include personnel signatures to indicate they have read and understood the document (which must be dated and signed), proof of attendance at meetings where policies, guidelines and

standard operating procedures are discussed, or similar evidence for electronic distribution which could include but are not limited to email distribution or documents deposited on intranet or other electronic platforms.

Criterion Standard 31.2.1.2 (2) (b): A health establishment must establish and maintain systems, structures and programmes to manage clinical risk.

Criterion Standard 31.2.1.2.1: Procedures to minimise the risk of healthcare-associated infections (HAIs) must be implemented.

Criterion Standard 31.2.1.2.1.1: An emergency eyewash station or eyewash kit is available.

- **Assessment type:** Observation
  Risk rating: Vital measure

The emergency eyewash station or eyewash kit must be available, functional and it must be easily accessible. An eyewash kit which is moveable is acceptable.

Criterion Standard 31.2.1.2.1.2: Sterile sealed eyewash bottles are checked monthly for leaks and expiry dates.

- **Assessment type:** Document
  Risk rating: Essential measure

A documented record for the previous three months must be available, showing the dates when the eyewash bottles were checked.

Criterion Standard 31.2.1.2.3: The success of sterilisation procedures must be monitored.

Criterion Standard 31.2.1.2.3.1: All sterilisation failures are documented.

- **Assessment type:** Document
  Risk rating: Vital measure

Any identified failures must be documented to provide a record for further analysis. Not applicable: Where no failures are identified

Criterion Standard 31.2.1.2.3.2: All sterilisation failures are investigated.

- **Assessment type:** Document
  Risk rating: Vital measure

All sterilisation failures must be investigated to determine the cause of the failure. A report of the investigation must be available.

Criterion Standard 31.2.1.2.3.3: Action plans are implemented to address gaps identified in the sterilisation process.

- **Assessment type:** Document
  Risk rating: Vital measure

Addressing gaps identified during the investigation will prevent further failures from the same cause. Not applicable: Where no gaps have been identified.

Criterion Standard 31.2.1.2.5: Standard operating procedures for decontamination processes must be available.

Critters Standard 31.2.1.2.5.1: A policy or standard operating procedure or procedure or guideline for decontamination processes is available.

- **Assessment type:** Document
  Risk rating: Essential measure

Verify whether the aspects listed below are included and explained in the document. The information may be detailed in a single document or in several separate documents.

In all the Criterion Standard Assessment Tools the following objectives must be understood:

- Safety awareness in decontamination area
- Departmental dress code - personal protective equipment (PPE)
- Management and decontamination of health establishment loan sets - SANS 1541
- Receiving and handling of potentially infectious instruments and materials for reprocessing
- Safe management and use of hazardous chemicals
- Management of missing/lost instruments
- Safe collection and handling of soiled, contaminated and/or used instruments
- Testing and use of equipment for disinfecting
- Tracking system for product sterilisation, identification, recording and recalls
- Manual decontamination of instruments, including hand hygiene requirements
- Preparation and operation of automated decontamination
- Checking and assembling instrument sets
- Sterile packaging
- Steam sterilisation procedure - loading/unloading
- Sterile pack storage
- Delivery and distribution of processed/sterile items
- Environmental cleaning and disinfection of central sterile services department.
- **Explanatory note: This includes, but is not limited to, scrubbing down of walls and floors**

Criterion Standard 31.2.1.2.5.3: A policy or standard operating procedure or procedure or guideline that details the procedure for sterilisation of used instruments from start to finish is available.

- **Assessment type:** Document
  Risk rating: Essential measure

Verify whether the aspects listed below are included and explained in the document for the sterilisation of instruments. The information may be detailed in a single document or in several separate documents.

- PPE to be worn, including but not limited to caps, goggles, masks, gauntlet gloves and plastic aprons
- Detergent solution to be constituted according to manufacturer's instructions
- Cleaning, rinsing and drying of instruments
- Packing done in wraps according to manufacturer's instructions and South African National Standard (SANS) (ISO 11607)
- Autoclave indicators slip (policeman) to be included in all sets and towels
- Tracking system indicators to be marked on packs and sets
- Storage of instruments to maintain integrity of the sterilised materials

Criterion Standard 31.2.1.2.5.4: Healthcare personnel are able to explain the procedure for sterilising used instruments from start to finish.

- **Assessment type:** Staff interview
  Risk rating: Essential measure
- Interview three healthcare personnel and ask them to describe how they perform sterilisation of instruments according to the standard operating procedure
- PPE to be worn, including caps, goggles, masks, gauntlet gloves and plastic aprons
- Clean sink to be filled with water and detergent
- Detergent solution to be constituted in accordance with manufacturer's instructions
- Instruments to be fully immersed in solution
- Instruments to be brushed, wiped, agitated and irrigated to dislodge and remove all visible material. Explanatory note:
  - These actions must be performed while holding the instruments under water.
  - Instruments to be rinsed thoroughly
  - Instruments to be drained before drying
  - Sterile packaging to be done according to procedure
  - In-pack chemical indicator to be placed in all sets and towels
  - Tracking system indicators to be marked on packs and sets
  - Storage to ensure integrity of materials

OHSC FREQUENTLY ASKED QUESTIONS

How many routine inspections and risk-based inspections were carried by the OHSC during 2020/21 financial year?

- The OHSC carried out routine inspections at 387 public health clinics, against a target of 382 during 2020/21 financial year. Furthermore, the Office carried out eight risk-based inspections at public health clinics in various provinces as part of ensuring service improvement. These risk-based inspections were prompted by reports in the media, which are monitored as part of the early warning system.

What are the main reasons which result in non-compliance by health establishments against the applicable norms and standards in both the public and private sectors?

- The majority of health establishments were found to be non-compliant in the clinical governance and clinical care domains where the non-negotiable risk-rated measures are located
- The requirements related to user health records management, such as the recording of patient care on appropriate clinical stationery, was not adhered to
- Governance and related processes were generally found to be areas of non-compliance
- Principles of document management such as standard operating procedures (SOPs) and guidelines were generally not adhered to in relation to availability, sufficiency of content and validity (approval signatures by the relevant authorities).

WHY IS IT IMPORTANT TO HAVE AN EFFECTIVE CSSD?

The design of a CSSD plays an essential role in addressing infection control issues to minimise the risk of infection transmission. The CSSD plays a vital role in patient safety and in reducing

hospital surgical infection. From an infection control perspective, it is essential to ensure that proper disinfection of surgical instruments and equipment is performed

PREVALENCE STUDY OF HAIS OF SOUTH AFRICAN OCTOBER 2022

There is limited data to describe the point-prevalence of healthcare-associated infections (HAIs) among patients at a regional level in South Africa. The prevalence study of HAIs varied between wards with the highest rate found in:

- ICU - between 25.2% and 100%
- Neonatal ICU/ward - between 7.0% and 53.6&
- Paediatric medical ward - between 2.7% and 33.0%

Surgical Site Infections (SSI) were the most common HAIs

- They accounted for 41.6% of all HAIs
- This was followed by bloodstream infections (17.07%)
- Respiratory tract inflections/pneumonia accounted for 17.04%

Ina Buitenbos is a Registered Nurse who specialised in Operational Theatre Techniques. She is also a facilitator who, after spending many years in both a clinical (hospital) and an industry perspective, joined Medhold Medical 14 years ago. Today she is the Product Manager: Getinge Division - Infection Control. Ina delivered this paper at the recent APPSA Congress in May 2023, in Johannesburg. This paper appears here with her consent.

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NURSING EDUCATION: A NewEra And A New Dawn

By Dr Nelouise Geyer RN PhD fANSA

INTRODUCTION

The last few years have turned our views of 'normal life' upside down in many ways. In addition to the impact of the pandemic on the nursing profession, this period was further impacted upon by the transformation in education broadly in the country. This obviously also had an impact on the education and training of nurses. The major change for the profession had two parallel processes taking place concurrently as we were battling 'a new normal' during and after the pandemic. The one is that the Revised Scope of Practice for nurses have finally been promulgated in 2020, and the second the transition of all nursing education programmes into the higher education band of the National Qualifications Framework (NQF) of the country.

SCOPE OF PRACTICE

The Scope of Practice has been in development since the early 2000's due to changing healthcare needs in the country. The Nursing Act, 2005, furthermore made provision for three different categories of nurses: namely professional, general and auxiliary nurses that had to be provided for in the new Scope of Practice. A few attempts were made to publish for public comment with final promulgation in 2020 as R2127. Technically, the Scope should have been available prior to the new programmes had to be developed - educational programmes should be developed to meet the required skills sets to enable practitioners to practice within the Scope of Practice. The Scope of Practice has been clearly divided into Professional and Ethical Concepts; Clinical Practice - with a separation into care provision and care management - and Quality of Care, addressing quality improvement, CPD, research and professional enhancement.

NURSING EDUCATION

Legislative changes in the country changed the whole education landscape. The NQF Act, 2008 determines that there will only be three quality councils, namely Umalusi (schooling), Council for Higher Education (CHE) for higher education programme, and a new one, Quality Council for Trade and Occupation (QCTO) are currently being recognised. All education programmes in the country had to be recurriculated, accredited and registered with one of these three Councils. This means that the SANC is no longer the education and training quality assurer for nursing education, but this role now resides with the CHE.

The Nursing Act, 2005 make provision for three categories of nurses which will all be registered in future – roles have been closed for new entrants. The only previously existing category of nurse is the enrolled nurse that will be governed by the 'old' Scope of Practice, R2598. Nursing was

slow out of the blocks to get new programmes in place. The Minister of Higher Education (July 2016) declared the last date for intake of students on legacy programmes as December 2019. This meant that all NEIs had to develop new programmes at higher education level for accreditation by CHE and SANC.

CHALLENGES THAT FOLLOWED AFTER THE CHANGES

The public colleges do not meet the criteria to be declared higher education institutions (HEIs), particularly with regard to libraries, IT and facilities. According to the South African Constitution, higher education is a national competence resting under the Minister of Higher Education, and public nursing colleges are managed by Provincial Departments of Health. Educator qualifications require educators to have a qualification higher that the qualification for which the programme is taught. In October 2019 the Minister of Higher Education issued a Ministerial Education Notice making provision for transitional arrangements, designating colleges to offer certificates, diplomas and Bachelor's Degrees.

NEW PROGRAMMES IN NURSING

The regulations for the new nursing programme were published in 2013 and the regulations for specialist programmes, the Post-Graduate Diplomas (PGDip) were only published in June 2020. New specialist programmes could only be developed and submitted after that with the result that for three years, no new specialists were produced. While not included in regulations, SANC requires in the PGDip guideline that only nurses who have a midwifery qualification may enter a specialist programme. This has only served to further increase the gap in the production of new specialists. There is a large component of single qualified general nurses that will, therefore, not be able to enter specialist programmes which they could do in the past.

Positions for entering in a programme for midwifery qualifications as Advanced Diploma are limited and not sufficient to make provision for the numbers that may be required to undergo the training. Several universities have started offering these courses and interested parties are advised to check these institutions out on the SANC website for updated information. The website can be found at https://www.samc.co.za/education-institutions. In terms of transition to the new registers, in future no indication has been given when this will happen, but R195 as amended provides for the transition as indicated in the **Table 1.**

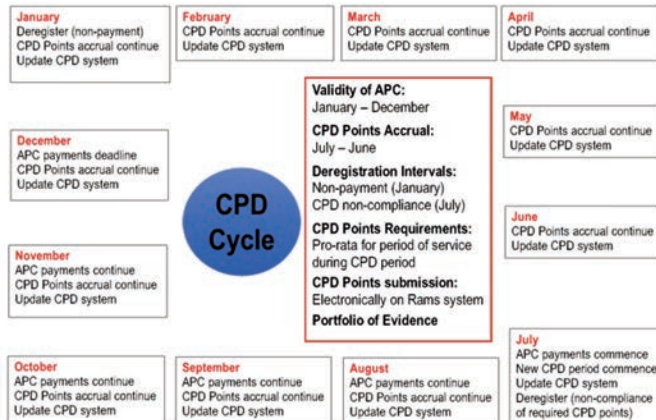
Table 1 Proposed transition to new registers

Current register	Transition to new registers
RN (general, psychiatric, community)	Professional nurse
RN (general & psychiatry)	
RN (general & midwife)	
RN (general)	Professional nurse (general nursing)
RN (psychiatry)	Professional nurse (psychiatric nursing)
RN – mental/mental defectives/sick children/fever	No new entries
Midwife	Midwife
Enrolled nursing	Enrolled nurse
Enrolled nursing auxiliary	Auxiliary nurse

CONTINUOUS PROFESSIONAL DEVELOPMENT (CPD)

The SANC Continuous Professional Development (CPD) framework has been developed but it is not operational yet. The CPD process is being rolled out currently in selected districts to make participants aware of how it will work and to test the process that was developed. The process is more fully outlined in **Figure 1.** At present it has been rolled out in Gauteng, KwaZulu-Natal, the Western Cape, Mpumalanga and the Eastern Cape. North West, Limpopo, Free State and the Northern Cape are expected to start with their rollout towards the end of 2023.

Figure 1 The proposed CPD process



CPD is a purposeful statutory process whereby practitioners registered with the SANC, through personal commitment, engage in a range of learning activities to maintain and improve their knowledge, skills, attitudes and professional integrity. The categories for collecting the required 15 CPD points annually include modules such as ethical and legal; area of practice; leadership and management; training; and research. Points allocation will be one point for attendance and observation at events; two points for actioning or activities undertaken; and three points for developing CPD activities.

Requirements

CONTINUING PROFESSIONAL DEVELOPMENT GRID

NURSING CATEGORY	THEMES FOR DELIVERY AND REQUIRED CPD POINTS					
	Ethical and Legal EL	Area of Practice AoP	Leadership & Management LM	Training T	Researc h R	Total CPD Points
Professional Nurse	4	6	3	1	1	15
Midwife	4	6	3	1	1	15
General Nurse	4	6	3	1	1	15
Enrolled Nurse	3	9	1	2	Nil	15
Auxilliary Nurse	3	10	1	1	Nil	15

Dr Nelouise Geyer is the Chief Executive Officer of the Nursing Education Association. She delivered this paper at the recent APPSA Congress in Johannesburg. This paper appears here, courtesy of the author.

Poster Presentation: QUATTRO® Acute System

Talley

...reducing avoidable harms

WOUNDS UK ANNUAL CONFERENCE, HARROGATE 2017

Clinical evaluation of an active therapy support surface within a critical care unit

Sherwood Forest Hospitals
NHS Foundation Trust

Ann Duffy. Senior Staff Nurse (Tissue Viability Link Nurse), Critical Care Unit, King's Mill Hospital, Sherwood Forest Hospitals NHS Foundation Trust

Introduction

Pressure ulcers are recognised as an avoidable patient harm and represent a key quality indicator for all healthcare providers. The elimination of avoidable pressure ulcers remains a priority within the NHS. [1]

Preventing pressure related tissue injury is all about effectively offloading pressure from patients' tissues. In normal circumstances this is done by combining a suitable support surface with a patient specific repositioning schedule.

Critical care which includes high dependency units (HDU) and intensive care units (ICU) can be a particularly challenging environment in the prevention of avoidable pressure ulcers due to a combination of caring for very ill patients who are often too sick to be regularly re-positioned.

As part of a comprehensive care package, the use of an active therapy support surface is often essential to assist with the prevention of pressure related skin damage. International pressure ulcer prevention and treatment guidelines recommend the use of active therapy support surfaces *'for individuals at higher risk of pressure ulcer development when frequent manual repositioning is not possible'.* [2]

Therefore for critical care patients who cannot be regularly repositioned, the use of an active therapy support surface is an accepted intervention. The key issue for healthcare providers is to determine which active therapy mattress offers suitable levels of tissue offloading and meets the clinical requirements of their most dependent patients.

FIGURE 1.
The QUATTRO Acute active therapy support surface from Talley

Aims

The primary aim of this evaluation was to capture the clinical progress/skin status of patients nursed on the QUATTRO® Acute in the critical care setting, to ensure they all remained free from pressure related tissue injury. Secondary aims include reporting on the user acceptance of the QUATTRO Acute and to document wound progress for any patients with existing pressure ulcers.

Distributed in South Africa by PrionTex

Method

The evaluation took place on a 14-bedded critical care unit catering for level 2 (high dependency) and level 3 (intensive care) patients.

The Talley QUATTRO Acute active therapy support surface (see Figure 1) was evaluated on the unit and used in line with local Trust guidelines.

Patient demographics recorded included age, sex, relevant co-morbidities, pressure ulcer risk level, history of previous and existing pressure damage and nutritional status.

Patient progress was reported weekly and user acceptance of the support surface was determined by structured questionnaires using Likert scales upon completion of the evaluation.

Results

Five patients completed the evaluation on the QUATTRO Acute, 4 males and 1 female (one level 3 and four level 2 patients). Mean age was 78 years and length of stay on the mattress was up to 6 days. None of the patients had pre-existing pressure ulcers on admission to the evaluation.

Pressure ulcer risk was determined using the Purpose T pressure ulcer risk assessment tool. [3] All patients were assessed as being 'at risk' and placed onto the primary prevention pathway. Four hourly re-positioning regimes were undertaken for four out of the five patients, with one patient sitting out for 2 to 4 hours per day and able to reposition independently whilst on the mattress.

None of the patients developed any pressure related tissue damage during the evaluation.

Six staff provided feedback and reported that the QUATTRO Acute was reliable, easy to use, and effective in pressure redistribution and maintaining patients skin integrity.

Discussion

The QUATTRO Acute has been effective in the prevention of pressure related tissue damage for patients nursed within the critical care unit.

When dealing with such a vulnerable, high risk patient cohort their pressure ulcer risk is further compounded by their inability to reposition themselves independently and/or the fact that they have a limited number of positions they can be nursed in.

In this situation it is imperative that the support surfaces chosen by clinicians offer optimal pressure relief and redistribution and that the tissue offloading offered by these products is sufficient to safeguard patients by reducing the risk of pressure ulceration.

Not all alternating pressure air mattresses are the same, therefore evaluating products in the correct clinical setting allows clinicians to make an informed choice when prescribing support surfaces to their patients.

Conclusion

Critical care typically looks after the most clinically dependent patients in the acute care setting and providing safe, harm free care for this patient cohort can be a real challenge for clinical staff.

From a pressure ulcer prevention perspective, ensuring that the support surfaces used in the critical care setting are fit for purpose reduces the risk of pressure ulcer incidence even in the most dependent patients.

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POST-SURGERY PATHS AND OUTCOMES FOR HIP FRACTURE PATIENTS (POST-OP PATHS):

A Population-Based Retrospective Cohort Study Protocol

By Chantal Backman, Soha Shah, Colleen Webber, Luke Turcotte, DI McIsaac, Steve Papp, Anne Harley, Paul Beaulé, Véronique French-Merkley, Randa Berdusco, Stephane Poitras, Peter Tanuseputro

ABSTRACT

Introduction

Hip fracture patients receive varying levels of support post-hip fracture surgery and often experience significant disability and increased risk of mortality. Best practice guidelines recommend that all hip fracture patients receive active rehabilitation following their acute care stay, with rehabilitation beginning no later than six days following surgery. Nevertheless, patients frequently experience gaps in care including delays and variation in the rehabilitation services they receive. We aim to understand the factors that drive these practice variations for older adults following hip fracture surgery, and their impact on patient outcomes.

Methods and analysis

We will conduct a retrospective population-based cohort study using routinely collected health administrative data housed at ICES. The study population will include all individuals with a uni-lateral hip fracture aged 50 and older who underwent surgical repair in Ontario, Canada between 01 January 2015 and 31 December 2018. We will use unadjusted and multi-level, multi-variable adjusted regression models to identify predictors of rehabilitation setting, time to rehabilitation and length of rehabilitation, with predictors pre-specified including patient socio-demographics, baseline health and characteristics of the acute (surgical) episode. We will examine outcomes after rehabilitation, including place of care/residence at six and 12 months post-rehabilitation, as well as other short-term and long-term outcomes.

Ethics and dissemination

The use of the data in this project is authorised under Section 45 of Ontario's Personal Health Information Protection Act and does not require review by a Research Ethics Board. Results will be disseminated through conference presentations and in peer-reviewed journals.

BACKGROUND

Hip fractures in older adults are a substantial cause of morbidity and mortality[1]. Worldwide, the incidence of hip fractures is projected to increase to approximately 2.6 million/year by 2025 and to 4.5 million/year by 2050.[1–3] As the population ages, it is crucial to evaluate the healthcare needs of hip fracture patients in order to improve the quality of care they receive. Best practice guidelines recommend that older hip fracture patients receive geriatric rehabilitation no later than post-operative day six.[4–9] Despite this evidence, hospitals are facing challenges with timely referrals of patients to geriatric rehabilitation due to patient complexities (such as cognitive impairment, multi-comorbidities) and to system capacity.[10]

In some cases, when resources are scarce, access to geriatric rehabilitation is non-existent. Lack of rehabilitation services is associated with decreased functional status, mortality, failure to return to independent living or readmission.[11–13] Patients often experience gaps in post-operative care including delays and variation in the rehabilitation services.

Studies have identified considerable variation in hip fracture care across different countries.[14–16] Recent research by Pitzul *et al*[10 11] examined the discharge destination of older hip fracture patients in Ontario, Canada between April 2008 and March 2013. That study identified 49 unique post-acute care pathways and variation among health regions in post-acute discharge destinations. There are gaps in care and patients often do not experience optimal outcomes after hip fracture. We hypothesise that there will be significant variation in post-hip fracture rehabilitative care, with variations in care associated with both patient socio-demographic (for example, age, sex, neighbourhood income) and baseline health (such as functional and cognitive performance, frailty, co-morbidities) characteristics. Further, we expect that there will be subgroups of patients, identified by both socio-demographic and baseline health characteristics, who may benefit differentially from different types of post-acute care.

Our study builds on previous work that has described practice variations for hip fracture patients in Ontario.[10, 11] We aim to understand factors that are driving those practice variations and their impact on patient outcomes.

Specific objectives are:

- To characterise the associations between baseline characteristics (for example age, sex, neighbourhood income, rurality, functional and cognitive performance, frailty, co-morbidities), acute episode of care (surgery) characteristics and post-acute rehabilitation care settings
- To examine the associations between baseline characteristics, acute episode of care (surgery) characteristics and time to initiation of the rehabilitation, as well as length of the rehabilitation services
- To evaluate how post-acute rehabilitation care settings, time to initiation of rehabilitation as well as length of the rehabilitation services are associated with place of care/residence at six and 12 months post-surgery, as well as other short-term (return to the emergency department, hospital re-admissions) and long-term (new long-term care admission, days at home, health service utilisation, costs, functional status, health-related quality of life, cognition) outcomes.

METHODS

Study design and data source

We will conduct a retrospective cohort study using population-based linked administrative health data available at ICES (previously known as the Institute for Clinical Evaluative Sciences). ICES is an independent, non-profit research institute whose legal status under Ontario's health information privacy law allows it to collect and analyse healthcare and demographic data, without consent, for health system evaluation and improvement.

For this study, we will develop our data analytical plan from several databases including the Discharge Abstract Database, Registered Persons Database, Ontario Health Insurance Claims database, Continuing Care Reporting System, Ontario Census (CENSUS), Postal Code Conversion

File, Resident Assessment Instrument-Home Care and inter Resident Assessment Instrument-Home Care, National Rehabilitation Reporting System, Home Care Database, Assistive Devices Programme and National Ambulatory Care Reporting System. Our study reporting will follow the relevant reporting guidelines.[17, 18]

Study cohort

All individuals with a uni-lateral hip fracture aged 50 and over who underwent surgical repair in Ontario, Canada between 01 January 2015 and 31 December 2018 will be included. These individuals will be identified using International Classification of Disease 10th Edition (ICD10CA) codes S72.0 (fractures of neck of femur), S72.1 (pertrochanteric fractures) or S72.2 (subtrochanteric fractures). We will exclude individuals with pathological fractures (ICD10CA M8445), malignant neoplasm (ICD10CA C0-C9) and Paget's disease (ICD10CA M880, M88, M888).

Exposure

The main exposure is post-acute rehabilitation care services. Post-acute rehabilitation services include rehabilitation settings (for example, geriatric rehabilitation, short-term rehabilitation, slow-pace rehabilitation, convalescent care, home-based rehabilitation), time to initiation of the rehabilitation, as well as the rehabilitation length of stay (LOS).

Outcomes

Our primary outcome is place of care/residence at six and 12 months post-surgery (such as, death, acute hospital, long-term care, rehabilitation, home with support, home no support).[19] Our secondary outcomes are return to the emergency department within 90 days of hospital discharge (and reason), hospital re-admissions with 90 days of discharge (and reason), new long-term care admission, an adjusted validated day alive at home indicator,[20] survival at six and 12 months, health service utilisation (such as, follow-up visits with family physicians or specialists, new or increased home care services) and healthcare costs across the system using a costing macro developed at ICES.[21] For patients discharged home with home care, complex continuing care or long-term care, we will additionally capture functional status at rehabilitation discharge (for example, self-care, sphincter control, transfers, locomotion, communication, social cognition), cognition level and health-related quality of life.

Covariates/potential confounders

The following variables will be examined as potential predictors and/or confounders:

Socio-demographic characteristics: Age at hospital admission, sex, marital status, geographical location (including, census areas, rurality (ICES Macro: %getdemo)), living situation prior to admission (for example, home without home care, home with home care, in long-term care), neighbourhood income quintile. For home care and long-term care patients, we will also examine presence of caregiver, caregiver type, caregiver living status and caregiver distress prior to acute index admission date.

Baseline health characteristics: Prior fall resulting in an emergency department visit or acute care admission, co-morbidities (using the Health System Performance Research Network multi-morbidity macro),[22] frailty status (using a validated, accumulating deficits frailty index (%getpFI Macro)).[23] For home care and long-term care patients, we will also capture weight-bearing

status and pre-fracture functional status based on activities of daily living (ADLs) and instrumental ADLs, cognition level and health-related quality of life.

Characteristics of acute episode of care: Type of surgical intervention, surgery day of the week, acute LOS, days from hospital admission to surgery, post-surgery LOS, post-operative complications defined as any in-hospital patient safety events using a validated set of ICD-10 indicators.[24]

Characteristics of rehabilitation services: Type of therapy services received (eg, physical therapy, occupational therapy, recreational therapy, social worker), rehabilitation intensity (minutes per day) and rehabilitation frequency (days per week) and discharge location following rehabilitation. The data variables, sources and codes are described in online supplemental appendix 1.

Data analysis

Sample size

We will include all individuals who meet the study inclusion criteria defined above. Based on the average number of hip fractures per year in Ontario (n=13 000), we estimate that we will have a study population of approximately 52 000 hip fracture patients.

For objectives 1 and 2: To characterise the associations between baseline characteristics, acute episode of care (surgery) and post-acute rehabilitation care settings (Obj. 1) as well as time to rehabilitation initiation and length of rehabilitation (Obj. 2)

We will use descriptive statistics to summarise the socio-demographic, baseline health and acute episode of care characteristics of patients according rehabilitation setting (Obj. 1) as well as time to initiation of the rehabilitation, and length of the rehabilitation (Obj. 2).We will compare differences in outcomes using unadjusted and multi-level, multi-variable adjusted regression models. Multi-variable models will adjust for clustering at the acute hospital level using generalised estimating equation (GEE) methods. Variables that will be analysed include socio-demographics, baseline health and acute episode of care characteristics. Regression models will be chosen based on the outcome format (such as, multi-nomial logistic regression for rehabilitation setting, log-gamma regression for length of rehabilitation) and Cox proportional hazards models for time to rehabilitation initiation).

For objective 3: To evaluate how post-acute rehabilitation care settings, time to initiation of the rehabilitation as well as length of the rehabilitation services are associated with place of care/residence at six and 12 months post-surgery as well as other short-term and long-term outcomes

We will use descriptive statistics to describe patient outcomes, including place of care/residence at six and 12 months post-surgery and other short-term (return to the emergency department, hospital re-admissions) and long-term (new long-term care admission, days at home, health service utilisation (including follow-up visits with family physicians or specialists, new or increased home care services and healthcare costs) outcomes. For patients discharged home with home care, complex continuing care or long-term care, we will describe functional status, cognition level and health-related quality of life outcomes.

We will estimate the unadjusted and adjusted association of post-acute rehabilitation care settings, time to initiation of the rehabilitation as well as length of the rehabilitation on outcomes using regression models chosen to align with outcome form (such as, ordinal logistic regression for the ordinal primary outcome, binary logistic regression for dichotomous outcomes, Cox proportional hazards models for time-to-event outcomes). Time-to-event outcomes will account for mortality as a competing risk as required. All model building will be based on clinical relevance according to the specific research question being evaluated. Variables will be chosen *a priori* as confounders for adjustment in multi-variable models based on clinical knowledge and evidence that they are likely to be associated with the exposure and/or outcome and not on the causal pathway between the exposure and outcome. Fully adjusted models will be reported, and we will account for clustering by acute care hospital (index admission) using GEE in all analyses. While we expect missing data to be minimal, we will explore procedures to handle missing predictor variables in multi-variable models, including complete case analysis and imputation procedures. All data processing and statistical analysis will be performed by ICES Analysts in SAS (SAS V.9.4, SAS Institute).

Patient and public involvement

The study consists of a retrospective analysis of secondary data collected from ICES linked databases. There will be no direct patient involvement.

Ethics and dissemination

The use of the data in this project is authorised under Section 45 of Ontario's Personal Health Information Protection Act and does not require review by a research ethics board. Results will be disseminated through conference presentations and in peer-reviewed journals. We will also organise an end-of-grant meeting with researchers, knowledge users and clinicians to review findings, discuss opportunities for further investigations, and identify the next steps for the development of clear guidelines on the post-acute pathways.

CONCLUSION

While hip fractures are relatively common in older adults, we do not know how best to support their post-acute care needs. There is little evidence regarding the types of rehabilitation care individuals should receive, and how the care received is influenced by clinical (including, frailty) and non-clinical (such as, supports at home) characteristics. Neither is there evidence for what characteristics constitute effective rehabilitation, nor whether different patients would benefit from different rehabilitation services. This research fills these knowledge gaps by documenting variations in care and short-term and long-term outcomes post-surgery for hip fracture patients using linked population-level clinical and administrative databases held at ICES.

With the evidence generated by this study, we will begin the development of post-acute pathways that will directly impact the care provided to these patients across the province as well as identify resource allocation based on the number of patients in a region. This research will support personalised decision-making around post-acute care by identifying those patients most likely to benefit from specific types of rehabilitation.

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Funding: Funding was received from the Bruyère Academic Medical Organisation (BAMO) Innovation fund (BAM-22-01).

Competing interests: None declared.

Patient and public involvement: Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication: Not applicable.

Provenance and peer review: Not commissioned; externally peer reviewed.

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REGULATION OF ADVANCED PRACTICE IN NURSING
And Other Healthcare Professions

By Kate Woodhead, RGN, DMS

INTRODUCTION

Did you know that advanced nursing practice (ANP) is not regulated? I was very surprised by my own ignorance recently to discover this fact. However, there is a move by the Nursing and Midwifery Council (NMC) to consider this over the next year. It is not without complication. A recent report by the Nuffield Trust will feed it's findings into the regulatory process - and it makes for interesting considerations. The impact of the report is to consider advanced practice roles for a range of different healthcare professionals although nursing and midwifery are the main protagonists.

The concept of what is advanced practice is not only dynamic, but also based on the 'normal' scope of practice of a nurse or midwife. The scope of practice is essentially a definition of all the activities carried out within a role, and provides expectations of behaviours, responsibilities and duties. So that an advanced role is expected to practise the scope plus but still within acceptable boundaries. The interesting element here is that the responsibility for maintaining expertise in practice within the boundaries is largely down to the individual, their role and oversight by their employer. Governance is self- determined and very specific to the role the individual plays in the team and according to their job description.

The report cites international comparisons that the UK is behind the curve in terms of regulation with only Finland sharing the position of self-regulation. Countries such as Australia, New Zealand, USA, Canada and Ireland all have regulatory systems set up for advanced practice roles.

Examples of skills and competencies which are used regularly by Advanced Nursing Practitioners (ANPs) are said to be, but not limited to:

- Undertake a comprehensive and sophisticated physical and/or mental health assessment of patients with complex multiple healthcare needs and/or in crisis
- Interpret the results of multiple different assessments and investigations in order to make a diagnosis, and plan and deliver care
- Confidently and competently make ethical, evidence-based decisions and interventions when faced with complexity, and assess and manage the risk associated with these decisions
- Utilise therapies such as cognitive behavioural therapy when working with patients with mental health conditions, either in isolation or associated with a physical long-term condition
- Prescribe and work with individuals to manage their medicines

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- Work independently, but also as part of a multi-disciplinary team and exercise values-based leadership
- Plan and provide skilled and competent care to meet a patient's health and social care needs involving or referring on to other members of the healthcare team as appropriate[1].

There is very little that ANPs are not allowed to do according to the law. They can assess a patient, make a diagnosis and provide treatment, just like a doctor. However, they do this within a clearly defined scope of practice that is agreed with their employer, and the level of medical complexity that they deal with is usually less than that of a doctor. Preparation for the role is recognised globally as master's level academic study, as well as time in practice to develop advanced clinical skills.

This is where the risk for patient safety lies although the report[2] suggests that there is very little risk identified by the literature. However, as patient care becomes more complex with multi-morbidities to consider, the risk of not being regulated provides little protection for the patient or the individual practitioner. Providing public confidence and protection of the public is the main purpose of regulation in healthcare.

THE MERITS OF ADVANCED PRACTICE

Practitioners within an advanced practice role are able to make decisions on the assessment, diagnosis and treatment of people who present themselves. They have the ability to deal with complexity, uncertainty and varying levels of risk and are professionally accountable for their clinical decision making. Notions of autonomy and or independence of the practitioner are also considered important, although how these terms are defined is often nebulous[3]. The merits of advanced practice are not in doubt. There is substantial literature that demonstrates that it can support better delivery of services and improve a range of outcomes for people who use services. There is also an argument for better retention of people when so many are leaving the professions. The promise of increased recognition, status and better pay might not only attract more into the roles, but also act as a retention factor. The ambition of the roles is that the expertise will benefit service users, practitioners and the NHS. Some of the key challenges they are designed to meet are to provide care more economically, addressing workforce shortages by providing higher level clinical roles and offering career development.

The roles are not just confined to nursing, there are also a number of advanced practice midwives although centrally it is difficult to understand their roles, as midwifery has a considerable degree of autonomy already in it's practice. Reviewing the Health and Care Professions Council, there are around 2 000 allied health professionals who consider themselves to be practising or working towards advanced level practice in the UK in 2021. Roles in Radiography and Operating Theatres being common care settings, as well as developed roles in the Ambulance service. The advancement of clinical practice is reliant on practitioners who can visualise the future with the potential of advanced practice and pursue that vision[4]. They need to be bright enough to manage the academic requirements, enjoy the challenge of problem solving, and be resilient within a team but often working alone. The experience of many nurses developing new roles as surgical care practitioners 20 years ago was that there was a degree of professional jealousy from colleagues which made the implementation of developing practice a difficult task requiring great resilience by the individual. It is to be hoped that this era has passed.

OPTIONS FOR REGULATION

The Nursing and Midwifery Council (NMC) has a number of options in front of it with decisions that have many consequences. The focus groups run by the Nuffield Institute, as it worked on this report, held a consensus view that some form of specific regulation was required for advanced nursing and midwifery practice and that the *status quo* was not satisfactory. Individuals suggested that an annotation on the existing Register would be a reasonable way forward. This promises some benefits - a boost to the profession, clear standards for educational attainment and job descriptions, and improved patient safety without major revisions to other aspects of regulation[5].

The regulator (NMC) could decide to leave the regulatory framework as it is, at least in the short term, before the Health Regulations Bill becomes law - which will change many other aspects of healthcare professions regulation. The changes could equally imply that Nursing and Midwifery need to more accurately define the nature of advanced practice and annotate the current register for advanced practice qualifications, or evidence of equivalence.

In February this year, following extensive consultation, a proposal for the future of healthcare regulation was set out by the UK Government[6]. The outcome is substantial reform of the environment of healthcare regulation. The plan is to reduce some of the rigidity and inflexibility in the current legislation by a series of statutory instruments, giving each regulator greater autonomy to set out their own 'rules' for the professions they regulate. This greater degree of freedom will enable more flexibility to respond to future healthcare needs. and to protect the public. There will also be a duty to collaborate with other regulators. In addition, there will be an onus on each regulator to determine the standards of education and training, as well as to identify specific and approved education and training providers. It will be their responsibility to provide assurance that the providers are meeting the needs of the service and equipping learners with the skills, knowledge and experience they need.

Other options for regulation, even in the new environment, include developing a second tier of the current NMC register, specifically for advanced practitioners, based on competencies, which might be assessed by examination or a portfolio. This is generally viewed, at least internationally, as offering the most advantages to both the public and the profession. Those in the focus groups who advocated for a second tier often did so because they believed in wholesale reform which would remove the historical irregularities and anomalies left over from previous reforms. However, as we have discovered with the development of new powers and autonomy for the NMC, perhaps that time has already come.

OTHER ROUTES TO STRENGTHENING ADVANCED PRACTICE

The NMC could, regardless of the heralded changes to healthcare regulation, make use of other influences such as engaging and encouraging employers to develop consistency in roles and role descriptions. Greater governance and safeguards for the public could be attained by promoting consistency and quality in education delivery across advanced practice academic programmes. Northern Ireland and Scotland have set precedents for this by developing and implementing a joined-up system of service and educational needs assessments matched to the commissioning of educational places, alongside robust governance and accountability arrangements. It has also been suggested that other regulatory bodies should be encouraged to be more vigilant in ensuring that practitioners are appropriately employed, with structures in

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place to enable governance and oversight. This could be reviewed by the Care Quality Commission who already has the power to ensure that staff have the appropriate qualifications, competence, skills and experience to keep patient safe, as well as a broad oversight of different care providers. There is also a view that there should be a cross-national strategy to address the issues of advanced practice across the departments of health, the medical and nursing royal colleges, higher education providers and employers. This solution seems to be a bit of a 'fudge', giving no one the final say and inevitably a compromised outcome on all fronts. However, more responsibility could be given to employers to ensure that they support and strengthen the accreditation of courses and the credentials of individual practitioners.

CONCLUSION

In conclusion, there are no published decisions yet on how the NMC will respond to the deliberations and the content of this report. The timing is interesting, coming as it does at a time of significant change to all healthcare regulation and with greater freedom for the NMC to determine it's own rules for practitioners at every level. Any proposed regulation of advanced practice would need to meet the Professional Standards Authority principles of good regulation, the report states, which is that regulators should act in ways that are proportionate, consistent, targeted, accountable and agile[7].

A shift from professional self-regulation seems to be inevitable with an increasingly litigious population and greater morbidities in the patient population. Advanced practice is a good thing for the individual practitioner and for their patients, but it needs to be assured by appropriate level management and governance to enable it to develop safely. Advanced practice probably needs to be contained in a more constructed framework, so that employers, the individuals, their educators and mentors all understand the context, so that patient safety is upheld at all times.

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This article first appeared in the APPSA Journal August 2023 and will also appear Clinical Services Journal in August 2023. It appears here, courtesy of the author.

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WHAT'S IN NURSING'S FUTURE?

By Sheila L Allen, BSN, RN, CNOR(E), CRNFA (E)

INTRODUCTION

During the pandemic, greater minds than mine gathered in the US to talk about Nursing's Future and the many challenges that nurses will face in new and complex ways. Nurses represent the largest number of healthcare professionals and are often the first line of contact with people from all experiences and backgrounds seeking care. We work and live at the crossroads of communities, health, and education in a variety of professional levels in a broad spectrum of facilities.

The continued demand for nurses will only increase due to the needs of a population that is aging, increases in a lack of access to primary healthcare, increased maternal mortality rates, worsening physician shortages, increasing issues with mental health conditions, and healthcare workforce imbalances, to name just a few of the challenges faced. Education, health-related policies, healthcare systems, regulations, and scope-of-practice issues will also impact outcomes. To continue to have the trust in, and engagement of, healthcare systems, nurses will need to maintain their role of care co-ordination and advocates for patients and communities.

Resignations, attrition, demand for competitive compensation, better work environments, safe nurse staffing, moral leadership, a politically-charged healthcare consumer base, and high acuity for complex care demands in a politically charged environment is 'nursing's tsunami'[1].

NURSING SHORTAGES

Shortages of nursing personnel is not only occurring in the United States, but is also being documented all over the world. In a recent report, the World Health Organization documented that the world could be 5.7-million nurses short by 2030[2]. The US has had cyclical and periodical shortages of nursing since the 1900s due to natural disasters, world wars, dissatisfaction of the work environment, aging demographics, recessions, and supply and demand for healthcare. I know that I have heard about the US having shortages in the nursing profession since the late 60s. In a 2018 report from the US Bureau of Labor Statistics' Employment Projections, 175 900 openings for RNs predicted each year through 2029[3]. There seem to be many contributing factors to this unprecedented shortage.

STRENGTHENING NURSING EDUCATION AND EXPANDING CONTRIBUTIONS

Nursing education coursework and experiential learning that prepare students will help build the capacity of the nursing workforce. In the US, many of our nursing schools are turning away students because of nursing faculty shortages. While the trend has been for nurses to achieve higher education, those with higher degrees may not be returning to the bedside, may not be involved in direct patient care, and may not be lending their expertise to the education of the nursing community.

Lifting the barriers and restrictions for Advanced Practice Registered Nurses (APRNs) so that they may practice to the fullest extent of their education and training will increase the types and amount of high-quality healthcare services for patients especially in rural areas. Increasing services to those with complex health and social needs will include changing institutional barriers for all nurses including registered nurses (RNs), and licensed practical nurses (LPNs) to allow them to practice to the highest level - based on their education and training.

Utilising the myriad of nursing roles in community and public health nursing can serve as a bridge between healthcare and educations systems in the education of nursing students to prepare them for the broader community health issues. The issues of the pandemic have demonstrated the heightened need for team-based care, person-centered care, infection control and prevention, and population-based skills that reflect the strengths of community and public health nurses. Preparing a new generation of leaders that recognise the evidence base supporting the sink between social determinants of health (SDOH) and health status. These leaders will need to be prepared to respond to disasters, workplace hazards, limited access to healthcare, and pre-existing conditions. How we articulate our responsibilities and roles to the management of disasters and public health emergencies will be critical to the capacity to plan and respond to these types of events.

INSTITUTIONAL RESPONSIBILITIES

The institutions where healthcare is performed can be pivotal in the recruitment and retention of their nursing personnel. Nurses are the primary users of the electronic health record (EHR) and should be involved in the creation and updating of the systems used in the facility. They need to be involved in the navigation, functionality, system performance, response time, and documentation workload. Efforts that reduce the documentation burden could be a recruitment tool for prospective employees. Nursing services are embedded as a line item in room-and-board for patients and essentially invisible to in-patient billing system. That system does not account for intensity of nursing care or patient acuity during hospitalisation. Nursing services should be designed for value and submitted as a separate line item. New payment models can give healthcare organisations the flexibility to address staffing issues and other issues that impact recruitment and retention of employees.

The consequences of workplace violence can have a profound impact on nurses and healthcare organisations, and therefore adversely affect the quality of patient care and outcomes. In a 2019-2020 survey from the American Nurses Association, violence and bullying at work are the top two hazards nurses experience. Facilities should develop zero tolerance for these issues, and nurses need to employ incident reports and speak up to report incidence of this nature. Security systems should be examined and improved and de-escalation training could be provided to personnel.

CONCLUSION

In conclusion, we need to ask the difficult questions. Questions like what are healthcare organisations and leaders willing to do to recruit and retain nurses who are no longer willing to accept the *status quo*? There is a clear demand for these issues to be addressed. Innovation and creativity will be needed to attract and keep qualified nursing personnel in the future. The

pandemic offered some opportunities for some nurses to have more autonomy, shifted payment models, and it has been the catalyst for overdue conversations about these challenges. Nurses will be exploring and leveraging the additional skills they possess both inside and outside of nursing to support efforts to improve their value to be appropriately compensated. Policy makers and system leaders should engage in these critical conversations to chart a more efficient course of health and well-being for all concerned.

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Sheila Allen served as the National AORN President between 2001 and 2002 and the IFPN Secretary between 2001 and 2007. She is a regular contributor to the APPSA Journal and offers contemporary studies and opinions of great value and interest. She wrote this paper specifically for the APPSA Journal and the article appears here, courtesy of the author.

APPSA

APPSA WORKSHOPS AND STUDY DAYS FOR 2023

Western Cape Chapter
The following dates have been identified for our educational programmes for 2023. Please make a note to diarise these dates to avoid missing out:

19 August 2023
Venue: Vincent Pallotti Hospital, The Park Lifehealth Care College of Learning
The Theme of the Day: *Anaesthesia and Recovery Room*
25 November 2023
Venue: TBA
The Theme of the Day: *Wellness for the Peri-operative Practioner*

These dates however are subject to change, and you will be informed should changes be unavoidable. These dates exclude school holidays and public holidays.

For further details please contact your Chapter Secretary, Rosemary Lawrence at rcainlawrence@gmail.com

MEDICAL NEWS

Junior Doctors Still Awaiting Placement

MedicalBrief of 12 July reported that 79 junior doctors, supposedly allocated to public hospitals in Limpopo for their community service and who were due to start work on 01 July, have still not received their contracts. National Department of Health (NDoH) spokesman, Foster Mohale, said the matter had been referred to the national co-ordinator, Nkosinathi Mjoli.

This is not the first time such reports have surfaced. *News24* says that issues of placements have been occurring every January and July for years, with junior doctors waiting for medical internships and community service unsure about their future in the medical field. The SA Medical Association (SAMA) said the public healthcare system relied on the placement of interns and community service doctors to increase its staff complement. SAMA spokesperson Dr Mvuyisi Mzukwa said mid-year placement had been managed better than the previous cycle, with 105 interns and 363 community service doctors being placed, but that enrolment at medical schools needed to double to curtail a shortage of healthcare workers. "There are currently 0.88 doctors per 1 000 patients in South Africa. This does not bode well for providing quality health outcomes to patients. The health authorities have to address the filling of vacancies in public hospitals," Mzukwa added.

Last week, the national Department of Health announced it had finalised the placement of more than 1 100 medical interns and junior doctors on the Internship and Community Service Programme. However, those in Limpopo are yet to start working. Mohale said applicants were told to report for duty on 1 July, and only those who applied on the department's application portal had been considered. The 79 affected junior doctors had all applied via the portal and been accepted by the national department.

Charlotte Maxeke Elective Surgeries Cancelled

On 12 July, DA Gauteng Shadow MEC for Health, Dr Jack Bloom, reported that cold weather had forced the cancellation of surgery at the Charlotte Maxeke Hospital for the last three days as the heating system has failed. Temperatures in the operating theatres are as low as 8º C, but the temperature needs to be set at about 18º C for safety reasons. More than 50 elective cases have been cancelled so far, but emergency surgery is continuing in suboptimal conditions. This latest disruption to surgery follows 2218 operations that were cancelled for various reasons at the hospital from January 2022 to May this year. He said:"It is disappointing that lack of maintenance and equipment failure causes suffering to patients who can wait more than a year for many operations." Earlier this week a number of wards at the hospital were flooded and some patients had to be evacuated. Professional management is needed to fix this hospital's infrastructure instead of the perpetual bungling and corruption in the Gauteng Department of Infrastructure Development.

Post-TB Lung Disease More Common Than COVID In South Africa

MedicalBrief of 12 July reported that millions of people in South Africa are suffering from post-TB lung disease, which is far more common than COVID and the most common cause of pulmonary disability in the country, according to experts. UCT professor of respiratory medicine Keertan Dheda, who established the post-COVID lung disease clinic at Groote Schuur Hospital in July 2020, said most of the patients attending the clinic because of on-going difficulty in breathing, shortness of breath, chest pain and fatigue, have post-TB lung disease. Although the most common and severe symptoms are respiratory, many patients suffer a range of symptoms, like musculo-skeletal pain and fatigue, reports the *Sunday Times*.

Dheda, professor of mycobacteriology and global health at the London School of Hygiene and Tropical Medicine, added that TB remains the most common cause of death in South Africa, with about 400 000 new patients every year. Pre-existing lung disease, structural damage to the lung and post-ICU syndrome can also contribute to distressing respiratory symptoms, making treatment complex. He said: "Post-ICU syndrome is a form of post-traumatic stress disorder (PTSD) characterised by weakness, fatigue, difficulty in breathing and other symptoms. It remains unclear how many of these chronic symptoms, both respiratory and non-respiratory, are exclusively due to COVID or may be seen in other severe infections and diseases, and especially those who have been in the ICU for whatever reason."

South Africa In Multi-Billion Dollar Trial For New TB Vaccine

MedicalBrief of 05 July reported that South Africa is among the countries which will take part in a $550-million Phase Three clinical trial of M72, a new candidate vaccine against pulmonary TB, which, if successful, will be the first new in more than 100 years and the first that is efficacious in teenagers and adults. The 26 000-person trial is jointly funded by the Bill & Melinda Gates Foundation and the Wellcome Trust and will begin next year and run until earliest 2027 but could go on as long as 2029. The M72/AS01 vaccine showed promising results from a smaller trial in 2019, the findings stoking excitement at the time. But a larger, confirmatory study was delayed as GSK, the company then developing it, transferred the shot to the Gates Medical Research Institute, an affiliate of the foundation, rather than move forward with the vaccine itself, reports *STAT News*. "We experienced quite a bit of frustration with how long it took," said Thomas Scriba,

a University of Cape Town immunologist and an investigator on both studies, calling the news "an unbelievably positive development … the world really needs a TB vaccine." The only TB vaccine currently available is Bacille Calmette-Guérin (BCG), which was created by a French team and first used in 1921. Made from the bacteria that causes bovine tuberculosis, it is given to children in many middle-income and low-income countries, but studies measuring its effectiveness have shown mixed results, and it doesn't protect adolescents or adults. Dr Trevor Mundel, head of Global Health at the Bill & Melinda Gates Foundation, said M72 had shown much promise in preventing TB in people with latent infections, but who are not ill, reports *Daily Maverick.* This, he pointed out, was an important segment of the population to target. *The World Global TB Report,* released in November 2022, shows the devastating impact of the disease on South Africa where it is estimated that 304 000 people fell ill with TB in 2021 and 56 000 died. It remains one of the leading causes of death in the country. Globally, TB claimed 1.6-million lives in 2021 and an estimated 10.6-million people fell ill with it. The disease primarily affects low-income and middle-income countries. It is further estimated that as much as 24% of the world's population has latent TB, meaning they are infected, but not ill. They are at greater risk, though, of developing TB.

Unsafe water and sanitation to blame for 7 000 deaths in South Africa – WHO report

A study released by the World Health Organisation (WHO) shows that unsafe drinking water, sanitation and hygiene practises in South Africa were responsible for more than 7 000 deaths and more than 640 000 disability-adjusted life years (DALYs) in children under five. Titled *Burden of disease attributable to unsafe drinking water, sanitation and hygiene: 2019 update*, the study presents estimates of the disease burden attributable to unsafe drinking water, sanitation and hygiene for 183 WHO member states for 2019, disaggregated by region, age and sex. These were based on four health outcomes - diarrhoea, acute respiratory infections, under-nutrition and soil-transmitted helminthiasis. One DALY represented the loss of the equivalent of one year of full health, said the WHO, adding that the DALYs for a disease or health condition "are the sum of the years of life lost to due to premature mortality (YLLs) and the years lived with a disability (YLDs) due to prevalent cases of the disease or health condition in a population".

News24 reports that more than three-quarters of all WASH-attributable (water, access to sanitation, hygiene) deaths were in the African and Southeast Asia regions, while 89% of attributable deaths were recorded in low-income and lower-middle income countries. In the Africa and Southeast Asia regions, the WHO report recorded 510 000 and 593 000 deaths, respectively. In contrast, just 33 000 deaths attributed to WASH were recorded in the European region. Diarrhoeal disease accounted for most of the attributable burden, with more than 1-million deaths and 55-million DALYs. "The second largest contributor was acute respiratory infections from inadequate hand hygiene, linked to 356 000 deaths and 17-million DALYs. There were 273 000 deaths from diarrhoea and 112 000 deaths from acute respiratory infections, the top two infectious causes of death for children under five globally," read the report, which also said that 15 843 people died from diarrhoea and 39 583 from acute respiratory infections in South Africa. The report's accompanying data tool showed 23.1% of people in South Africa still used limited sanitation services, that 29.7% of people used basic sanitation services that were not connected to a sewer. At 53.3%, only slightly more than half of all South Africans had access to handwashing facilities with water and soap. Alarmingly, 89.1% of people did not wash their hands with soap after faecal contact such as toilet use.

APPSA GUIDELINES

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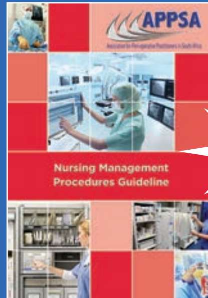

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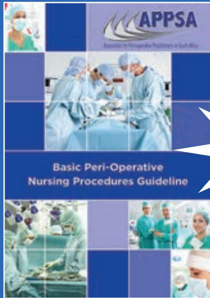

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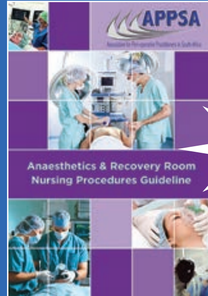

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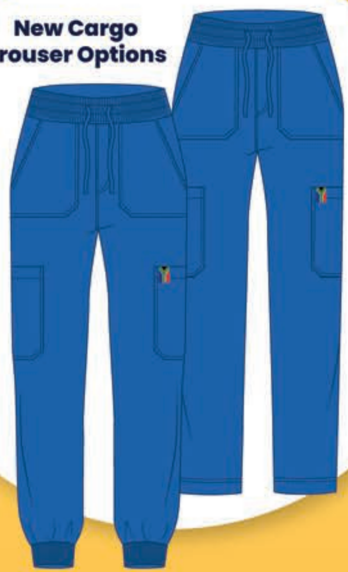

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