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NSA President (2022-2024)

*For Editorial Team*

**ABSTRACTS OF THE 30<sup>TH</sup> ANNUAL SCIENTIFIC CONFERENCE OF THE NIGERIAN SOCIETY OF ANAESTHETISTS (NSA) HELD IN COLLABORATION WITH THE WORLD FEDERATION OF SOCIETIES OF ANAESTHESIOLOGISTS (WFSA)**

**Date – November 21st -25th 2022**

**Venue – Ibet Hotel, Abuja, FCT - Nigeria**

**NSA 01:**

**CASE REPORT: DIFFICULT INTUBATION IN A PATIENT WITH A HUGE THYROID MASS**

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**Introduction:** Airway management problems may arise when intubating patients with goiters scheduled for thyroidectomy. Difficult intubation is a common finding in these group of patients and not being able to secure the airway is a nightmare to the Anaesthetist. Goiters are not uncommon in sub-Saharan Africa, thyroidectomy being the main treatment.

**Case Presentation:** We report a case of difficult intubation management in a 51 year-old man with thyroid swelling of 15 years duration, with no signs of toxicity. He was a known hypertensive, on treatment with amlodipine and lisinopril. Patient was scheduled for thyroidectomy but initial attempt at intubation failed twice and surgery was rescheduled. At the second attempt, equipment for difficult intubation were made available. He was induced with 200mg of propofol, 100mcg of fentanyl and Suxamethonium 100mg, patient was ramped into position, intubation was attempted with a Macintosh 4 laryngoscope but unsuccessful, this was changed to Miller 4

laryngoscope. Patient had a Cormack and Lehane grade 4. Using a gum elastic bougie, a 7mm armored tube was railroaded into the trachea and proper placement was confirmed by 5-point auscultation. Paracetamol and Acupan were used as analgesics, Paralysis with Atracurium, maintenance was with Halothane in Oxygen. The thyroid mass weighed 1kg. After surgery, muscle relaxant was reversed, vocal cords were moving and trachea central, therefore he was extubated awake after surgery.

**Conclusion:** Difficult intubation is almost a regular feature in huge thyroid mass management. Adequate tools and preparation from the anesthesiologist will help.

**NSA 02:**

## **CASE REPORT: ANAESTHETIC MANAGEMENT OF A PATIENT WITH NEUROFIBROMATOSIS AND AN ORBITAL TUMOR**

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### **Introduction:**

The Neurofibromatoses are a group of hereditary diseases transmitted in an autosomal dominant fashion and are characterized by a tendency to form tumours of ectoderm and mesoderm tissues. Although the Neurofibromatoses have common characteristics, two distinct forms have been recognized on clinical and genetic grounds, they are Neurofibromatosis type 1 (NF1) and type 2 (NF2). The commonest member of the group is neurofibromatosis type 1 (NF1) which varies in severity but can affect all physiological systems

**Case Presentation:** We report the anesthetic management of a 36 year-old woman with neurofibromatosis type 1 and with a diffuse intra-cranial tumour: bilateral temporal tumor with orbital extension, infra temporal and bi-parotid involvement. She had resection of the tumor located in the left occipital and infra-temporal region, an open maxillectomy initially and Parotidectomy. She presented with bilateral proptosis and

difficulty in breathing. Induction was with Thiopentone (4mg/kg) and muscle relaxation with Suxamethonium (1.5mg/kg). Intubation was carried out with a 7mm armored tube using a MAC 5 laryngoscope blade. Paracetamol and Acupan were used as analgesics, muscle paralysis was with Pancuronium and Anaesthesia maintained with TIVA using propofol and fentanyl. She was transfused with two pints of blood intra-operatively. There were two incidents of bradycardia which were resolved by stopping surgical manipulations. She was reversed and extubated awake after surgery and was admitted into the HDU for 3 days before transfer to the ward.

**Conclusion:** Neurofibromatosis is a rare pathology in surgical centers, which requires special attention from the anesthesiologist for a good outcome.

**NSA 03:**

**ACUTE POISONING IN A RESOURCE-RICH SETTING: ECHOES FROM ARABIA**

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**BACKGROUND:** Acute poisoning is a widespread emergency that mandates early management decisions for optimal outcomes.

**AIM:** To emphasise the role of appropriate facilities in the outcome of acute poisoning

**CASE PRESENTATION:** A 17 year old girl was brought to our emergency room(ER) with a history of reduced level of consciousness. She was said to have consumed some quantities of 'Khat' leaf (a common herbal stimulant among Arabs), Pregabalin, Alprazolam and Paracetamol prior to presentation. She was unconscious (GCS of 8/15), with pinpoint pupils and initial vital signs as follows: pulse rate 112/m, BP 90/50mmHg, RR 18/m, and temperature of 36.8°C.

She was given intravenous boluses of Naloxone and Flumazenil. Since there was no improvement in her level of consciousness, she was intubated and ventilated. Other medications given in ER included Activated charcoal, N-acetylcysteine, and sedation with fentanyl and propofol infusions. Furthermore, samples were obtained for ABG, routine labs and toxicology screen. In addition, chest x-ray and brain CT-scan were performed in ER before admission in ICU.

A central venous catheter and haemodialysis catheter were inserted in the ICU, and continuous renal replacement therapy and norepinephrine infusion were commenced. All her laboratory and radiological investigations including brain CT were normal, except for the drug toxicology screen which was positive for amphetamine and diphenhydramine. She was successfully extubated and transferred to the ward on the third day of ICU admission, and subsequently followed up by social workers, psychiatrists and psychologists.

**CONCLUSION:** Acute poisoning can be fatal, however, with early detection and appropriate facilities, morbidity and mortality rates could be reduced.

**NSA 04:**

**PAEDIATRIC DAY CASE ANAESTHESIA, ARE WE READY FOR IT?**

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**INTRODUCTION:** A successful perioperative course can be expected even for children in austere environments if the basic principles of anaesthesia are adhered to, coupled with a high level of surgical and anaesthesia skills. We assessed the feasibility of establishment of successful Paediatric ambulatory anaesthesia in our health facility.

**METHODOLOGY:** This prospective study involved children from the Paediatric surgical outpatient clinic scheduled for surgery during a 5-day free surgical outreach (between 15<sup>th</sup> to 19<sup>th</sup> August 2022). Full details of the perioperative anaesthesia care were documented as well as followed-up by telephone for seven days post-operatively. There was no unanticipated admission.

**RESULTS:** Out of 142 children shortlisted for surgery, 111(78%) were performed as day case. One case was cancelled on surgery day due to severe comorbidity. Almost all the cases were congenital urogenital abnormalities with Inguinoscrotal herniae/hydroceles being the highest indication for surgery ((83, 58 %). The anaesthesia techniques commonly employed was local anaesthetic infiltration with sedation (52, 36.6%), followed by general anaesthesia± caudal block (48, 33.8%), caudal block with sedation (10, 7%) and subarachnoid block (1, 0.7%). Perioperative complications encountered were minimal [laryngeal spasm (3), delayed awakening (2), postoperative nausea and vomiting (3), bradycardia (1), postoperative pain (3) and postoperative bleeding (1)]. No mortality nor morbidity was recorded during the seven – day postoperative telephone-call follow-up period.

**CONCLUSION:** Using appropriate screening tools, day-case Paediatric anaesthesia is feasible with minimal complications in our health facility. This should be encouraged outside the surgical outreach setting.

**Key words:** Free paediatric surgeries, Day case Anaesthesia

NSA 05

## ASSESSMENT OF THE INTEREST OF 5<sup>TH</sup> AND 6<sup>TH</sup> YEAR MEDICAL STUDENTS OF THE UNIVERSITY OF JOS IN ANAESTHESIA RESIDENCY TRAINING

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### BACKGROUND

Anaesthesia manpower in Nigeria is grossly inadequate. Fewer doctors apply for residency training in anaesthesia compared to other specialties.

### AIM

To determine the interest of senior medical students in anaesthesia residency

### MATERIALS AND METHODS

A simple questionnaire was administered between March and April 2018 to 5<sup>th</sup> and 6<sup>th</sup> year medical students of the University of Jos who had done postings in anaesthesia as part of their medical school curriculum. The questionnaire covered the biodata of respondents, duration of anaesthesia posting and areas of interest in residency training.

### RESULTS

Seventy-four 5<sup>th</sup> year and one hundred and nineteen 6<sup>th</sup> year medical students responded to the questionnaire (total of 193). None of the 5<sup>th</sup> year students indicated interest in anaesthesia training. Ten (8.4 %) of the 6<sup>th</sup> year students indicated interest in anaesthesia residency training.

Of the 193 students, only 10 (5.18 %) showed interest in Anaesthesia. The number of

students who showed interest in other specialties are as follows: Surgery – 50 (25.90%), Obstetrics/Gynaecology – 25(12.95%), Internal Medicine -24(12.43%), Paediatrics – 23(11.91%), Community Medicine – 27(13.98%), Others - 32(16.58%), Undecided – 2(1.03%).

## **CONCLUSION**

The results show an alarming trend in a system that already has inadequate number of physician anaesthetists.

A lot has to be done in advocacy and capacity building for anaesthesia training. It will be good to make teaching more interesting for medical students with the use of videos and simulation laboratories where students can have hands-on experience.

## **KEY WORDS**

Medical students, anaesthesia residency, interest in anaesthesia, anaesthesia specialisation.

## **NSA 06**

### **ANAESTHESIA AS A SPECIALTY OF CHOICE – THE VIEW OF HOUSE OFFICERS IN FEDERAL MEDICAL CENTRE, ABUJA**

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## **BACKGROUND**

Anaesthesia plays a major role in the provision of quality health care. However, it is one of the specialties least subscribed to by young doctors for training.

## **AIM**

To know the view of House officers about Anaesthesia as career choice.

## **MATERIALS AND METHODS**

A survey was conducted using a simple questionnaire administered to house officers in FMC Abuja in March 2022.

The questionnaire covered biodata, name of medical school attended, duration of anaesthesia posting, specialty of choice and perception of anaesthesia as a specialty.

## **RESULTS AND DISCUSSION**

Fifty one house officers responded. Eight (15.6%) were males and forty three (84.4%) were females. The age of the House officers ranged between 22yrs and 31yrs. The study group attended medical schools in different countries, namely; Nigeria – 21(41.1%), Ukraine – 9 (17.7%), Sudan - 9 (17.7%), others 12 (23.5%).

The duration of anaesthesia posting in their medical schools ranged from 2 weeks to 12 weeks.

Nine (17.7%) doctors indicated Anaesthesia as specialty choice. There was a wide spread across other specialties. Five(55.6%) of the Nine house officers who chose Anaesthesia had medical school postings of 6 weeks to 12 weeks duration .

Their perception of anaesthesia was good: a very relevant specialty that requires dedication and skill.

## **CONCLUSION**

The study showed a fair interest in anaesthesia as a specialty among house officers. The duration of anaesthesia posting and exposure of medical students to anaesthesia may play a role in stimulating their interest.

**KEY WORDS:** House officers, anaesthesia residency, perception of anaesthesia.



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## NSA 07

### PATIENT SAFETY CULTURE IN THE OPERATING ROOM: A CROSS-SECTIONAL STUDY USING THE HOSPITAL SURVEY ON PATIENT SAFETY CULTURE (HSOPSC) INSTRUMENT.

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**Background:** Patient outcomes are a critical consideration in healthcare. Credible evidence has established a link between the level of patient safety culture in healthcare environments and patient outcomes. Patient safety culture in the operating room has received scant attention despite the burden of adverse events among surgical patients. We aimed to evaluate the safety culture in our operating rooms and compare with

existing data from other operating room settings.

**Method:** We investigated the patient safety culture in the operating rooms of our hospital as perceived by the surgeons, nurse anaesthetists and perioperative nurses using the Hospital Survey on Patient Safety Culture (HSOPSC) instrument. IBM Statistical Package for Social Science software, version 25, was used for data entry and analysis. Differences were considered significant when  $p < 0.05$ .

**Results:** The overall average composite score was 47%. The average composite scores ranged from 17% to 79.6% across the 12 dimensions of the HSOPSC, with *teamwork within units* being the only dimension with demonstrable strength. *Non-punitive response to error, communication openness, feedback and communication about error*, *frequency of events reported*, *handoffs and transition* and *staffing* need improvement. The perceived safety culture varied according to work areas and professional roles with nurse anaesthetists having the highest perception and the surgeons the least.

**Conclusion:** With a low overall average composite score and as many as half of the composites requiring improvement our operating room safety culture could be adjudged to be weak. This is notwithstanding its comparative strengths relative to other operating room settings.

**Keywords:** Operating rooms, organizational culture, perception, safety management, surgery.

NSA08

## AWARENESS AND ACCEPTANCE OF LABOUR ANALGESIA BY PROSPECTIVE BENEFICIARIES IN THE BENUE STATE UNIVERSITY TEACHING HOSPITAL (BSUTH), MAKURDI, BENUE STATE, NIGERIA

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**BACKGROUND:** The pain of childbirth is severe. Pain of the first stage of labour is triggered by stretching of the mechanoreceptors. Pain of second stage of labour is caused by distension of the pelvic structures and perineum by the presenting part. Historically, there were various methods used to relieve labour pain. However, opposition to labour analgesia was rampant and still exists. Lumbar epidural block is presently the gold standard for intrapartum analgesia. This study was conducted to ascertain the level of awareness and acceptance of labour analgesia amongst pregnant women attending ante natal clinic.

**METHODOLOGY:** This study was conducted among pregnant women attending the ante natal clinic of the Benue State University Teaching Hospital Makurdi, via the use of questionnaires.

Doctors, nurses and students administered the questionnaires. The questionnaire contained demographics and other pertinent items. Data collected were analyzed using SPSS version 25 using simple statistics.

**RESULTS:** A total of 275 respondents were recruited. The age range, 25 to 29 years was the highest with an average of  $29.84 \pm 4.52$  years. Fifty-six per cent (156), had no awareness, and 213 (77.5%) would accept it. The commonest reason given for accepting was enjoying pain-free labour (67.1%), while the commonest reason for rejecting was that the natural process of labour should not be interfered with.

**CONCLUSION:** Awareness of labour analgesia here is low, while the level of acceptance is high. The more awareness they have, the more likely they would accept it.

**KEY WORDS:** Awareness; acceptance; labour; analgesia

## COMPETENCIES AND SKILLS OF PAEDIATRIC ANAESTHETISTS IN NIGERIA.

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### Background

Approximately 2.9 million children have surgically correctable conditions in Nigeria. The potential higher risk of perioperative morbidity and mortality in infants and neonates (compared to adults), and risk from complex paediatric surgeries, inform the need for dedicated paediatric anaesthetists and referrals to specialized centres.

**Objectives:** To determine the number of paediatric anaesthetists in Nigeria and their perceived skills and competencies in paediatric-specific procedures.

**Methodology:** An online questionnaire was administered to 255 members of the Nigerian Society of Anaesthetists (NSA) in 2021. **Results:** Twenty–six anaesthetists (10.2% of NSA members) from twenty-one (21) institutions responded and identified as paediatric anaesthetists. 15.4% of respondents had sub-specialist paediatric anaesthesia training for 6 months to 1 year.

88.5% of the respondents anaesthetised >15 children monthly, 38.5% >10 infants monthly and 42.3%, 2-5 neonates monthly.

Most of the respondents (92.4%) had both expert and high proficiency in neonatal and infant tracheal intubation. Only 3.8 % had expert proficiency with central venous cannulation, while 23.1% and 42.3% had never tried central venous and arterial cannulation respectively.

More respondents (42.3%) had expert proficiency in caudal epidurals compared to 11.5% for lumbar epidurals, 15.4% for subarachnoid block and 7.7% for peripheral nerve blocks.

Some (26.9%) respondents lack appropriate-sized/ paediatric-specific equipment, such as laryngoscopes, bougies, warmers, pulse oximeters, breathing circuits, stethoscopes, electrocardiogram electrodes and ventilators.

**Conclusion:** Gaps exist in the skills of paediatric anaesthetists in advanced vascular access and regional techniques. Improvement of care can be through short courses, point- ultrasound, well-structured post-residency training and provision of paediatric-specific equipment.

Key words: paediatric anaesthetists, Nigeria, competencies, anaesthesia skills gap

NSA 10

## ANTICIPATED AIRWAY DIFFICULTY VERSUS ACTUAL AIRWAY DIFFICULTY AMONG PAEDIATRIC PATIENTS SCHEDULED FOR CLEFT SURGERY.

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### Background

Airway management is an important step in paediatric anaesthesia and the inability to secure the airway can lead to rapid occurrence of hypoxia. Approximately 13% of perioperative respiratory problems in children are related to difficulties during intubation. The anatomical defects in cleft patients compound the problem of difficult airway and can increase morbidity and mortality.

This study compared the anticipated and actual airway difficulty among cleft patients.

## **Methodology**

Fifty two consecutive patients scheduled for elective cleft surgery over a period of 24 months were studied. Age <12 months with complete cleft lip and alveolus (CLA) or the presence of facial anomalies were used as predictors of difficult airway. The number of intubation attempts, use of intubation aids and Cormack and Lehane grading (CLG) were used to determine actual airway difficulty. The variables were analyzed in order to determine risk factors for difficult intubation.

## **Results**

The mean age of the children was  $40.9 \pm 6.4$  SEM. Fifteen (29%) were <12 months, of which 10(19%) had CLA, 2 of which also had facial anomalies. The anticipated airway difficulty was 23.1%.

The incidence of difficult tracheal intubation (intubation attempts of >3) was 11.5% (6 patients). Five (83.3%) of these children were aged < 12 months, 3(50%) presented with complete CLA, 2 (33.3%) had associated congenital facial anomalies and five (83.3%) had CLG  $\geq 3$ . All patients required use of intubation aids. No failed intubation was recorded. Age<12 months, complete CLA and CLG were found to be significantly associated with difficult intubation ( $p < 0.05$ ).

## **Conclusion:**

Airway difficulty can be predicted in children < 12 months old presenting with a complete cleft. Surgeries in these patients should be performed in hospitals where expertise and difficult airway equipments are available.

**Keywords;** difficult airway, paediatrics, cleft lip and alveolus

**NSA 11**

## A TEN-YEAR REVIEW OF PAEDIATRIC ANAESTHESIA PUBLICATIONS BY LOCAL RESEARCHERS

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**Background:** Paediatric anaesthesia is an important subspecialty in anaesthesia. The nature of the paediatric patient, their special needs and risk of anaesthesia exposure necessitates research to produce outcomes which will help to shape future interventions. However, there is a paucity of research in this field in Nigeria as there are limited specialists.

**Methods:** A Literature search of indexed journals was carried out on African Journal Online, Google Scholar and PubMed for original articles published by Nigerian researchers between 2012 and 2022. Phrases such as 'paediatric anaesthesia', 'perioperative', 'children anaesthesia', 'Nigeria', 'sub-Sahara' were deployed. A data extraction sheet was used to collect information, including type and location of study, age group, type of surgery and journal of publication.

**Result:** Forty publications matched our search. The age group studied ranged from 0-18years. Twenty-three studies (57.5%) were prospective, 17.5% retrospective and 5% each were case reports and systematic reviews. Twenty prospective studies (87%) were randomized control trials, 1 (4.3%) was an audit. while the remaining 2 (8.7%) were descriptive. More than 50% of the publications were done in the South West region. Fourteen studies (35%) were on ambulatory anaesthesia and 20% were on post-operative pain management. Twenty four studies (60%) were published in international journals, mostly African Journal of Anaesthesia and Intensive care (39%) with an H factor of 1. Two publications (5%) were listed in high ranking journals of 2022; namely Current opinion in Anesthesiology and Update in Anaesthesia with H factors of 75 and 10 and impact factors of 2.733 and 0.13 respectively.

**Conclusion:** There is a paucity of research on paediatric anaesthesia in Nigeria. More

research methodology and ethics training should be provided for researchers in paediatric anaesthesia and multi-centre studies should be encouraged. With the establishment of post-fellowship specialization, MD programmes in paediatric anaesthesia and a sub-specialization society, more research is expected from this area.

**Keywords; Paediatric Research, Nigeria**

**NSA 12**

**OUTCOME AND FACTORS ASSOCIATED WITH MORTALITY AMONG ADULT SEVERE TETANUS PATIENTS ADMITTED INTO THE ICU OF A TERTIARY HOSPITAL IN NORTHEAST NIGERIA: A RETROSPECTIVE STUDY**

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**INTRODUCTION:** Tetanus is a vaccine preventable disease characterized by generalized increased rigidity and convulsive spasms of skeletal muscles. It is caused by a *Clostridium tetani* a spore-forming bacterium that is widely distributed in soil. It is also found in the intestines and feces of animals such as horses, sheep, cattle, dogs, cats, rats and guinea pigs. Tetanus is a vaccine-preventable disease that remains a common cause of acute critical illness in low-income and middle-income countries (LMICs). It is estimated that the annual mortality of tetanus is around 200,000–300,000. The WHO targeted maternal and neonatal tetanus for elimination in



the year 2000, however; it is still a public health concern till date. Tetanus is however relatively rare in the developed world with neonatal tetanus completely eliminated.

**OBJECTIVE:** The objective of this study was to assess the outcome and factors associated mortality among adult severe tetanus patients admitted into the ICU of Abubakar Tafawa Balewa University Teaching Hospital, Bauchi, Nigeria West Africa, a low resource setting from 1<sup>st</sup> January 2019 to 25<sup>th</sup> February, 2022.

**METHODOLOGY:** The study is a retrospective cross-sectional study conducted at ATBUTH, Bauchi Nigeria on adult patients aged  $\geq 18$  years with severe tetanus admitted into the ICU from 1<sup>st</sup> January 2019 to 25<sup>th</sup> April, 2022. Data were collected using a structured questionnaire. Kaplan Meier survival analysis and univariate and a multivariate survival analysis using Cox's regression model were carried out to assess factors associated mortality among patients with severe tetanus.

**RESULTS:** A total of 14 severe tetanus patients were included in this study. Mortality rate was 71.4% (n=10) among the patients admitted into ICU. The average age of admitted patients was  $30.79 \pm 8.95$  years (SD). Majority of the patients were male (92.9%) and were farmers. All the patients were rural dwellers (100%). Survival analysis revealed that the probability of death was significantly higher among patients with incubation period  $< 14$  days, onset time of  $< 4$  days, and those who present with complication(s) such as aspiration pneumonitis, prolonged spasm, arrhythmias due to hyperactivity of autonomic nervous system, respiratory failure.

**CONCLUSION:** Tetanus is a vaccine preventable disease but it has remained a public health problem in developing countries mostly due to poor vaccine coverage, poverty and low levels of education.

All wounds other than clean minor ones should be considered tetanus prone therefore, HTIG should be considered. The diagnosis of tetanus is clinical and it can be fatal if missed. The mortality rate of tetanus is high and prolonged ICU care may be required.

The outcome depends on early diagnosis, identification and management of complications and a good supportive care which the patient receives.

## NSA 13

### A REVIEW OF BASIC LIFE SUPPORT/ CARDIOPULMONARY RESUSCITATION TRAINING IN NATIONAL HOSPITAL ABUJA (SEPTEMBER 2019 – JUNE 2022).

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**Background:** Basic Life Support (BLS) is a life-saving skill that everyone is encouraged to have; however, it is fundamental for all health workers to have this skill.

**Aim:** To review a series of BLS trainings held at National Hospital Abuja from September 2019 to June 2022.

**Methods:** Attendance registers of BLS trainings held by the Department of Anaesthesia, National Hospital Abuja from September 2019 to June 2022, were analysed. The forms contained names of participants, department, sign in, sign out, pre and post-test scores. Course evaluation forms were also analysed.

**Results:** A total of 204 health workers were trained during the period studied. Eighty-nine (43.6%) were doctors, 103 (50.5%) were nurses, 7 (3.4%) anesthesia technicians, 2 (1%) pharmacists, 2 (1%) hospital assistants and one (0.5%) clerical staff. Training methods were lectures and hands-on practice. 203 (99.5%) participants scored higher in post-test than pre-test. Evaluation forms revealed that participants wanted the training (and similar) to be held regularly and for AEDs to be widely available in the hospital.

**Conclusion:** BLS training by the Department of Anaesthesia, significantly improved knowledge of CPR by healthcare workers. The training also boosted the confidence of participants in performing CPR. Healthcare workers are eager to learn CPR and anaesthesia departments in our hospitals can provide this training. This will reduce the burden on anaesthetists during CPR and possibly lead to the creation of resuscitation teams.

**Keywords:** Basic life support, cardiopulmonary resuscitation, resuscitation skills, National Hospital Abuja, CPR training.

## NSA 14

### IS THE STANDARD CALCULATION OF DEPTH OF LUMBAR EPIDURAL SPACE APPLICABLE IN NIGERIAN CHILDREN? - A PILOT STUDY

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#### Background

Lumbar epidural provides an excellent method of intra and postoperative analgesia in children. The technique can present technical challenges due to wide variations in age, weight and body habitus among children. Incorrect placement of the epidural catheter can increase the risk of inadvertent dura puncture or vascular injection. The formula for calculation of depth of epidural space in children relies on weight as an independent factor. Anthropometric measurements in Nigerian children have been documented to be below standard for all age groups. As depth of epidural space is known to correlate with body habitus, it is important to investigate whether the accepted formula will be applicable in our children.

#### Methodology

This descriptive pilot study involved 10 children aged 1 – 10 years who had epidural sited as part of their anaesthetic technique. Under general anaesthesia, the epidural puncture was performed at L4/5 or L5/S1 interspace and the space identified by loss of resistance to saline. The epidural space was calculated by the formula, *Epidural depth = 1mm/kg body weight* in children aged 6 months to 10 years. At the point of epidural space identification, the Tuohy needle was marked. After removal of the Tuohy needle, the distance from the marking on the needle to the beginning of the aperture was measured using callipers. This was taken as the actual depth of the epidural space from the skin.

#### Results

The mean age was  $5.58 \pm 2.12$  years and the mean weight was  $18.1 \pm 4.5$  kg. The

mean height and BMI of the participants were  $1.10 \pm 0.117$  M and  $14.5 \pm 2.47$  kg/m<sup>2</sup> respectively. The epidural was sited at L4/5 in 40% and at L5/S1 in 60% of the participants, participants had actual depth of epidural space less than the calculated, however, the means did not differ significantly; calculated epidural space was  $1.82 \pm 0.47$ cm, and actual epidural space was  $1.61 \pm 0.26$ cm ( $p = 0.28$ ). The mean difference between the calculated and actual epidural space was 0.19. Though the means were not significantly different, this mean difference may be of clinical relevance especially with younger children.

### **Conclusion**

The predetermined formula for calculation of lumbar epidural space may be applicable in Nigerian children, caution should be taken as majority may be less than calculated.

However, a larger sample size still needs to be investigated.

**Keywords:** Depth of epidural space, Paediatrics

### **NSA 15**

## **PAEDIATRIC ANAESTHESIA SOCIETY OF NIGERIA (PASoN) – “The birth of a new Society”**

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### **Abstract**

43.5% of Nigeria’s population is under 15 years. With an extrapolated 3.52% prevalence

rate of surgical correctable conditions, the burden of Paediatric Surgery and Anaesthesia in Nigeria is high. Nigeria has a Paediatric Surgeon: Paediatric Anaesthetist ratio of 5:1. There is an acute shortage of Paediatric anaesthesia manpower with a density of 0.028 Paediatric Anaesthetists per 100,000 children < 15 years.

There are very few trained Paediatric Anaesthetists with training periods ranging from 6 months to 1 year. However, numerous procedures are safely performed by other Anaesthetists with vast experience in Paediatric Anaesthesia. Recently more training options in Paediatric Anaesthesia sub-specialisation have arisen from the Postgraduate colleges. There was however no forum for integration and development of guidelines and protocols to guide and regulate the practice of Paediatric Anaesthesia.

The Paediatric Anaesthesia Society of Nigeria (PASoN) was established as a forum where all Paediatric Anaesthetists via training, experience or interest could come together with the aim of fostering standard and safe perioperative care for all our children irrespective of location of practice.

This presentation will highlight the vision and mission of PASoN and how it intends to improve Paediatric Anaesthesia care in the short and long term through training, short-courses, research and collaboration.

## **NSA 16**

### **USE OF VIDEOLARYNGOSCOPE IN AVERTING FAILED INTUBATION WITH A CONVENTIONAL LARYNGOSCOPE IN AN INFANT WITH CYSTIC HYGROMA -CASE REPORT.**

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## **INTRODUCTION**

The introduction of commercial video laryngoscopes (VL), have resulted in a paradigm

shift in the management of difficult airway. They improve the laryngeal view and success rate of tracheal intubation and have now become a first backup technique after failed intubation attempts. We report the successful intubation using a VL in an infant with difficult airway and an intra-oral mass.

## **SUMMARY**

A 35-day old term female infant, product of spontaneous vaginal delivery weighing 2 kg, presented at the Emergency Paediatric unit on account of progressive left sided neck and facial swelling since birth and poor weight gain over 2 weeks duration. She developed symptoms and signs of upper airway obstruction a day prior to presentation which worsened while lying on the right side. There was no nasal discharge or blockage, no choking or bluish discoloration of the skin or mucous membrane while feeding. On examination she was in respiratory distress with a mass on the left side of the neck extending towards left mandible and face, with intraoral masses.

A provisional diagnosis of Cystic hygroma with compressive symptoms was made. ASA IVE risk assessment was assigned with anticipated difficult intubation.

An emergency excisional biopsy on account of imminent airway obstruction was scheduled under general anaesthesia. Attempt at intubation using conventional laryngoscope under deep inhalational induction with sevoflurane failed as the larynx could not be visualised. The tracheal was successfully intubated on the 2nd attempt with an uncuffed size 2 mm ETT using a video-laryngoscope. Surgery lasted about 3 hr 50 min and she was successfully extubated and transferred to the recovery room with PACU score of 9/10. She was transported to the paediatric surgical ward on supplemental O<sub>2</sub> via nasal prongs after 1 hour.

**CONCLUSION:** The introduction of VLs in Anaesthesia practice in Nigeria will result in dramatic improvement in the management of difficult endotracheal intubation as demonstrated in this case report.

NSA 17

**TITLE: THE EFFECT OF TRAMADOL INFILTRATION ON POST TONSILLECTOMY PAIN IN CHILDREN**

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**Background:** Tonsillectomy, the surgical removal of the tonsils, is the second most common out-patient surgery for children younger than age 15. Pain is the primary source of illness following a tonsillectomy, causing dehydration, difficulty and painful swallowing, and weight loss.

**Objective:** To determine the analgesic effect of tramadol infiltration of the tonsillar bed after tonsillectomy.

**Methodology:** This prospective, randomized, double blind study was conducted at the University of Benin Teaching Hospital, Benin City, Nigeria. Following Institutional Research and Ethics Committee approval and informed parental consent, 70 ASA I children scheduled for elective tonsillectomy were recruited and randomized into two groups. After the removal of the tonsils, Group 'S' patients received peritonsillar infiltration with 3 ml of normal saline only at 1.5 ml per tonsil and Group 'T' patients received peritonsillar infiltration with 2 mg/Kg tramadol made up to 3 ml at 1.5 ml per tonsil. Postoperative pain was assessed using the Objective Pain Scale (OPS).

**Results:** Sixty-six patients completed the study. The mean time to first analgesic requirement in minutes was significantly longer in group 'T' compared with group "S" ( $282.00 \pm 86.49$  vs.  $76.78 \pm 45.14$ ,  $P = 0.001$ ). The postoperative Objective Pain Scale (OPS) scores recorded for patients in group 'T' were significantly

lower than those in group 'S' at 30 min, 1 hr and 2 hr intervals ( $1.47 \pm 1.44$  vs.  $4.34 \pm 1.83$ ,  $P = 0.001$ ).

**Conclusion:** This study showed that post-tonsillectomy infiltration of tramadol reduced immediate postoperative pain in children compared with placebo.

## NSA 18

**"SEDATION AND ANALGESIC REQUIREMENTS IN THE ICU: A RANDOMIZED CONTROL STUDY COMPARING INTRACUFF ALKALINIZED LIGNOCAINE TO INTRACUFF AIR IN MECHANICALLY VENTILATED TRAUMA PATIENTS".**

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**BACKGROUND:** The endotracheal tube causes significant discomfort and pain in many mechanically ventilated patients. Irritation by the cuff increases secretions, bucking, coughing, and negatively affects patients' haemodynamics. Alkalinized intracuff lignocaine has been shown to reduce these complications and reduce total analgesic requirements in intensive care patients.

**AIM:** To assess the effect of intracuff alkalinized Lignocaine against intracuff air on the sedative and analgesic requirements of mechanically ventilated trauma patients.

**METHODOLOGY:** In a randomized, double-blind study conducted at the National Hospital Abuja's trauma critical care unit following ethical clearance obtained from the Research and Ethics committee of the Hospital. Sixty trauma patients requiring ventilator assistance were grouped into: Group A (intervention group) having Intracuff alkalinized Lignocaine (2% plain Lignocaine + 1.4% Sodium bicarbonate) and Group B (Control group) had air injected into the cuff of the endotracheal tube (ETT). Sedation was maintained with midazolam and fentanyl infusion and the total dosage delivered. The proportion of patients with a 25% decrease in total Midazolam and Fentanyl doses



over the 24 hours was determined.

**RESULTS:** There was a significant reduction (about 80%) in the proportion of overall midazolam and fentanyl requirements in the alkalinized lignocaine group, compared to control (39%). Patients in Group A received an average total Fentanyl dose of 0.351mcg/kg/hr, whereas patients in Group B received an average total Fentanyl dose of 0.503mcg/kg/hr ( $p=0.0001$ ). Similarly, the mean total Midazolam intake was 0.032mg/kg/hr in Group A, compared to 0.043mg/kg/hr in Group B ( $p = 0.001$ ).

**CONCLUSION:** Intracuff alkalinized lignocaine decreases the sedative and analgesic requirements of intubated trauma patients and also improves the tolerability of endotracheal tubes

**Keywords:** Intracuff alkalinized lignocaine; Trauma; Sedatives; Analgesics; Mechanical ventilation

## NSA 19

**TITLE: EFFICACY OF CAUDAL S(+)-KETAMINE WITH BUPIVACAINE AND CAUDAL BUPIVACAINE ALONE FOR HERNIOTOMY.**

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Caudal anaesthesia is the most frequently used regional technique for subumbilical procedure in children. However, most children who had subumbilical operations with caudal bupivacaine anaesthesia required analgesia during postoperative period.

This study compared the quality of caudal analgesia in children scheduled for unilateral herniotomy using

a combination of caudal preservative-free S (+)-ketamine and plain bupivacaine and caudal bupivacaine alone.

The institution's Ethics Committee approval and parents/Guardian consent were obtained, 66 children aged 2 to 6 years scheduled for unilateral herniotomy were randomised into two groups . Baseline haemodynamic parameters were obtained and anaesthesia was induced with halothane in 100% oxygen. Plain bupivacaine (0.5ml/kg of 0.25%) with or without 0.25mg/kg preservative-free S(+) ketamine was administered for caudal anaesthesia in group 2 or group 1 respectively. Anaesthesia was maintained with halothane 0.5 to 1.5% in 100% oxygen and the caudal block with patients breathing spontaneously. Intraoperative haemodynamic parameters were monitored. Postoperative pain was assessed for 6 hours using the Objective Pain Scale. The primary outcome was the proportion of pain-free patients at the pain assessment intervals.

There was no difference in the proportion of pain-free patients in both groups in the first 180 minutes (3 hours) observation period. The time to first analgesic requirement was 240.24±75.52 minutes in group 1 and 300.70±99.66 minutes in group 2 and the difference was statistically significant ( $p < 0.0001$ )

The study demonstrated an improved quality and prolongation of postoperative analgesia for herniotomy with a combination of 0.25% plain bupivacaine and 0.25 mg/kg S(+)-ketamine

## **NSA 20**

### **EASY TO PREVENT, COSTLY TO TREAT: A CASE REPORT ON SEVERE TETANUS IN A RESOURCE RICH ENVIRONMENT.**

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## **INTRODUCTION:**

Tetanus is a neurological disorder caused by the exotoxin of Clostridium Tetani. With a worldwide distribution it is a public health concern with widespread vaccination campaigns. Severe Tetanus is treated in the Intensive Care Unit with better facilities available in wealthier nations than others. We present a case of severe Tetanus in Saudi Arabia with a good outcome.

## **CASE REPORT:**

A young adult Male patient had a foot injury and after a fairly long latent period developed Severe Tetanus. He spent a long time in the Intensive Care Unit. A lot of interventions, and resources were utilized for his treatment as well as the complications that arose.

He was intubated and ventilated for a long period and was on high doses of sedatives, muscle relaxants and vasopressors. Prolonged Ileus led to the institution of Total parenteral Nutrition, Cardiac arrhythmias were treated with appropriate medication and the development of severe Ventilator Associated Pneumonia had to be treated with Colistimethate, a reserve Antimicrobial agent. A tracheostomy was carried out. Against all odds, he made a full recovery. Limb Physiotherapy and Speech therapy were also utilized for him.

He was discharged home and ironically had features of yet another vaccine preventable ailment at his one month follow up Clinic visit.

**CONCLUSION:** Tetanus, a vaccine preventable illness, carries the burden of high clinical morbidity and risk of death. Treatment is quite costly as seen in this case.

Despite all efforts there are still those who are not properly vaccinated with resultant strain on the healthcare system.

**NSA 21**

**A SNAPSHOT OF ADVANCED AIRWAY MANAGEMENT PRACTICE IN NIGERIA**

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## **BACKGROUND:**

There is still a dearth of equipment, trained personnel and training opportunities in advanced airway management in Nigeria.<sup>1,2</sup>

## **AIM:**

To assess the advanced airway practice in hospitals in Nigeria.

## **METHODOLOGY:**

The Society for Airway Management Nigeria Chapter (SAMN) sent a Google form to attendees of an update course organized by the Faculties of Anaesthesia of the NPMCN and WACS, from July-August 2022. The survey form was also sent to SAMN members.

Questions were on advanced airway equipment, skills and training of respondents.

## **RESULTS**

All fifty respondents have video laryngoscopes in their hospitals, only 21 (42%) have fiberoptic bronchoscope.

About half (52%) of respondents are very confident with using a supraglottic airway device, 11 (22%) respondents are very confident using video laryngoscopes, 2 (4%) are very confident in the use of fiberoptic bronchoscope and 12 (24%) are confident in attempting a front of neck access.

Up to 15 (30%) respondents are unaware of airway management training opportunities, and 20 (40%) have never attended any airway workshop. However, 96% are willing to

attend. Factors hindering participants from such trainings include busy schedule (66%), lack of funds (60%), lack of training opportunities (44%), and lack of institutional support (44%).

## CONCLUSION

There is low access to advanced airway equipment and low level of competence in their use by Nigerian anaesthetists. The awareness and attendance of airway management workshops is very low, however, there is high level of willingness to attend them.

The Society for Airway Management in Nigeria can help bridge these gaps.

## KEY WORDS:

Advanced airway management, Nigeria, airway equipment, Front of Neck Access, airway management training

## NSA 22

### CAUDAL EPIDURAL BLOCK FOR POSTOPERATIVE ANALGESIA IN PAEDIATRIC PATIENTS: REVIEW OF PRACTICE

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**Background:** Perioperative analgesia in paediatric patients is often inadequate due to irregular pain assessment and the fear of opiate administration in children. Caudal blocks are an efficient way of providing perioperative analgesia for subumbilical surgical procedures. It enables early recovery and ambulation, haemodynamic stability, preservation of spontaneous breathing and reduced need for airway instrumentation.

**Objective:** To determine the practice and safety of caudal epidural analgesia in paediatric patients at the UCH Ibadan.

**Methodology:** The anaesthetic and PACU records of children scheduled for

subumbilical surgical procedures with caudal blocks between October 2021 and September 2022 were retrieved. All patients had a caudal block in the left lateral decubitus position after inhalational induction with halothane. Premixed 0.125% plain bupivacaine (1mg/kg) and dexamethasone 0.1mg/kg were administered to establish the block. Demographic data, type of surgery, pain assessment in PACU and post-operative complications were documented.

**Results:** A total of 801 paediatric patients were operated, of which 37{10.8%} had caudal epidural block and formed the study group. The mean age of the patients was 5.86.

Twenty –five children {67.6%} had herniotomies/orchidopexy, 8 (21.6%) hypospadias repair, 3{8.1%} transanal pull through and rectal biopsies and 1{2.7%} had umbilical hernia repair.

Twenty-two {59.5%} were daycase procedures and 15{40.5%} were in-patients.

Post-operatively, pain assessment by the nurses was rated zero for all patients during their stay in PACU. None of the patients had urinary retention at the time of discharge from PACU

**.Conclusion:** Children who had subumbilical surgical procedures under caudal block with 0.125%plain bupivacaine and 0.1mg/kg dexamethasone had good post-operative analgesia with no complications. Caudal block in children is suitable for daycase and in-patient subumbilical surgical procedures.

**Keywords:** paediatric, perioperative analgesia, caudal block, landmark technique.

## NSA 23

### ANAESTHESIA FOR A PATIENT WITH CARDIAC PACEMAKER FOR AN ELECTIVE HEMI-COLECTOMY IN A RESOURCE POOR SETTING: A CASE REPORT

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**Background and aim:** Practicing anaesthesia in a resource poor setting like ours is a daunting task. The administration of anaesthesia for a non-cardiac surgery in a patient with cardiac pacemaker is challenging according to the practice advisory of the American Society of Anesthesiologists (ASA) Task Force on perioperative management of patients with cardiac implantable electronic devices.

We aim to highlight how we successfully administered anaesthesia for a non-cardiac surgery in a patient with cardiac pacemaker.

### Case presentation

The index case was a 45-year-old male, ASA physical status III, who had an elective right hemi-colectomy under general anaesthesia (GA) with endotracheal intubation and muscle relaxation. Patient had a hypertensive heart disease, dilated cardiomyopathy and left ventricular systolic and restrictive diastolic dysfunction for three years. He was managed with oral antihypertensives (ramipril and bisoprolol) and had a permanent dual chamber pacemaker which was inserted 6 months before surgery but was unable to maintain follow up due to financial constraint. Information card detailing the type of device, model number, the indication for insertion and settings were not available.

Anaesthesia was induced with propofol and maintained with isoflurane. Intraoperative monitoring included pulse oximetry, non-invasive blood pressure (NIBP) and electrocardiography. Surgery was successfully performed without electromagnetic interference and pacemaker was not reprogrammed/ resynchronized. No critical incident was recorded and recovery period was uneventful. He was discharged on the 12<sup>th</sup> post-operative day.

**Conclusion:** We were able to successfully conduct anaesthesia for major non-cardiac surgery in a patient with cardiac pacemaker despite the lack of adequate monitoring equipment.

**Key word:** Anaesthesia, cardiac, hemi-colectomy, pacemaker, surgery

NSA 24

## **ANAESTHESIA FOR GLOSSOPLASTY AND VENTRAL WALL DEFECT REPAIR IN A TODDLER WITH BECKWITH WIEDEMANN SYNDROME: A CASE REPORT**

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**Background:** Beckwith Wiedemann syndrome (BWS) is a rare growth disorder and one of its common features is macroglossia which can make airway management challenging during anaesthesia.

**Case report:** A 15month old, 10kg female with BWS scheduled for glossoplasty and ventral wall defect repair on account of macroglossia and omphalocele. Born at term via vaginal delivery, birth weight of 3.5kg. Clinical diagnosis of BWS was made postnatally due to presence of macroglossia, omphalocele, transient hypoglycemia. No associated cardiac abnormality.

On review, she was a female toddler with glossoptosis, not pale, anicteric, acyanosed, drooling saliva. Airway assessment revealed a large tongue and Mallampati score of IV. Renal and liver function tests were normal.

Preparation was made for difficult intubation - bougie, supraglottic airway devices, masks, various laryngoscope blades, small size tracheal tubes and Consultant Anaesthetist present. In theatre, she was premedicated with glycopyrrolate and inhalational induction was done using sevoflurane. Laryngoscopy and nasotracheal intubation were achieved on second attempt. Correct placement of tracheal tube was confirmed by auscultation and capnography; the oropharynx was packed with gauze. 5% Dextrose in Ringer's Lactate was used as maintenance fluid and blood glucose was monitored.

Surgery lasted 3hours 27minutes. Reduction glossoplasty and pure tissue repair of ventral hernia were carried out with minimal blood loss. Postoperatively, she was extubated in theatre and was stable in the recovery room and subsequently in the ward.



**Conclusion:** Anaesthesia in a patient with Beckwith Wiedemann syndrome has to be carefully planned, administered and tailored to the patient.

**Key words:** Beckwith Wiedemann syndrome, glossoplasty, ventral wall repair, difficult airway, macroglossia

**NSA 25**

**MANAGEMENT OF SEVERE SEPSIS WITH A COMBINATION OF IMIPENEM-CILASTATIN AND ULINASTATIN IN A PATIENT WITH MULTIPLE ORGAN DYSFUNCTIONS FOLLOWING POSTOPERATIVE INFECTION: A CASE REPORT**

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**Introduction:** Sepsis is a life threatening organ dysfunction that results from the body's response to infection. Sepsis exists on a continuum of severity that ranges from infection and bacteraemia to sepsis and septic shock which can lead to multiple organ dysfunctions and eventually results in death if not aggressively, appropriately and timely managed.

The management of sepsis in our environment has not been standardized compared to developed nations. Again, poor and defective chains of drug procurement by unlicensed vendors promote the importation of fake and substandard drugs into the country. Treatment of infections with inappropriate or sub-standard drugs leads to poor patient outcome.

The aim of this case report is to show that the combination of Imipenem-cilastatin which belongs to the class of Carbapenem, and Ulinastatin has a very good outcome in the management of severe sepsis following postoperative bilateral knee replacement surgery.

**Case report:** The index patient is a 70 year old obese woman that had bilateral total knee replacement and subsequently developed postoperative surgical wound infection that resulted to sepsis and septic shock with multiple organ dysfunctions. She was referred to our centre for critical care management and dialysis. She came in with a GCS of 10. She was placed on Imipenem-cilastatin (Ranbaxy) 1gram 12 hourly, Ulinastatin 100,000 I.U 12 hourly, vasopressors and an anti-thrombotic agent. Electrolyte derangement was managed with intravenous fluids and potassium infusion. She was also managed on non-invasive ventilation. The patient regained consciousness after 72 hours on treatment. Patient was discharged home from the intensive care unit after 20 days of admission.

**Conclusion:** Imipenem-cilastatin and ulinastatin is a very good combination in the management of severe sepsis following postoperative infection after bilateral total knee replacement.

**Keywords:** Severe sepsis, bilateral total knee replacement, imipenem-cilastatin, ulinastatin, intensive care unit

## NSA 26

### TRACHEAL TUBE CUFF PRESSURE IN INTUBATED PATIENTS UNDERGOING GENERAL ANAESTHESIA: A PROSPECTIVE OBSERVATIONAL STUDY.

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**Background:** Airway management has been bedeviled by poor regulation of the tracheal cuff pressure in the operating rooms and intensive care units, resulting in patient harm. This widespread malpractice derives from the conventional use of pilot balloon palpation and other estimation methods to regulate tracheal cuff pressure rather than a

manometer. We aimed to determine whether the tracheal cuff pressure maintained by our routine practice of subjective estimation were within the recommended range of 20-30cm cm H<sub>2</sub>O.

**Methods:** We conducted a prospective observational study on One hundred and forty one (141) consenting, consecutive patients undergoing general anaesthesia with endotracheal intubation. A bourdon gauge- type aneroid manometer (Posey Cufflator) was used for objective determination of the cuff pressure. IBM Statistical Package for Social Science software, version 25, was used for data entry and analysis. Differences were considered significant when  $p < 0.05$ .

**Results:** The 'Pilot balloon palpation method' was mostly used for tracheal cuff management (134/141; 95%). The observed cuff pressure ranged from 5 cm H<sub>2</sub>O to  $\geq 120$  cm H<sub>2</sub>O, with a mean of  $77.1 \pm 31.1$  cm H<sub>2</sub>O. The cuff pressure was within the recommended level in only 6% (9/141) of patients. All the tracheal cuff inflation by consultant and resident anaesthesiologists were outside the recommended limits. Neither the professional status, the work experience of the healthcare provider nor the technique of estimation was associated with proper tracheal cuff estimation.

**Conclusion:** Tracheal cuff management by subjective estimation was highly inaccurate and unreliable, irrespective of the anaesthesia provider.

**Keywords:** Airway management, anaesthesia, complications, endotracheal intubation, intensive care unit.

## **NSA 27**

### **EFFECTS OF INTRAVENOUS DEXAMETHASONE ON THE DURATION OF EPIDURAL LABOUR ANALGESIA WITH BUPIVACAINE AND FENTANYL**

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**Background:** Epidural provides superior analgesia to the parturient with little or no side effects to the foetus. The use of adjuncts with bupivacaine allows small dose of local anaesthetic to be used and thus minimizes its adverse effects.

**Aim:** The study evaluated the effects of single dose intravenous 8mg dexamethasone on the onset of block and duration of epidural labour analgesia using 0.125mg bupivacaine and 2µg/ml of fentanyl.

**Materials and methods:** Following the institution's ethical approval, fifty-six pregnant women that met the inclusion criteria were assigned randomly into two study groups (A and B) with 28 parturients per group. Group A and B received IV infusion of 8mg dexamethasone in 50ml of normal saline and 50ml of normal saline respectively, 30 minutes before catheter-based epidural labour analgesia was established. All participating parturients received an initial epidural bolus dose of 10ml of 0.125% of plain bupivacaine pre-mixed with 20µg of fentanyl. All received background infusion, at a rate of 5ml/hour and a demand bolus of 5ml of the same concentration if required, with a lockout interval of 30 minutes. Labour pain intensity was assessed with visual analogue scale and time to first analgesia request and onset time of analgesia determined. A p value <0.05 was considered statistically significant.

**Results:** There was prolonged but not statically significant time interval between the onset of analgesia, and time to first request of analgesia in group A compared to group B (166.25±89.944 vs 158.46±63.930), p=0.710, CI= -34.024 to 49.596.

**Conclusion:** The administration of 8mg of dexamethasone intravenously during labour epidural analgesia, prolonged the duration of analgesia and maintained good maternal haemodynamics with no adverse neonatal outcome.

**Key words:** Labour pain, Epidural analgesia, Bupivacaine, Fentanyl, Dexamethasone.

## NSA 28

### COMPARATIVE ANALGESIC EFFICACY AND SAFETY OF EPIDURAL PLAIN BUPIVACAINE 0.5 % ALONE AND EPIDURAL PLAIN BUPIVACAINE 0.5 % WITH TRAMADOL AS AN ADDITIVE IN LOWER LIMB ORTHOPAEDIC SURGERIES

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**BACKGROUND:** Epidural anaesthesia implies the deposition of a local anaesthetic agent with or without an additive into the epidural space which results in autonomic, sensory and motor nerve blockade. Tramadol, a centrally acting opioid-like drug with analgesic effects and fewer side-effects than the typical opioids, has been administered through various routes including the epidural route. Pain control remains the key for peri-operative orthopaedic surgical patient care.

**AIM:** This study was aimed at comparing the analgesic efficacy and safety of epidural plain bupivacaine 0.5 % alone and epidural plain bupivacaine 0.5 % with tramadol as an additive in lower limb orthopaedic surgeries.

**METHODOLOGY:** This is a prospective randomized double blind controlled study involving seventy four ASA I and II patients scheduled for elective lower limb orthopaedic surgeries. The patients were randomized into two groups. Group A (n=37) received 19 ml of 0.5% plain bupivacaine with 1 ml of sterile water epidurally at L3-L4 inter-space, while group B received 19mls of 0.5% plain bupivacaine with 1ml (50mg) of tramadol at L3-L4 epidurally.

**RESULTS:** Results showed that the mean onset time of sensory block was  $37.03 \pm 3.43$  min and  $24.32 \pm 3.76$  min in group A and B respectively, with statistically significant difference ( $P < 0.01$ ). The mean duration of analgesia was  $189.05 \pm 21.92$  min and  $254.19 \pm 32.78$  min in groups A and B respectively, with a P- value of  $<0.01$ .

The common side effects observed were bradycardia, hypotension, nausea and vomiting. However, the incidence was not statistically different between the two groups.

**CONCLUSION:** The addition of 50mg (1ml) of tramadol to plain bupivacaine for epidural analgesia prolonged the duration of analgesia when compared to bupivacaine alone.

**Keynoted:** Epidural, Bupivacaine, Tramadol and Analgesia.

NSA 29

## MATERNAL MORTALITY SECONDARY TO PHEOCHROMOCYTOMA IN A PRIMIGRAVIDA WITH KNOWN NEUROFIBROMATOSIS

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Neurofibromatosis is a rare inherited disease that causes tumours to develop on nerves. It consists of several subtypes, with neurofibromatosis type 1 (NF1) being the most common. NF1 is mainly characterised by the formation of mesodermal and ectodermal tumours, specifically neurofibromas. In addition to the neurofibromas, other tumours such as pheochromocytoma occur more commonly in NF1 patients than in the general population. Pheochromocytoma affects between 0.1–5.7% of patients with NF1, and poses significant risks to undiagnosed patients, with dire consequences in pregnant women.

Here, we present the case of a 36-year-old primigravida with a known history of neurofibromatosis with no known complications other than history of an uneventful excision of a spinal lesion 11 years ago. She had presented with a missed miscarriage at 9 weeks and opted for surgical management. She had an evacuation of the uterus procedure performed as a day case, and was discharged home. However, she re-presented to the A&E within 24 hours with symptoms of chest pain and shortness of breath. Despite adequate resuscitation attempts, she rapidly deteriorated and subsequently passed away. Post mortem results revealed cause of death to be an invasive pheochromocytoma. This is a unique case of a rare pathology in an asymptomatic patient with unfortunately fatal consequences following a simple surgical procedure.

## NSA 30

### GENERAL ANAESTHESIA VERSUS LOCAL ANAESTHESIA FOR DRAINAGE OF CHRONIC SUBDURAL HAEMATOMA. A RANDOMIZED RETROSPECTIVE CONTROLLED STUDY

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Chronic Subdural haematoma (CSDH) is an encapsulated collection of old blood or breakdown of blood products, which can be partially or completely liquefied and located between the Dura and the arachnoid mater present, for at least three weeks or more.

Management of CSDH is usually surgical using Burr hole craniotomy which is usually the gold standard. It can be done either through Local Anaesthesia or General Anaesthesia.

Our aim of undertaking this study was to compare the advantage of General Anaesthesia versus local anaesthetic techniques in the management of CSDH

Our method was to retrospectively collect all the patients data that went for Burr hole craniotomies in our hospital from January 2017 to July 2022. Data was analyzed using SPSS version 25 for Windows. The Fisher exact test was performed to compare the 2 treatment groups.

## RESULT

A total of 400 patients had Burr hole surgeries within the period under study but only 370 were analyzed because there was incomplete information for the rest. The Male to Female ratio was 5.6: 1. The mean age was 59 years which is slightly lower than findings in other studies. This may be due to the lower life expectancy in our environment. We also noticed that more of the surgeries were done with local Anaesthesia on patients that had GCS of lower than 9 and also those that had GCS of more than 13. We also noticed from the records that most patient who had their surgeries under Local Anaesthesia when compared with General anaesthesia had a shorter duration of stay in the hospital before their discharge and also had lower complication rate.

Conclusion: Local Anaesthesia for the management of CSDH is comparatively safer and better than General anaesthesia especially on Patients that had a GCS of lower than 9 and also for patient that had a GCS of more than 13. Also they had shorter hospital stay, lower cost, and lower complication rate.

Key words: Chronic Subdural Haematoma , Craniotomy , Local Anaesthesia, General

Anaesthesia.

## NSA 31

### A SURVEY OF MEDICATION ERRORS IN PAEDIATRIC ANAESTHESIA PRACTICE IN NIGERIA.

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**Background:** Anaesthesia medication error has the potential to cause harm and can occur at any stage in the process of drug administration.

**Aim:** To evaluate the incidence and pattern of medication error (ME) during anaesthesia and sedation in children.

**Methodology:** A Google survey form shared amongst members of the Nigerian Society of Anaesthetists (NSA) via Whatsapp from 25<sup>th</sup>-31<sup>st</sup> October, 2022 was completed anonymously. The study was restricted to respondents who anaesthetised or sedated at least one child weekly in the last 6 months.

**Results:** One hundred and forty-two anaesthesiologists responded. Most (88.7%) were from government tertiary care institutions. About half (52.1%) were resident doctors, 44.4% were consultants/Fellows and 3.5% were diplomates.

Over a third (36.6%) of respondents observed ME in their practice, 14.8% reported ME of once a week. The most common MEs reported were over dilution (15.5%) and over dosing (15.5%). Seven (4.9%) respondents reported serious/ life-threatening errors. One (0.7%) respondent stated that error led to mortality and five (3.5%) reported that error caused morbidity.

MEs were cited to most commonly occur during a critical event (51.4%), during an emergency procedure (50%) and at induction and airway control (36.6%). Top reasons



for ME were failure to weigh the child (77.9%), haste/ insufficient preparation (69%), fatigue (62%), anaesthetist's inexperience (54.2%) and poor team communication (47.9%). Weighing of children, proper labelling and dilution of drugs and good team communication were some suggestions to prevent ME.

**Conclusion:** Medication errors occur commonly in paediatric anaesthesia practice, addressing the causes may help reduce incidents.

**Key Words:** medication error, paediatric anaesthesia, drug safety, drug dosing, medication safety

NSA 32

## THE EFFECTS OF INTROPERATIVE LIDOCAINE INFUSION ON POSTOPERATIVE PAIN AND MORPHINE CONSUMPTION FOLLOWING GYNAECOLOGICAL SURGERIES UNDER GENERAL ANAESTHESIA

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**Background:** Multimodal forms of analgesia significantly reduce requirement of opioids for pain management. Despite its local anaesthetic effects, lidocaine infusion improves postoperative pain and morphine consumption following major gynaecological surgeries.

**Aim:** The study evaluated the effect of intraoperative intravenous lidocaine bolus at induction and via infusion from the onset of surgery till the end of the surgery, on postoperative pain intensity and morphine consumption following major gynaecological surgeries under general anaesthesia.

**Materials and methods:** Following the institutions ethical approval, 60 patients that met the inclusion criteria were assigned randomly into two (2) groups (A and B) with 30 patients per group. Group A received intravenous (IV) lidocaine 1.5mg/kg at induction via a bolus injection and 1.5mg/kg/hr in normal saline infusion from onset of surgery to

the end of surgery, while the control group (Group B) received equal volume of normal saline at the same timelines. Pain scores were assessed postoperatively using the numerical rating scale and the cumulative morphine consumed postoperatively were also measured. A P-value <0.005 was considered statistically significant.

**Results:** The mean pain scores were significantly higher in the Saline Group than in the Lidocaine group. The cumulative morphine consumption after 48hours was significantly reduced in the study group  $4.87 \pm 1.80\text{mg}$  vs  $14.13 \pm 4.10\text{mg}$  ( $P < 0.0001$ ).

**Conclusion:** The administration of a bolus dose (1.5mg/kg) of intravenous lidocaine at induction and a continuous intravenous infusion of 1.5mg/kg/hr from onset of surgery till skin closure reduced the postoperative pain intensity and morphine consumption in patients undergoing major gynaecological surgeries under general anaesthesia.

**Keywords:** Lidocaine, morphine, postoperative pain, major gynaecological surgeries, general anaesthesia.

NSA 33

## **PATTERN OF ICU ADMISSIONS FOLLOWING SURGERY IN PAEDIATRIC PATIENTS AT THE UNIVERSITY OF PORT HARCOURT TEACHING HOSPITAL, RIVERS STATE**

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### **Background**

Critical care following surgery in paediatric patients may be required for various reasons and may lead to diverse outcomes.

### **Objectives**

This retrospective study reviewed the pattern and outcome of admission of paediatric patients for intensive care following surgery at the University of Port

Harcourt Teaching Hospital (UPTH).

## **Methods**

Children aged between one month – 17 years admitted in the intensive care unit(ICU) following surgery between January 2021 - October 2022 were recruited. Relevant data on demography, clinical characteristics and outcomes from the anaesthesia and intensive care registers, were collected and analyzed using the SPSS v.20, and presented as frequencies and percentages.

## **Results**

Out of a total of 604 paediatric patients operated, 21(3.5%) with mean age of 5.0 ± 4.6yrs, M:F ratio of 1.6:1 received intensive care, with 14(66.7%) planned and 7(33.3%) unplanned admissions. Elective surgeries were 14(66.7%), emergencies 7(33.3%) and 20(95.2%) patients had general anaesthesia. Fourteen (66.7%) patients were from Paediatric surgical unit, 2(9.5%) each from Cardiac and Maxillofacial units, and others 3(14.3%). Operations included exploratory laparotomy 11(52.4%), PDA ligation 2(9.5%), and others 8(38.1%). The indications for ICU admission were haemodynamic monitoring and support following severe haemorrhage 9(42.9%), sepsis 5(23.8%), cardiac surgery 2(9.5%), others 5 (23.8%). Mean duration of stay was 4.1 ± 3.9 days, 16(76.2%) were discharged and mortality rate was 5(23.8%).

## **Conclusion**

Critical care was more following planned admissions, elective surgeries and exploratory laparotomies, and can improve outcomes following surgery in children.

**Keywords:** Surgery, Paediatric patients, ICU admissions, Outcome.

NSA 34

**CLINICAL PROFILE OF CHILDREN ADMITTED IN A GENERAL ICU AND  
OUTCOME AT THE UNIVERSITY OF PORT HARCOURT TEACHING**

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### **Background**

Admission of children for intensive care results from different causes and has varying outcomes.

### **Objectives**

The pattern of admissions and outcomes in children admitted between January 2021 - October 2022 at the general intensive care unit (ICU) of UPTH was retrospectively studied.

### **Methods**

Data on demography, clinical characteristics and outcomes of admission of children between one month – 17years old, admitted in the ICU during the study period were collected, using records from patient's folders and intensive care registers. SPSS v.20 was used for analysis and results presented as frequencies and percentages.

### **Results**

A total of 430 patients were admitted, children being 47(10.9%), mean age  $7.0 \pm 5.5$  yrs, and M:F ratio 1.9:1. Admissions were for postoperative care (21/44.7%), neurological diseases (11/23.4%), respiratory distress and TBI (6/12.8% each) and neuromuscular diseases (3/6.4%). Admitting specialties were paediatric respiratory 6 (12.8%) and neurology 12 (25.5%), neurosurgical for non-operative care 8 (17.0%), and other surgical specialties for postoperative care 21 (44.7%). These 21 patients were general paediatric 14 (29.8%), cardiac and maxillofacial surgeries 2 (4.3%) each and others 3 (6.3%). Indications for admission were for postoperative care 21(44.7%), low GCS 15 (31.9%) and cardio/respiratory support 11 (23.4%). Complications were severe brain injuries 17 (36.2%), severe haemorrhage 9 (19.1%), respiratory failure 8 (17.0%), sepsis

7 (14.8%), electrolyte imbalance 2 (4.3%). Mean duration of stay was  $5.6 \pm 6.3$  days, 22(46.8%) were discharged and mortality rate was 25 (53.2%), majority being from CNS/neuromuscular diseases (17/68.0%).

### **Conclusion**

Critical postoperative care was commonest indication for ICU admission in children, but mortality was highest in CNS/Neuromuscular pathologies.

**Keywords:** Children, ICU admission, Outcomes

### **NSA 35**

#### **ANAESTHESIA THROUGH SOCIAL MEDIA LENS: THE TIKTOK EXPERIENCE**

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**Background:** Generally, the role of the Anaesthetist has primarily been 'behind the scenes' when compared with other surgical specialties. Social media advent has presented an opportunity to improve on negative perceptions and reduce ignorance of the public regarding the specialty of Anaesthesia. This study aimed to evaluate content, quality, authenticity and reliability of Anaesthesia information on TikTok™ videos.

**Methods:** Using #Anaesthesia, #Anesthesiology and #Anesthesia, TikTok™ application was searched for videos bearing anaesthetic content. Non-English videos, videos unrelated to anaesthesia, duplicated videos, videos with audio but no narration and videos with audio only as well as videos with potential commercial promotions were excluded. Content and quality were rated using Global Quality Score, reliability of information was assessed with modified DISCERN tool, while authenticity of information was checked for by comparing information in videos with existing Anaesthesia guidelines.

**Results:** A total of 258 videos uploaded between 2020 and 2022 and associated with

the hashtags were examined and manually coded. The top 150 videos that met the inclusion criteria collectively received 35,566,825 likes, 2,091,905 shares and 800388 comments, with 54% of videos uploaded by males, 46.7% uploaded by doctors and 40% being less than 2 minutes in duration. Only 4% of videos featured black anaesthetists, most videos were patient recovery videos tagged #funny and many educational videos were uploaded from the website, anaesthasier.com. Just 12 (8%) videos were given a Global Quality Score of 5, 8 (5.3%) videos received a Reliability Score of 5 and information relayed by 49 videos (32.7%) were adjudged authentic.

**Conclusion:** Creation of context-specific Anaesthesia educational videos with additional emphasis on refining content and quality of TikTok videos will promote improved visibility of the specialty and increase public awareness.

**Keywords:** TikTok, Anaesthesia, Social media, Content analysis

**NSA36**

**AIRWAY MANAGEMENT WORKSHOPS: ARE THEY ADDRESSING THE KNOWLEDGE GAP.**

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**BACKGROUND:**

Knowledge and skills in airway management have been delivered by training workshops with various delivery modalities and durations<sup>1</sup>. Effectiveness of these workshops should be assessed to help improvement of the training methods.

**AIM:**

1) To assess the improvement in knowledge as a result of airway management training and challenges to training in their workplace.

**METHODOLOGY**

A one-day advanced airway management workshop was organised in Lagos state for different cadre of medical professionals from different specialties. The same test of 10 MCQs based on the training lecture was administered pre- and post-training. We devised a questionnaire to assess the percentage improvement in knowledge as a result of the training.

Questions were on their scores in the pre- and post-training, and challenges to training in their workplace.

## **RESULTS**

All 22 (100%) respondents had improvement in their test scores post training.

The lowest pretest score was 14 (28%) while the highest pretest score was 46 (92%).

The lowest post-test score was 35(70%) and the highest post-test score was 47(94%).

The mean pretest score was  $29.41 \pm 11.7$  and post-test score was  $41.82 \pm 3.4$  with an overall mean percentage increase in knowledge score of  $64.83 \pm 32.1$ .

Up to 36.4% of respondents stated that institutional bureaucracy was the challenge of training in airway management and implementation of acquired knowledge in their workplace. The cost of equipment (27.3%) and lack of will of their management (27.3%) were the other challenges stated by respondents and 18% had no challenges to training in airway management.

## **CONCLUSION**

This survey reveals that the gap in knowledge of airway management can be addressed effectively during airway workshops. Airway managers must consider how to incorporate different methods into teaching programmes to ensure widespread uptake of education in airway management<sup>1</sup>.

## **KEY WORDS**

Airway management training, improvement in knowledge, challenges to training.

**NSA 37**

## MANAGEMENT OF HERBALLY INDUCED SUPRAVENTRICULAR TACHYCARDIA

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**BACKGROUND:** Supraventricular tachycardia (SVT) is a dysrhythmia originating at or above the atrioventricular (AV) node and is defined by a narrow complex (QRS < 120 milliseconds) at a rate > 180 beats per minute. In patients susceptible to SVT, medications, caffeine, alcohol, physical or emotional stress, or cigarette smoking can trigger SVT. Electrical cardioversion has been shown to be the most effective method for restoring sinus rhythm. Synchronized cardioversion starting at 50J can be used immediately in patients who are hypotensive, have pulmonary edema, have chest pain with ischemia, or are otherwise unstable.

**CLINICAL CASE:** A 45 year old man who presented with a 1 day history of retrosternal chest pain, palpitations and breathlessness following ingestion of a herbal concoction. ECG showed features of a monomorphic ventricular tachycardia with a heart rate of 220 bpm and a blood pressure of 96/58mmHg. He was in respiratory distress with a respiratory rate of 35cpm and an oxygen saturation of 90%. A diagnosis of supraventricular tachycardia was made. Attempts at carotid massage and chemical cardioversion with IV Lidocaine and Amiodarone failed. The patient was immediately admitted to the ICU where he was sedated with 50mg of intravenous Propofol followed by a synchronized DC shock (200J) delivered with immediate return of spontaneous sinus rhythm. After successful DC cardioversion, his symptoms resolved but a repeat ECG revealed features consistent with a NSTEMI with an elevated cardiac troponin I. The patient's well-being improved and he was discharged home 3 days after commencement of medication.

**CONCLUSION:** Herbal ingestion may stimulate supraventricular tachycardia in susceptible patients. Electrical cardioversion is the most effective method for restoring sinus rhythm and thus preventing potential complications like myocardial infarction, congestive heart failure, syncope, and sudden death.



**Keywords:** Monomorphic ventricular tachycardia; NSTEMI; Cardioversion; Herbal ingestion

**NSA 38**

### **SUXAMETHONIUM ADMINISTRATION ERROR: A CASE REPORT**

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#### **Background:**

Errors in medication have been reported with varying degrees of morbidity and mortality. Among the causes of error in medication include resemblance of ampoules, lack of adequate crosschecking of drug labels, exhaustion and lack of communication among other causes.

#### **Case report:**

We report a case of erroneous administration of suxamethonium to a hospital staff. The two patients complained of headache, fever dizziness and loss of appetite. The patient was seen in theater and paracetamol was prescribed to relieve the high grade fever, which was taken from a pack of paracetamol brought out from theater suit to recovery area. One of the ampoule was crosschecked as paracetamol and was withdrawn while the second ampoule was also withdrawn in the same syringe without crosschecking as the ampoule look alike which was given to the patient as intravenous injection. Within less than one minute of the injection the patient became weak, lied down and immediately started having fasciculation. Immediately ventilation was started using bag-valve-mask, pulse oximeter was attached and the SP02 was 94% on room air, PR-162 bpm and BP179/104 mmHg. 100% oxygen was then attached to the bag and ventilation continued. Midazolam was about to be given when patient started breathing spontaneously and 100% oxygen was continued using simple face mark at 5 l/min

patient was observed for an hour and then transferred to medical ward with no neurological deficit or any other sequelae.

#### **Conclusion:**

Improper checking of drug labels could lead to medication error, as was presented in this case report.

#### **NSA 39**

### **LIFE SUPPORT SKILLS CAPACITY BUILDING: RECENT EXPERIENCES FROM NIGERIAS SURGICAL PLAN**

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**Background:** The National Surgical Obstetric Anaesthesia and Nursing plan (NSOANP) deployed Basic Life Support and Paediatric Advanced Life Support training as one of the pilot projects to enhance service delivery.

**Aim:** To update the knowledge and skills of healthcare providers according to the American Heart Association 2020 guidelines across the six geopolitical zones in Nigeria.

**Methods:** NSOANP partnered with Smile Train to undertake basic life support (BLS) and paediatric advanced life support (PALS) training of healthcare workers. Each training was conducted by American Heart Association certified instructors under the Smile Train Africa Training Center.

**Results:** The first phase of the training was conducted across the six geopolitical zones in Nigeria. A total of one hundred and sixty-eight healthcare providers have been trained so far in the provider courses and two new instructors were also trained. The training

also revealed gaps in some of the advanced life support skills. In post training feedback, all the participants agreed that the training has empowered them to approach managing emergencies that require basic life support and paediatric advanced life support more confidently and in a systematic approach. Seventy five percent strongly agreed that the training has improved their knowledge and skills in operating a manual defibrillator.

**Conclusion:** Healthcare providers' life support skills and knowledge should be regularly updated as recommended globally in order to positively impact on quality and safety of service delivery.

#### **NSA40**

#### **HIJAB-RELATED TRAUMATIC INJURIES AT A LEVEL 1 TRAUMA CENTER: A CAUSE FOR CONCERN**

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#### **Background**

The hijab is a recognized component of the religious dressing of women of Islamic faith. However, in recent times, we have observed a disturbing occurrence of traumatic injuries associated with its use at the National Hospital Trauma Center.

In a space of four months, three patients presented at the center with severe, debilitating injuries. We present the three cases here with a view to drawing attention to this potentially devastating mechanism of injury.

#### **CASE 1**

A 25 year old female presented with a 2 hour history of loss of left hand and right infraorbital laceration following hijab entrapment in a grinding machine.

Patient was pale, GCS of 15/15, PR=87 bpm, BP=129/71 mmHg, RR=20cpm, SPO2=97% RA. Resuscitation was done with 2 units of blood and she had stump refashioning of the traumatized left forearm under general anaesthesia. Subsequently discharged home 4 days after surgery for follow up in SOPD.

## **CASE 2**

A 29 year old pregnant female, G3, P2+0 presented with loss of the right upper limb and left femoral fracture following hijab entrapment in the belt of a commercial grinding machine.

She was pale for which she was transfused with two units of whole blood. Her GCS was 15/15, PR 94 bpm, BP 98/62 mmHg, RR 22cpm, SpO2 98% RA.

Over a period of 3 weeks, patient had right arm stump refashioning, ORIF with I.M nailing and readjustment of I.M nailing. She spent 6 weeks on admission and was subsequently discharged to SOPD and ANC clinic.

## **CASE 3**

A 37 year old female presented with unconsciousness, neck lacerations following her hijab entrapment in the belt of a grinding machine.

An assessment of severe head injury was made. She was intubated and transferred to the ICU for airway management and mechanical ventilation. Following a period of prolonged endotracheal intubation, the patient was scheduled for elective tracheostomy. During surgery, the right external jugular vein was found to be transected and tamponaded by a soft tissue band. Release resulted in torrential bleeding. Despite efforts at rapid resuscitation and intravascular volume replacement, the patient went into hypovolemic shock and suffered a cardiac arrest. Attempts at resuscitation were unsuccessful.

## **Conclusion**

Religious and governmental organizations should create awareness and educate women on safe use of the apparel especially when around belt/pulley- operated machinery to prevent these debilitating, life changing injuries from occurring.

**KEYWORDS:** Hijab-related, traumatic amputation, femoral fracture, infraorbital laceration.

**ABSTRACTS OF THE 31<sup>ST</sup> ANNUAL SCIENTIFIC CONFERENCE OF THE NIGERIAN SOCIETY OF ANAESTHETISTS (NSA) HELD IN COLLABORATION WITH THE WORLD FEDERATION OF SOCIETIES OF ANAESTHESIOLOGISTS (WFSA)**

**Date – November 21st – December 1st 2023**

**Venue – Gombe International Hotel, Gombe State -Nigeria**

**INVOLUNTARY MOVEMENT OF THE LOWER LIMBS FOLLOWING SUBARACHNOID BLOCK IN A DIABETIC PATIENT**

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**Background:** Spinal anaesthesia is commonly used for various surgeries below the umbilicus including urological surgeries. Whereas many complications occur following the administration of spinal anaesthesia, involuntary movement of the limbs is an extremely rare complication. It presents as a sudden shock-like involuntary muscle contraction affecting a single muscle or multiple muscle groups which often resolves untreated.

**Case Report:** A 56-year-old known diabetic patient, developed jerky involuntary lower limb movement associated with intense itching, tingling sensations and vomiting 90mins after administration of subarachnoid block using 3mls of 0.5% heavy bupivacaine through a 25G quincke bevel spinal needle at L4/L5 interspace. These movements lasted 2-3 minutes, re-occurring 5-10 minutes without any form of stimulation in the limbs despite loss of sensation to the lower limbs. The patient was treated with IV ondansetron 8mg, IV hydrocortisone 200mg, and IV chlorpheniramine 10mg. Symptoms resolved after about 3 hours after induction of spinal anaesthesia with the return of sensory and purposeful motor function of the lower limbs.

**Conclusion –** Involuntary movements of the lower limbs can occur unexpectedly following spinal anaesthesia in a diabetic patient. Anaesthetists should be mindful of this and be ready to manage the situation when it arises.

**Keywords:** Spinal Anaesthesia, lower limbs, involuntary movement, diabetes, bupivacaine, case report.

## COMPLETE NEUROLOGICAL RECOVERY AFTER CARDIAC ARREST FOR 45 MINUTES IN A PATIENT DURING LAPAROSCOPIC CHOLECYSTECTOMY

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**Background:** Cardiac arrest in the theatre can be very destabilizing and can result from various causes. However, prompt recognition and good management can lead to a favourable outcome.

**Case Report:** A 50 yr old lady, known hypertensive for 6 years, presented with right upper abdominal pain for a year and was scheduled for laparoscopic cholecystectomy. On Tabs amlodipine and lisinopril, both 10mg daily but not compliant with medications. General and systemic examinations were essentially normal, MP 3. Investigations requested for were FBC/Diff, EUCr, FBS, CXR and ECG. Intraoperatively, routine checks and preparations were done. A difficult intubation tray set, drugs drawn and labelled. Baseline vital signs were BP140/78mmHg, PR 90bpm, SPO2 98%. Glycopyrrolate 0.2mg and metoclopramide 10mg were given as premedication. The patient was preoxygenated for 5 minutes, induced with 160mg of propofol and 100mcg of fentanyl. 100mg of suxamethonium was given to facilitate intubation, which was successful at third attempt. Blood pressure was labile during the procedure. 50 minutes into surgery, patient arrested and CPR was commenced and continued for 45 minutes but was unsuccessful. During the last office, a finger movement was detected and CPR recommenced. Patient regained spontaneous return of circulation, was taken to ICU where she regained consciousness an hour later. She was taken back to theatre for re exploration severely pale and intra abdominal scan showed a collection. She recovered well without any neurological deficit and was discharged to the ward after 12 days of ICU admission.

**Conclusion:** Early detection by vigilance, good monitoring, prompt and effective CPR post cardiac arrest helps to ensure a favourable outcome. Early recovery from coma usually points to a minimal or no neurological deficit.

**Keywords:** Cardiac arrest, Monitoring, Neurological deficit

SPINAL ANAESTHESIA IN THE PRETERM NEONATE, TERM NEONATE, AND INFANT: A

## THREE-CENTER STUDY\

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**Introduction:** Spinal Anaesthesia (SA) has long been established as safe, cost-effective and easily deployed, but it is underutilized in children. General anaesthesia (GA) which is the most common technique in paediatric surgeries produces cardiovascular and hemodynamic changes which complicate the anaesthesia delivery. The objective of the study was to describe the efficacy and safety of spinal anaesthesia in preterm and termed neonates and infants. **Methodology:** The prospective study started in July 2023 and is ongoing for preterm neonates, term neonates, and infants ASA I-III undergoing surgeries in three tertiary institutions in Northeast Nigeria. The patients were -1 premedicated with IV 0.05mg/kg midazolam for sedation to prevent movement or agitation during the procedure. The procedure was done by a consultant anaesthetist or a senior registrar under supervision with the child positioned on his side with the back flexed and the neck slightly extended or in the sitting position with the back flexed and the neck slightly extended by resting the patient's head on the chest of the assistant or the head stabilized by both hands.

**Results:** Ninety-six (96) patients have been enrolled on this prospective audit; seven-nine (79) were male while seventeen (17) were females. Eight (8) were preterm, thirty-two (32) were term neonates and fifty-six (56) were infants. The average weight was 5.4kg. Of these 83 (86.5%) completed the surgery successfully under spinal anaesthesia while 13 (13.5%) were converted to general Anaesthesia. Of the 13 converted to general anaesthesia, five (5) were intubated before the start of the surgery while eight (8) were completed using a laryngeal mask airway. Hemodynamic parameters (SPO<sub>2</sub>, HR, RR, NIBP, Temperature, 3-lead ECG) were stable through the procedure in 2 patients whose surgery was completed under spinal anaesthesia and no opioid was required. Sedation was provided in 16 (16.7%) with intermittent IV midazolam administration.

**Conclusion:** Spinal anaesthesia is safe, cost-effective, and a technically feasible technique in our setting in the population in the hands of an experienced anaesthetist. pediatric

**Keywords:** Spinal anaesthesia, Preterm neonate, Term neonate, Infant. Address for correspondence: Dr. Yusuf Baffah, Department of Anaesthesia and Critical Care, Federal Medical center, Azare, Bauchi state.

## IMPACT OF CYP2D6 PHENOTYPE ON THE ANALGESIC EFFICACY OF TRAMADOL IN POSTOPERATIVE PATIENTS: A PILOT STUDY

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**Background:** Despite its popularity, data on tramadol pharmacology is poorly documented in our environment. The study aimed at assessing the impact of CYP2D6 cytochrome enzyme on the analgesic efficacy of tramadol in postoperative patients.

**Methods:** This pilot study is a non-randomized, prospective study. After ethical clearance, the time kinetics of tramadol and its metabolite were conducted on 12 postoperative patients after a single oral dose of tramadol at 100 mg. Concentrations of tramadol and its M1 metabolite were assayed using HPLC (UV detection), and CYP2D6 phenotype was computed for each individual. Pharmacokinetic data were analysed using PKsolver. The metabolic ratio of each individual was calculated as a ratio of the AUC<sub>∞</sub> of tramadol to its M1 metabolite (AUC tramadol/ AUC O-desmethyl tramadol). The Log of 0-t 0-t metabolic ratio (CYP2D6 activity score) was determined before the Probability (%) was calculated as  $100i/(T + 1)$  (García-Quetglas et al., 2007). A probit regression analysis was then performed using Microsoft Excel 2010.

**Results:** Four patients were excluded due to incomplete data. Maximum plasma concentration (C<sub>max</sub>), half-life, and time to reach C<sub>max</sub> for tramadol and its metabolite were found to be 4.508 and 4.521 µg/ml; 4.9 and 3.1 hours; 8.5 and 6.2 hours respectively. The study found 57.1% were extensive metabolizers ( $R^2 = 0.954$ ,  $P < 0.05$ ). The study also showed a significant correlation between the time to the first analgesic request and the logarithm of the metabolic ratio. **Conclusion:** This study revealed two metabolic phenotypes, and these phenotypes may predict the analgesic efficiency of tramadol in the studied population.

**Keywords:** Tramadol, CYP2D6 phenotype, O-desmethyl tramadol, metabolic ratio, Pain management.

## CHARACTERISTICS OF PATIENTS WITH CEREBROVASCULAR DISEASES ADMITTED INTO THE ICU AT THE UNIVERSITY OF PORT HARCOURT TEACHING HOSPITAL

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**Introduction:** Cerebrovascular diseases (CVD) constitute significant morbidity that necessitates critical care, and the outcome depends on various factors. We aim to identify the characteristics of patients with CVD admitted into the ICU during the study period and outcomes.

**Methods:** The data on demography, clinical characteristics and outcomes of admission of all patients with a diagnosis of CVD admitted to the ICU from October 2022 to March 2023 were collected, from patient's clinical records. SPSS version 22 was used for analysis and results were presented as frequencies and percentages.

**Results:** Out of 143 patients admitted, 24 (19.2%) had CVD, the mean age was  $58.8 \pm 14.2$  yrs and the M: F ratio was 1:1.2. Mean GCS score was  $8.08 \pm 5.14$ . The radiologic diagnosis was obtained for all the patients who had an Ischaemic: Haemorrhagic of 3.8:1. Interventions included surgery (5(20.8%), mechanical ventilation 9 (37.5%), blood transfusion 5 (20.8%), parenteral nutrition 2 (8.3%), physiotherapy 5 (26.3%), prophylaxis against VTE 17 (89.5%), sedation 3 (12.5) and analgesia 17 (70.8%). Complications included sepsis 2(8.3%), hypovolemic shock 1 (4.2%) and hypotension (1:4.2%). Duration in ICU was 2-21 days ( $8.21 \pm 4.01$ ). A mortality rate of 8 (33.3%) was significantly higher in the male ( $p=0.019$ ) and haemorrhagic CVD ( $p=0.019$ ).

**Conclusion:** The commonest CVD was ischaemic and mortality was associated with haemorrhagic CVD.

**Keywords:** CVD, ICU admission, Outcome.

## CASE REPORT: NEUROLEPTIC MALIGNANT SYNDROME IN A RECENTLY DIAGNOSED SCHIZOPHRENIC PATIENT

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**BACKGROUND** Neuroleptic Malignant Syndrome (NMS) is a rare but potentially life-threatening condition associated with the use of dopamine receptor antagonist drugs or rapid withdrawal of dopaminergic drugs . NMS is usually associated with high-potency first-generation neuroleptic agents but also may be caused by low-potency and atypical antipsychotic agents, antiemetics, tricyclic antidepressants, and lithium.

Classical symptoms include fever, muscle rigidity and autonomic dysfunction 1,2

**CASE PRESENTATION** - Mrs O.O, a 40year old female, recently diagnosed schizophrenic was referred from a peripheral hospital with 4 days history of muscle rigidity, difficulty in swallowing and fever, 3 days after commencement of antipsychotics. On admission in ICU, she was diaphoretic, tachypneic, tachycardic and hypertensive. GCS was 13/15, with generalized rigidity and tremors. WBC was normal, Creatinine phosphokinase was 234IU/L (26-140IU/L). Urinalysis and EUCr were essentially normal.

All antipsychotics were discontinued. She was managed with fluids, paracetamol, tabs Bromocriptine, lorazepam, dantrolene, clonazepam and nifedipine via NG tube. IV midazolam was given as needed. She was also commenced on NIV which was later weaned off. O<sub>2</sub> Tmax on admission was 39.3 C, recorded on day 3, fever subsided on day 5. •Creatinine phosphokinase peaked on day 2 (>2000IU/L), declined to 360IU/L on day 6. •She was discharged to the ward on day 8.

**DISCUSSION:** NMS is a neurologic emergency, and delays in diagnosis and treatment can lead to significant morbidity or mortality. Line of management is early diagnosis and discontinuation of antipsychotics, followed by supportive care and pharmacotherapy. ECT is employed in severe cases or when pharmacotherapy fails.

## **INCIDENCE AND FACTORS ASSOCIATED WITH FAILED SPINAL ANAESTHESIA IN FOUR TERTIARY HOSPITALS.**

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**Introduction:** Anaesthesia has become the technique of choice for surgeries below the umbilicus. It is the most-performed anaesthesia technique in resource-poor settings. The failure rate has been reported to vary between 1 and 20%. The objective of this study was to determine the incidence and factors associated with failed Spinal anaesthesia (SA) in adult patients undergoing surgery under SA.

**Methods:** This multicenter study was a 12-month prospective cohort study that started

in February 2023 and has so far been conducted on 1557 ASA I-III patients undergoing surgeries below the umbilicus and have met the criteria for spinal anaesthesia.

**Results:** A total of 1557 patients were eligible for SA, of which 1494 were included in the study making a response rate of 96%. Those excluded from the study were because of the following: wrong drugs were administered in 34, one had total spinal, and 28 were done under GA. Emergency cases were 627 (42%) while 867 (58%) were elective cases. Mean age and BMI were  $30.43 \pm 24.92$  years and  $24.95 \pm 6.11$  kg respectively. The incidence of failed spinal recorded was 207 (13.9%). The failed spinal 108 (52.2%) were emergency cases while 99 (47.8%) were elective cases. The chi-square test was used to compare failure rates and multivariable regression analysis was performed to investigate potential confounders. Obesity, duration of experience of the anaesthetist, level of lumbar puncture, and multiple attempts were identified as factors associated with failed spinal anaesthesia.

**Conclusion:** The study found that failed spinal anaesthesia has an incidence of 13.9% and factors associated with it are obesity, the experience of the anaesthetist, level of lumbar puncture and number of attempts.

## **USE OF GUM ELASIC BOUGIE TO FACILITATE BLIND NASAL INTUBATION IN BILATERAL TEMPOROMANDIBULAR JOINT (TMJ) ANKYLOSIS ABDULLAHI IS, BASHIRRM, BARASS.**

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**Background:** Airway management in patients with temporomandibular joint ankylosis (TMJA) is challenging to the anaesthetist, especially in resource-poor settings where fibreoptic intubation equipment is not available or the specialized skill is lacking. Therefore, blind nasal intubation remains the only available non-surgical means of securing the airway. The bougie is a simple reusable tool associated with increased first-pass success in obtaining a definitive endotracheal airway with visual and tactile confirmation.

**Case report:** A 27 years old lady was booked for emergency exploratory laparotomy on account of pelvic abscess to rule out appendiceal mass. Incidental findings of severely restricted mouth opening and dental anarchy were observed. Due to the non-availability

of a fiberoptic bronchoscope, the airway management options were blind nasal intubation and tracheostomy. The otorhinolaryngologist was on standby in case the former technique failed. She had premedication with glycopyrrolate and pre-oxygenation done. Induced with incremental dosing of halothane in oxygen until the deep plane of anaesthesia was reached. The first two attempts of blind nasal intubation failed, the third successful attempt was undertaken with a bougie which elicited a cough and also provided tactile confirmation of the tracheal placement and the endotracheal tube was railroaded into the trachea. Tracheal intubation was further confirmed by 5-point auscultation. Balanced Anaesthesia technique was maintained via a closed circuit. Standard monitoring was employed throughout the uneventful procedure. The neuromuscular relaxant was reversed and extubated fully awake at the end of surgery.

**Conclusion:** The use of gum elastic bougie to facilitate blind nasal intubation can be utilized for cases of bilateral TMJA to improve the success of conventional blind nasal intubation especially when fiberoptic intubation equipment is not available or the skill is lacking.

**Keywords:** Blind nasal intubation, Bougie, Temporomandibular joint ankylosis, Airway.

## EASE AND SAFETY OF SEVOFLURANE VERSUS HALOTHANE FOR ENDOTRACHEAL INTUBATION AMONG UNDER-FIVE CHILDREN SCHEDULED FOR ELECTIVE SURGERY

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**Background:** Inhalational induction of anaesthesia is practised frequently in paediatric surgical patients because of difficult venous access and the fear of needles in children. Halothane has been the inhalational anaesthetic drug used for many decades even though it has a myriad of side effects. We compare sevoflurane with halothane in terms of safety and ease of endotracheal intubation in under five children.

**Methodology:** Ninety children aged 1-5 years of ASA Classes I and II scheduled for elective surgery were recruited for the study; 85 participated. General Anaesthesia was induced in 42 children using sevoflurane 3 to 7 volumes per cent at the rate of 1% increment every 30 seconds. In the second group of 43 children, induction was with halothane 1-3 volumes per cent at the rate of 0.5% increment every 30 seconds until completion of induction. The trachea was intubated with appropriate-sized, non-cuffed endotracheal tubes and anaesthesia was maintained with either sevoflurane or

halothane in oxygen. Data collected included induction time, intubating conditions, MAP, pulse rates, SpO and respiratory complications at induction.

**Results:** The time taken to induce anaesthesia was 4.7 and 4.5 minutes for sevoflurane and halothane respectively ( $p= 0.559$ ). The mean arterial pressures, pulse rate and SpO were similar in both groups 2 preoperatively. However, at induction, 1, 3, and 5 minutes after intubation changes in MAP were different for both inhalational agents and the differences were statistically significant ( $p$  values, 0.047, 0.044, 0.012 and 0.012 respectively) with halothane showing myocardial depression. However, there was no significant difference statistically in intubating conditions when sevoflurane was compared with halothane ( $p= 0.155$ ). Thirteen children in the halothane group had complications, five of them related to the respiratory system; while 3 had complications in the sevoflurane group (none related to the respiratory system). The difference in the rate of respiratory complications between the two groups was significant ( $p= 0.001$ ).

**Conclusion:** Sevoflurane provided better haemodynamic stability and no respiratory complications compared to halothane at induction of anaesthesia in under five children.

**Keywords:** Sevoflurane, Halothane, Induction, Children.

## COMPARISON OF THE ANALGESIC EFFICACY BETWEEN BILATERAL INFRAORBITAL NERVE BLOCK AND INTRAVENOUS KETOROLAC FOR CLEFT LIP REPAIR IN CHILDREN

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**Background:** Surgical repair of cleft lip is associated with appreciable post-operative pain. Opioids have since been considered the mainstay of pain management, but they are associated with postoperative respiratory depression and sedation. This study compared bilateral infraorbital nerve block and intravenous ketorolac in terms of their postoperative analgesic efficacy and safety following cleft lip repair in children.

**Methodology:** A prospective randomised controlled study of seventy-four consented ASA I and ASAII patients, aged between one to five years scheduled for elective cleft lip repair. The study groups were the Bilateral infraorbital nerve block group (BO) and intravenous ketorolac group (KO) equal participants. Group BO received a bilateral infraorbital nerve block with 1ml of 0.25% plain bupivacaine, while group -1 KO received 0.5mg/kg intravenous ketorolac at the end of the surgery. The postoperative analgesia was assessed using the Children's Hospital of Eastern Ontario Pain Scale (CHEOPS), starting at the Post Anaesthesia Care Unit (PACU), then hourly for the first 4 hours, followed by 4 hourly for the next 24 -1 hours. Whenever the CHEOPS  $>5$ , 15 mg/kg intravenous paracetamol was administered and maintained 6 hourly for 24 hours. The outcome of the study was to assess the level of postoperative pain score, and the

duration of analgesia, and to compare the total analgesic consumption between the two study groups.

**Results:** Bilateral infraorbital nerve block significantly reduced pain at 0 and 12 hours compared to intravenous ketorolac. Thereafter, the pain score remained similar between the two groups over 24 hours. The duration before the first analgesic request was significantly longer in group BO compared to KO  $8.43 \pm 73.12$  hours vs  $6.30 \pm 80.52$  hours respectively;  $p=0.04$ . The mean total dose of paracetamol consumed between the two groups over 24 hours was  $223.08 \pm 214.12$  mg and  $657.83 \pm 248.49$  mg for groups BO and KO respectively;  $p =0.02$ . Conclusion: Bilateral infraorbital nerve block provides better postoperative analgesia in terms of lower mean pain score, longer duration of analgesia, and lower consumption of postoperative analgesics compared to intravenous ketorolac following cleft lip repair in children.

**Keywords:** Cleft lip, postoperative analgesia, bilateral infraorbital nerve block, ketorolac..edu.ng

## THE PREVALENCE AND IMPACT OF LOW BACK PAIN AMONG ANAESTHESIA CARE PROVIDERS IN SOUTH-SOUTH NIGERIA

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**Background:** This study aims to ascertain the risk factors for developing low back pain (LBP) and the impact on personal workplace service delivery among Anaesthetists practising in Rivers and Bayelsa States of Nigeria.

**Methods:** It was a cross-sectional survey with a self-administered questionnaire reflecting the modified Oswestry Disability Index (ODI) used, and the severity of pain was done using VAS. The prevalence of low back pain was calculated and described by using frequency tables. Significance was considered at  $p<0.05$  with a 95% confidence interval.

**Results:** A total of 65 anaesthetists responded, giving a response rate of 90%. There were more males (52.3%) than females (47.7%). The majority (69.2%) of respondents had low back pain, more in females (53.3%) compared to males (46.7%) although not significant. ( $P=0.994$ ); 56.8% had moderate pain, mild (20.5%) and severe (22.7%). There



was no association between low back pain and age ( $P=0.130$ ), gender ( $P=0.994$ ), marital status ( $P=0.333$ ) and BMI ( $P=0.164$ ). Bending ( $P=0.032$ ), lifting ( $P=0.024$ ), and standing ( $P=0.016$ ) were predictive variables for low back pain and were statistically significant  $P<0.05$ . Visual Analogue Score was used to assess the severity of pain. 69.2% of respondents with LBP, had moderate pain (56.8%), mild (20.5%) and severe (22.7%). 26.4% admitted to missing at least one day of work due to LBP. Conclusion: The study found that frequent bending twisting, prolonged standing and lifting were certified risk factors in the development of low back pain among Anaesthetists. Low back pain was severe enough to cause the anaesthetist to ask to be excused from work.

**Keywords:** Low back pain, Oswestry disability index, Anaesthesiologist.

## CLINICAL CHARACTERISTICS OF ICU PATIENTS WHO RECOVER FROM ACUTE KIDNEY INJURY, A SINGLE TERTIARY HOSPITAL EXPERIENCE

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**Introduction:** Acute kidney injury (AKI) is a common health problem associated with increased morbidity and mortality among ICU patients. The incidence of AKI among ICU patients varies widely across different countries. In low- and middle-income countries (LMICs), information about this condition is still scarce. The objective of this study is to describe the characteristics of AKI patients who recover from our ICU.

**Methodology:** This single-centre prospective cohort study included 76 patients for 18 months in ATBUTH Bauchi from June 2022 to September 2023. Socio-demographic data, laboratory, and APACHE II scores were registered, including the aetiology of AKI, whether acquired in the community or hospital, length of stay, procedures, and level of AKI.

**Results:** Out of the 76 patients included in this study, 44 (57.9%) were females while 32 (42.1%) were males. The mean age was  $44.11 \pm 8.13$ , the mean BMI was 26.2, and the mean APACHE II was  $18.4 \pm 6.2$ . Fifty-three patients (70%) recovered while 23 (30%) died. Forty-eight (91%) of recovered patients had a BMI  $< 29$ . Among the survivors, 57 (92%) were aged less than 40. Thirty-eight (72%) could either afford dialysis on admission or were enrolled in NHIS. Thirty-nine (74%) had AKI on admission while 14 (26%) developed AKI while on admission. Ninety-two per cent of the survivors were admitted into ICU from either the gynaecological ward (63%) or the surgical ward (27%),

and 89% of the survivors were stratified as KDIGO 1 or 2.

**Conclusion:** This study shows that characteristics of patients such as young age, small BMI, ability to afford care, and presentation of AKI on admission have a positive relationship with recovery rate.

**Keywords:** Acute kidney injury, Intensive care, Mortality, APACHE II.

## SEVERE DENGUE FEVER IN A 22-YEAR MAN

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**Background:** Dengue fever is an arthropod-borne viral illness spread by the mosquito *Aedes Aegypti*, which also spreads Yellow fever, Zika and Chikungunya. Residents of tropical and sub-tropical regions worldwide, including Nigeria, are at risk of Dengue infection. Dengue fever may present with features indistinguishable from malaria, another mosquito-borne illness. The clinical features range from a mild self-limiting illness with flu-like symptoms to Dengue Haemorrhagic fever, a fulminant severe clinical situation with prostration, haemorrhage, shock and possible death. The case fatality rate for severe Dengue ranges from 2% to 50% depending on treatment. Dengue can be tested by using a simple antigen or serological test and may be prevented by controlling the proliferation of mosquitos. We present a case of severe Dengue fever with severe complications who had a turbulent and prolonged hospital stay before eventual recovery. Case report: A 22-year-old presented to the hospital with malaise, fever, vomiting bloody diarrhoea, generalized rash and muscle weakness after being found collapsed at home by friends. He was found to also be short of breath and hypotensive. He was admitted into the Intensive Care Unit and was ventilated and placed on inotropic support. He was on antibiotics for sepsis (initially Meropenem, Vancomycin and Metronidazole and later Colistimethate and Co-trimoxazole for acquired sepsis). His initially persistent fever led to a therapeutic trial with the antiviral Acyclovir which broke the fever. He had other supporting care. The serology was two weeks post-admission and turned positive for dengue five days later. He had a prolonged course of illness with prolonged ventilation for a total of 46 days and a tracheostomy on st the 31 day. He developed multiple complications which include Ventilator-associated Pneumonia, Pneumothorax, Cardiac arrest, Critical illness myopathy, bulbar muscle dysfunction,



Candiduria, severe weight loss, Anemia and depression. He was difficult to wean from the ventilator even after tracheostomy due to persistent and profound muscle weakness. He stayed a total of 96 days in the hospital, had other supportive care with multiple specialities and eventually made a full recovery.

**Conclusion:** Viral haemorrhagic fever especially Dengue fever should be considered and screened for in cases of fever or sepsis recalcitrant to conventional therapy.

**Keywords:** Dengue, Dengue Haemorrhagic fever, Aedes Egyptii, Prolonged ventilation.

## **ANAESTHETIC MANAGEMENT OF THE MORBIDLY OBESE SCHEDULED FOR RIGHT SHOULDER ARTHROSCOPY AND TENDON REPAIR**

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**Introduction:** Obesity is a global epidemic according to the World Health Organization, it is underestimated, even as we observe continuous rise in the numbers. Anaesthetists like other physicians are seeing an increasing number of patients with obesity and morbid obesity in our daily practice. These patients usually present as well with the comorbidities and challenges that are associated with obesity. We aim to demonstrate the advantages of regional anaesthesia; it spares opioid-based analgesia and is associated with rapid recovery, early mobilisation and shortened hospital stay.

**Case Report:** We performed an interscalene block using an ultrasound technique with 0.75% ropivacaine and dexmedetomidine. We then secured a definite airway with a size 7.5 endotracheal tube facilitated by IV propofol 200mg and IV rocuronium 40mg. Anaesthesia was maintained with an infusion of propofol and remifentanyl. The patient was placed in the beach chair position and surgery lasted 90 minutes. The infusion was stopped and the patient was extubated fully awake, the nasopharyngeal airway was inserted till the return of airway control. Our patient had effective pain control intraoperatively and up to 24 hours postoperatively, recovery was fast and she was discharged home on the second-day post-surgery on oral paracetamol.

**Conclusion:** Regional block can be safely used for opioid-sparing analgesia, morbidly obese patients can benefit from this opioid-sparing technique with better outcomes.

**Keywords:** Regional anaesthesia, shoulder arthroscopy, beach chair position, interscalene block, morbidly obese.

## EFFECT OF DEXAMETHASONE ON HEAVY BUPIVACAINE IN UNILATERAL SPINAL ANAESTHESIA FOR LOWER LIMB OPEN REDUCTION AND INTERNAL FIXATION

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**Background:** The unilateral spinal technique has been shown to have better haemodynamic stability than conventional spinal anaesthesia and various additives have been tried to improve the efficacy of local anaesthetic agents. This study compares the efficacy and safety of the use of 10 mg of 0.5% hyperbaric bupivacaine alone versus the combination of 10 mg of 0.5% hyperbaric bupivacaine with dexamethasone for unilateral spinal anaesthesia for lower limb open reduction and internal fixation (ORIF) of fractures.

**Methodology:** It was a prospective double-blinded randomized study. Sixty-eight ASA I and II, aged 18 to 75 years old patients consented. Patients were equally grouped into group BA which had 10 mg of 0.5% intrathecal heavy bupivacaine with 1 ml of normal saline, and group BD had 10 mg of 0.5% intrathecal heavy bupivacaine with 4mg dexamethasone at the 3-4 lumbar spine with a Whitacre spinal needle in lateral position. All the patients were left for twenty minutes on the dependent side to be blocked and thereafter put in the supine position. The duration before the request for analgesia was recorded, others were HR, NIBP, RR, SPO and VAS throughout the study. Intravenous pethidine 50-100 mg was given 2 when VAS  $\geq$  4 as rescue analgesia.

**Results:** The mean time to the first analgesic request was significantly prolonged in group BD than in BA:  $383.64 \pm 88.03$  and  $180.46 \pm 30.49$  minutes respectively  $p=0.000$ .

**Conclusion:** The addition of 4 mg of dexamethasone to 10 mg of 0.5% heavy bupivacaine intrathecally prolonged duration to the first analgesic request in unilateral spinal anaesthesia for ORIF. **Keywords:** Dexamethasone, open reduction and internal fixation, visual analogue scale. Address for

## IMPROVING THE PRACTICE OF AIRWAY MANAGEMENT IN NIGERIA BY EDUCATION, TRAINING AND COMMUNITIES OF PRACTICE.

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**BACKGROUND** Airway management is a key competency for anaesthesiologists and other professionals working in the operating room, intensive care unit and emergency room. There is a significant variation in resources and skills of healthcare providers in various countries, institutions, and even departments within institutions. The Society of Specialists in Airway Management (SSAM), Nigeria aimed to bridge the gap in access to training and airway management devices to improve the practice of airway management through coordination of airway workshops and creation of a platform for all stakeholders in airway management.

**Methodology:** We established a community of practice by creating a social media platform for all healthcare professionals involved in airway management in 2020. Surveys done revealed the challenges to the training and practice of airway management in Nigeria. There has been information dissemination for education, training, access to airway devices donated and availability at cheaper rates. The birth of the airway society enabled engagement of all stakeholders in airway management in all the geopolitical zones. Results We have been able to conduct several webinars, workshops, and courses in airway management across the country. We collaborate with other societies, donors, and professionals to deliver airway management training. Templates have been designed to ensure standardised training. Thirty simulation centres have been established in collaboration with the Airway Development Incorporated to improve access to training with over 400 airway mannequins and numerous airway management devices donated. The centres are coordinated by airway leads who are responsible for training, creating communities of practice in airway management in their centres and research.

**Conclusion:** Our research in airway management will help provide data for airway management guidelines adaptable to our peculiar environment. The activities of the society have led to greater access to training and collaborations for improvement in the practice of airway management in Nigeria.

**Keywords:** Airway, training, practice.

## **ULTRASOUND GUIDED TRUCUT BIOPSY OF ABDOMINAL MASSES: A preliminary report of 7 cases.**

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**Introduction:** Ultrasound guided trucut biopsy remain a useful diagnostic tool in breast and other superficial masses, however in childhood abdominal masses the procedure is discouraged because of fear of spread of tumour. This is a preliminary report of ultrasound guided trucut biopsy of abdominal masses in 7 children.

**Methods:** It was a retrospective analysis of 7 children presenting with various degrees of abdominal masses. Their age range was 2-6 years, they presented with history of abdominal swelling, some with weight loss, and two with jaundice. All had initial USS, some with CT abdomen.

**Results:**1. USS showed renal masses in 3, biopsy confirmed Nephroblastoma in all 2. USS showed 2 hepatic masses , biopsy confirmed hepatoblastoma in all the 2 and 3. USS nonspecific solid abdominal masses, biopsy confirmed lymphoma in 1 and 4. USS pelvic mass, reported as non-specific with inflammatory cells, open incisional biopsy still gave same report, The diagnoses were confirmed in 6 out of the 7 patients, the patients were placed on neoadjuvant chemotherapy before definitive surgery with satisfactory outcome, and there was no macroscopic spread to the skin in all the patients.

**Conclusion:** Ultrasound guided biopsy of abdominal can be a valuable method of diagnosis of abdominal masses, especially in this environment where patients usually present late with huge abdominal masses and often will not withstand laparotomy even though the data is not large enough

## ULTRASOUND GUIDE ASPIRATION OF HEPATIC CYST IN A CHILD: A CASE REPORT\*

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**CASE REPORT:** Ultrasound guided procedures are now becoming increasingly common these days, especially with cost of health care constantly rising. We present a 17-month-old boy who had ultrasound guided aspiration of hepatic cyst. The child was referred from another hospital with 2 month old history of abdominal swelling, no history of jaundice, no history of fever, no significant weight loss, and no GI symptoms. Abdominal USS report was hepatic abscess, ?amoebic liver abscess. Other investigations were normal, he was placed on antibiotics, including metronidazole, but the mass persisted. He was therefore prepared and had USS guide aspiration of the cyst under sedation, where a straw-coloured fluid was aspirated, the aspirate was reported as non-malignant. On follow up for six weeks, no recurrence was noted. **Conclusion:** USS guided aspiration of hepatic cyst can be done safely and effectively in a child with liver cyst with satisfactory outcome.

## **AWARENESS AND PRACTICE OF PAIN MANAGEMENT GUIDELINES AMONG NURSES IN PAEDIATRIC UNITS OF UNIVERSITY OF ILORIN TEACHING HOSPITAL, ILORIN KWARA STATE**

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**BACKGROUND** Maintaining an optimal level of comfort for patients is a universal goal for nurses because pain is one of the major experiences that can minimize patients' comfort. These patients experience pain from preexisting diseases, invasive procedures, or trauma. Pain assessment is the first step in proper pain relief which is an important goal in patients' care. Despite the availability of pain medications, research and pain management techniques, children continue to experience significant amount of pain. Since pain in children can be under recognized and unrelieved, it is important to identify factors that enhance or inhibit effective pain management in them. The study was carried out to examine the awareness and practice of pain management guidelines among nurses in paediatric units of University of Ilorin Teaching Hospital, Ilorin, Kwara state.

**METHODS:** The research was a descriptive design structured to obtain information from the nurses. A convenient sampling technique was used to select fifty (50) respondents. Self-developed structured questionnaires containing 25 items and divided into three sections were administered. The data obtained were collated and analyzed using tables, bar chart, histograms and pie chart while chi-square was used to test the

hypotheses.

**RESULTS:** It was found that majority of the nurses 47(98%) were aware of pain management guidelines and this reflected in their practice. The use of these guidelines was also found not to be negatively influenced by the nurses' workload.

**CONCLUSION:** Paediatric nurses are aware and utilize pain management guidelines in their practice. More so, presence of high workload did not interfere with its use.

## **PAIN ASSESSMENT IN CANCER PATIENTS AMONG PHYSICIANS MANAGING CANCER PAIN.**

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**Background:** Cancer pain management is a complex and critical aspect of patient care, with pain assessment serving as a cornerstone of effective treatment. Physicians face the formidable challenge of not only alleviating the suffering of cancer patients but also tailoring pain management strategies to individual needs which starts from the assessment and monitoring of the progress of treatment of pain. This study intends to study the level of utilization of standardized pain assessment tools and implementation of pain management practices.

**Methods:** This study investigated the pain assessment model used by physicians managing cancer pain in a cohort of 100 respondents. The data analysis involved examining various variables such as respondent consent, demographics (gender, cadre, level of practice, and speciality), pain education practices, tools used for pain assessment (both adult and paediatric), documentation of baseline pain scores, utilization of pain scores for follow-up, patient education on pain management options, implementation of patient choices in pain management, adherence to pain management protocols, and the presence of outpatient pain clinics. **RESULTS:** The responders about 89% practised at tertiary-level hospitals, with 69% following the WHO ladder analysis in pain management. It was found that 51% educate patients on pain assessment for cancer pain management, and a variety of pain assessment tools were employed, notably the Numerical Rating Scale (46%) for adult patients and Faces, Legs,

Activity, Cry, and Controllability (FLACC) scale (11%) for paediatric patients. Only 18% of respondents managed acute and chronic cancer pain in outpatient pain clinics.

**Conclusion:** This research provides insights into the diverse approaches employed in pain assessment among physicians managing cancer pain, revealing gaps in patient education and the application of diverse pain assessment tools for cancer pain management in both adult and paediatric cases.

**Keywords:** Pain, Pain Assessment, Cancer,