

Regional Vascular data Sheet, Periodic Audit to assess adherence to guidelines. They are aligned at John Hopkins's Quality and Safety Research model to implement a Good Practices Called '4E' ENGAGE, EDUCATE, EXECUTE, EVALUATE.

**Conclusion:** the results suggests that "Targeting Zero" is an ambitious goal but it can be achieved through a specific and dedicated policy providing for the implementation of a multifaceted program and the involvement of all actors at different institutional levels of the system (regional administrators, CEOs of healthcare organizations and frontline professionals).

**Disclosure of Interest**

None Declared

**P227b**

**Microbiology analysis of catheter related bloodstream infections in critical care patients of a Costa Rican pediatric third level hospital**

Tatiana Barrantes Solís, Milena Arias Jiménez, Marlen Villegas Sánchez, Jorge Delgado Arguedas, Marcela Hernández de Mezerville Hospital Nacional de Niños, Dr. Carlos Sáenz Herrera (HNN), San Jose, Costa Rica

**Correspondence:** Tatiana Barrantes Solís

*Antimicrobial Resistance and Infection Control* 2017, **6(Suppl 3):P227b**

**Introduction:** Catheter-related bloodstream infection (CRBSI) case definition requires at least one positive blood culture not related to infection in another body site. There are 3 main situations when central line contamination can occur: during insertion, at daily manipulation or by contamination of administered fluids.

**Objectives:** To describe the microbiology of the central line infections in the intensive care Units of the "Hospital Nacional de Niños, Dr. Carlos Sáenz Herrera" (HNN), the only pediatric referral center of Costa Rica.

**Methods:** Descriptive study of blood cultures of patients under 13 years old, hospitalized at the Neonatal Intensive Care Unit and the Pediatric Intensive Care Unit at HNN, who had a central line and developed a bloodstream infection between January 1<sup>st</sup>, 2013 and December 31<sup>st</sup>, 2015.

**Results:** We analyzed 113 positive blood cultures, 104 with only one germ and seven with 2 or more, for a total of 123 identifications. 46% were Gram-negative bacteria, 43% Gram-positive and 11% fungi. Main pathogens were *E.coli*, *K. pneumoniae* and *S. epidermidis*, as well as *Candida spp.* 20% were extensively drug-resistant bacteria and 2% were pandrug-resistant. In children who had more than one CRBSI, 33% were with the same pathogen. Median time from central line insertion to positive blood culture was 20.3 days.

**Conclusion:** Unlike this study, most report Gram-positive bacteria as the main pathogen in CRBSI, secondary to skin colonization during central line insertion. The predominance of Gram-negative bacteria and the time elapsed between insertion and sepsis manifestation suggest catheter manipulation as the possible source. The high proportion of extensive-resistant bacteria and yeast infections alerts about the increase of multidrug-resistant organisms and the need to improve the rational use antibiotics.

**Disclosure of Interest**

None Declared

**Surgical site infection: Surveillance**

**P228**

**Public reporting used as a driver for quality improvement: the New Zealand surgical site infection improvement programme**

Nikki Grae, Sally Roberts, Deborah Jowitt, Arthur Morris, on behalf of Infection Prevention & Control Programme New Zealand Health Quality & Safety Commission, Wellington, New Zealand

**Correspondence:** Nikki Grae

*Antimicrobial Resistance and Infection Control* 2017, **6(Suppl 3):P228**

**Introduction:** Public reporting has been a feature of the New Zealand Surgical Site Infection Improvement (SSII) Programme since 2013. The SSII Programme focuses on reducing SSI following hip and

knee arthroplasty and cardiac procedures through a bundle of interventions (clipping not shaving the surgical site, alcohol-based skin prep, and timely administration of the appropriate antibiotics in the right dose). Quality and Safety Markers (QSM) were developed to monitor improvement in the process.

**Objectives:** The aim of the SSII Programme is to improve the standard of care by measuring compliance with these interventions. Public reporting of the QSM performance was seen as a driver for practice change and supported continuous quality improvement initiatives at the local level.

**Methods:** Standardised process and outcome data is recorded on all hip and knee arthroplasty and cardiac procedures funded by District Health Boards (DHB) which equate to approximately 12,500 procedures annually. The QSM process measures focus on the correct use of surgical antimicrobial prophylaxis (SAP) and use of alcohol-based skin prep and the outcome measure is the SSI rate. QSM targets were established to set the expected levels of performance. Reporting of each DHB performance against the QSM targets occurs quarterly and is available on a public-facing website.

**Results:** There has been a significant aggregated improvement in QSM performance between July 2013 and September 2016.

**Conclusion:** Transparent public reporting of each DHB performance against the QSM targets supported alignment and coordination of quality improvement activities nationally. Multidisciplinary teams with strong clinical engagement from individual DHBs implemented quality improvement initiatives based on their specific opportunities and systems. The initiatives and key learnings were then shared at regional and national meetings so other DHB SSII Programme teams could also benefit. The SSII Programme has resulted in significant improvement in QSM performance and most procedures now comply with recommended best practice.

**Disclosure of Interest**

None Declared

**P229**

**Surveillance of surgical site infections: an emergency in Saint John of God regional hospital of Northern in Republic of Benin**

Semevo Romaric Tobome<sup>1,2</sup>, Thierry K. Hessou<sup>1</sup>, Adrien M. Hodonou<sup>3</sup>, Robert Akpata<sup>4</sup>, Roberto Caronna<sup>2</sup>, Alexandre S. Allodé<sup>3</sup>, Alassan S. Boukari<sup>1</sup>, Ulrich Parfait Otchoun<sup>1</sup>, Roméo Haoudou<sup>1</sup>, Giambattista Priuli<sup>1</sup> <sup>1</sup>Saint John of God Hospital, TANGUIETA, Benin; <sup>2</sup>Sapienza University, Roma, Italy; <sup>3</sup>University of Parakou, Parakou, Benin; <sup>4</sup>French National Institute of Health and Medical Research (Inserm), Conakry, Guinea

**Correspondence:** Semevo Romaric Tobome

*Antimicrobial Resistance and Infection Control* 2017, **6(Suppl 3):P229**

**Introduction:** Surgical site infections (SSI), are seen as a reflection of the healthcare quality in hospitals

**Objectives:** To study the SSI at Saint John of God Hospital Tanguéta (SJGHT) as a prelude to the implementation of a permanent monitoring system

**Methods:** It was a descriptive and prospective study in the Department of General Surgery of SJGHT from 1 July 2016 to 31 January 2017. It admits patients 15 years of age or older. The SJGHT haven't a microbiology unit. The study population consisted of all patients admitted in it, after a surgical operation from July to December 2016. For each patient surgical wound was monitored for one month. The diagnostic criteria used are those for the monitoring of the SSIs (WHO/2002.12. Prévention des infections nosocomiales 2<sup>e</sup> édition). Data was recorded and analyzed using Epi info 7. Statistical tests were used accordingly, p less than 0.05 considered as statistically significant

**Results:** For 343 patients operated, 105 (30.6%) had SSI. The mean age of the patients with SSI was 40.3 years. The sex ratio was 4. Emergency surgery resulted in a 50.0% rate of SSI (p=0.00). The most common surgical intervention was laparotomy (26.7%). American Society of Anesthesiologists (ASA) score was good (1 or 2) in 77 patients out of 301 and poor (3 or more) in 30 out of 42; p=0.00. 112 were operated on clean or clean-contaminated surgery and 6.1% presented SSI, 231 patients had been operated on infected contaminated or contaminated surgery, of whom 81.3% presented SSI (p=0.00). For 35 patients the

NNIS was 2 and all of them presented SSI; NNIS was 1 for 105 patients, of whom 66.7% presented SSI; none of the remaining 203 patients with NNIS0 developed SSI ( $p=0.00$ ). It was: superficial 13.3%; deep 46.7%; organ/space 40.0%. The mean time prior to occurrence of SSI was 4.2 days. The hospital stay duration of patients with SSI was three times longer than the duration of patients without SSI ( $p=0.00$ )

**Conclusion:** Implementation of a simplified SSI monitoring system is therefore an emergency in SJGHT

#### Disclosure of Interest

S. R. Tobome Employee of: none, Grant/Research support from: none, Speaker's bureau of: none, Shareholder of: none, Consultant for: none, Paid instructor for: none, Other conflict with: none, T. Hessou Employee of: none, Grant/Research support from: none, Speaker's bureau of: none, Shareholder of: none, Consultant for: none, Paid instructor for: none, Other conflict with: none, A. Hodonou Employee of: none, Grant/Research support from: none, Speaker's bureau of: none, Shareholder of: none, Consultant for: none, Paid instructor for: none, Other conflict with: none, R. Akpata Employee of: none, Grant/Research support from: none, Speaker's bureau of: none, Shareholder of: none, Consultant for: none, Paid instructor for: none, Other conflict with: none, R. Caronna Employee of: none, Grant/Research support from: none, Speaker's bureau of: none, Shareholder of: none, Consultant for: none, Paid instructor for: none, Other conflict with: none, A. Allodé Employee of: none, Grant/Research support from: none, Speaker's bureau of: none, Shareholder of: none, Consultant for: none, Paid instructor for: none, Other conflict with: none, A. Boukari Employee of: none, Grant/Research support from: none, Speaker's bureau of: none, Shareholder of: none, Consultant for: none, Paid instructor for: none, Other conflict with: none, U. P. Otchoun Employee of: none, Grant/Research support from: none, Speaker's bureau of: none, Shareholder of: none, Consultant for: none, Paid instructor for: none, Other conflict with: none, R. Haoudou Employee of: none, Grant/Research support from: none, Speaker's bureau of: none, Shareholder of: none, Consultant for: none, Paid instructor for: none, Other conflict with: none, G. Priuli Employee of: none, Grant/Research support from: none, Speaker's bureau of: none, Shareholder of: none, Consultant for: none, Paid instructor for: none, Other conflict with: none

#### P230

##### Point prevalence and surveillance of healthcare associated infections in surgical wards of a University-Affiliated Hospital in Mashhad, Iran

Mohammad Hassan Aelami<sup>1</sup>, Ali Jangjoo<sup>2</sup>, Hamid Reza Naderi<sup>2</sup>, Nasrin Khosravi Zenyani<sup>2</sup>, Irandokht Mostafavi<sup>2</sup>, Haleh Amirian<sup>2</sup>

<sup>1</sup>Pediatrics; <sup>2</sup>Mashhad University of Medical Sciences, Mashhad, Iran, Islamic Republic Of

**Correspondence:** Mohammad Hassan Aelami

*Antimicrobial Resistance and Infection Control* 2017, **6(Suppl 3)**:P230

**Introduction:** Healthcare-associated infections (HAIs) are a major problem for patient safety.

**Objectives:** Its surveillance and prevention must be the first priority in each hospital.

**Methods:** The study was a point prevalence survey measured at two points (16Dec2012 and 8 Jan 2014) in Imam Reza hospital; Mashhad, Iran. All patients were followed by call till one month for surgical site infections using CDC criteria. All patients admitted more than 24 hours were included. Questionnaires with demographic and clinical characteristics were filled by the physicians.

**Results:** During the 2 point prevalence surveys, a total of 23 patients with HAIs were identified among 329 patients (6.9%). A total of 29 HAIs were reported which the most frequent HAIs were surgical site infections (SSIs; 3.6%), symptomatic urinary tract infections (SUTI; 1.8%), ventilator-associated pneumonia (VAP; 1.5%) and blood stream infections (BSI; 0.9%). Prevalence of HAIs was high in cardiothoracic surgery (40% in 2012) and ICU (38.4% in 2014). After 30-day surveillance for surgical site infections, we could follow 191 patients (58.2%) which, 6 of them (3.1%) developed surgical site infections and 7 of them (3.6%) expired. In 2012, having a urinary catheter was associated with symptomatic urinary tract infections and in 2014, having a central venous catheter was associated with blood stream infections.

**Conclusion:** Prevalence of HAIs in surgical wards in our hospital was relatively low and maybe underreported.

#### Disclosure of Interest

None Declared

#### P231

##### Identification of isolated germs in surgical site infections in caesarean parturients at the Chu of Béni Messous, Alger- Algeria

Ghania Brahimi, A. L. Rebouh, S. Ait Seddik, S. Amrit, H. Ould Baba Ali, D. Toauti, Z. Bouchene, R. Belkaid

<sup>1</sup>CHU de Béni Messous, ALGER, Algeria

**Correspondence:** Ghania Brahimi

*Antimicrobial Resistance and Infection Control* 2017, **6(Suppl 3)**:P231

**Introduction:** The patient's endogenous source is mostly involved in the occurrence of surgical site infections<sup>1</sup> (SSI). Exogenous contamination is less frequent.

**Objectives:** - Determine the incidence of SSI in Caesarean parturient - Identify the causative germs.

**Methods:** This is a prospective cohort study with real-time data collection, including Caesarean parturients from 01 February to 30 May 2014 and 2015. The follow-up with phone calls was provided up to +30 days. In case of suspicion of an SSI, samples for cytobacteriological examination of the liquid coming from the superficial or deep part of the incision have been realized. The data was entered and evaluated using Epi info6 software.

**Results:** The incidence rate in 2014 is 16.72% (52/311) and 4.7% (14/300) in 2015. Third generation cephalosporins were used in 87.2% (472/541) for antibiotic prophylaxis. The SSI occurred after the exit of the parturients in 72.7% of the cases, 42 (63.6%) cases benefited cytobacteriological analysis from purulent secretions. The examination returned positive in 43% (18/42) of the cases, 57% (24/42) were decapitated (sampling after an average delay of antibiotic therapy of  $6.9 \pm 2.8$  days). 20 germs were isolated, predominantly mono-microbial (88.9%), 65% were Gram-positive cocci: staphylococcus aureus accounted for 45% of the isolated germs including MRSA followed by Streptococcus agalactiae in 20%, no strain of staphylococcal coagulase has been found. Gram-negative bacilli represent 35%: 71.4% are enterobacteriaceae, 40% of which are extended-spectrum beta-lactamase (ESBL), Escherichia coli was isolated in 10%, the same for pseudomonas aeruginosa (without any resistance).

**Conclusion:** The endogenous flora is responsible for the majority of documented SSI, whether through poor skin preparation or aseptic error, but the emergence of ESBL is linked to the use of broad-spectrum antibiotics. This requires clinical, microbiological and therapeutic vigilance in view of their specific resistance profile to antibiotics.

#### References

<sup>1</sup>Astagneau

P, L'Héritau F, Daniel F, et al. Reducing surgical site infection incidence through a network: results from the French ISO-RAISINsurveillance system. *J Hosp Infect.* 2009 Jun;72(2):127-34.

#### Disclosure of Interest

None Declared

#### P232

##### Incidence of surgical site infection in postoperative patients at a tertiary care hospital in Tunisia

Sihem Ben Fredj, Hela Ghali, Mohamed Ben Rejeb, Salwa Khefacha, Houyem Said latiri

Prevention and Security of Care, University Hospital Of Sahloul, Faculty of Medicine of Sousse, Sousse, Tunisia

**Correspondence:** Sihem Ben Fredj

*Antimicrobial Resistance and Infection Control* 2017, **6(Suppl 3)**:P232

**Introduction:** Surgical Site Infections (SSIs) are among the most harmful complications that occur after surgery. It has been generally found that developed nations tend to have lower incidence of SSIs