

were available for further next generation sequencing. Assembled genomes were analysed (core genome MLST by SeqSphere+, Ridom; ResFinder analysis).

**Results:** A total of 55 patients (30♂;25♀) aged 0–81 years ( $M=15.4\pm 16.9$ ;  $MD=10$ ), with an *S. aureus* strain with *lukS* gene were recorded (34 patients with PVL-MSSA; 21 with PVL-MRSA). In 10 patients, rehospitalization was necessary due to recurrent infections caused by PVL-positive *S. aureus* strains. After positive *lukS* gene detection, decolonization was performed in 9 individuals, no decolonization was performed in 39, and no information was available for 7 individuals. Infections occurred most frequently on the buttocks ( $N=10$ ) and thighs ( $N=8$ ). A high clonal diversity was detected comprising 16 cgMLST types of PVL-positive *S. aureus*. 5 small clusters were identified, however transmissions were confirmed in only one cluster (tempo-spatial overlap).

**Conclusion:** Epidemiologically, an endemic situation with PVL-positive *S. aureus* and few transmissions were identified in this study. Active surveillance is nevertheless necessary to identify a cluster of PVL-positive cases and possibly an outbreak and to guide therapy and infection control measures.

**Disclosure of Interest:** None declared.

#### Poster Session: Surgical site infections

##### P069

#### Experimental study of the pharmacological activity of the combined use of decamethoxin and bupivacaine at local injection into the wound

Y. Babina<sup>1,\*</sup>, O. Nazarchuk<sup>2</sup>, D. Dmytriiev<sup>1</sup>

<sup>1</sup>Department of anesthesiology and intensive care, <sup>2</sup>microbiology, National Pirogov Memorial Medical University, Vinnytsia, Ukraine

**Correspondence:** Y. Babina

**Antimicrobial Resistance & Infection Control 10(1): P069**

**Introduction:** High risk of infections in surgery is associated with microbial contamination by conditionally pathogenic microorganisms of *Staphylococcus aureus*.

**Objectives:** Investigation of the efficacy of combined administration of antiseptic and local anesthetic in the area of postoperative infectious wounds.

**Methods:** Fifty-one male rats weighing 250–300 g were randomly divided into four groups. Surgical procedures were performed under general anesthesia (intraperitoneal injection of ketamine 75 mg/kg<sup>-1</sup>). The hair on the back of the animal was shaved after loss of corneal reflex and reaction to the retraction of the limbs. The wounds were infected with an additional culture of clinical strain *S. aureus* 47 (dose 108 CFU/ml). The incision was cleaned and two minutes later wiped dry. The incision sites were infiltrated subcutaneously with doses of 3 ml of the study drug: normal saline in the control group (group A,  $n=13$ ), antiseptic decamethoxine (gr.B,  $n=13$ ), 0.5% bupivacaine y (gr.C,  $n=13$ ) and combinations thereof in a ratio of 1:1 (gr.D,  $n=12$ ). The effectiveness of antiseptic treatment in the wound area was evaluated using von Frey filaments. Statistical processing was performed using standard biometric methods. Differences at  $p<0.05$  were considered significant.

**Results:** On the third day of the experiment the number of *S. aureus* on the surface of the wounds was found to decrease significantly when decamethoxin and its combination with bupivacaine 0.5% were used. The use of bupivacaine 0.5% was accompanied by the moderate microbial invasion in the wound area on the 3rd day. The use of the antiseptic and its combination with bupivacaine on the 10th day revealed almost complete eradication of *S. aureus* on the wound surface, in compared the control group ( $p<0.01$ ). In the combination antiseptic with bupivacaine the pain sensitivity threshold increased by 48.6%, which was practically the same as in bupivacaine monotherapy (48.9%).

**Conclusion:** The combination of antiseptic with bupivacaine 0.5% in the treatment of wounds is accompanied by an equally high antimicrobial efficacy with a marked anesthetic effect, which opens the prospect of their combined topical application in the treatment of wounds.

**Disclosure of Interest:** None declared.

##### P070

#### Reluctance for implementing surgical skin preparation guidelines: infection control practitioners' opinion

D. Verjat-Trannoy<sup>1,\*</sup>, C. Daniel<sup>1</sup>, J. Sambourg<sup>1</sup>, K. Lebascle<sup>1</sup>, P. Astagneau<sup>1</sup>  
<sup>1</sup>CPIAS ILE-DE-FRANCE, PARIS, France

**Correspondence:** D. Verjat-Trannoy

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**Introduction:** In the context of a new national surgical site infection (SSI) control program, a study was implemented to evaluate what infection control practitioners (ICP) think about pre-operative skin preparation (PSP) recommendations, updated in 2013 and 2016.

**Objectives:** The aim of the study was to quantify the integration of the infection control (IC) measures in the local protocols and the potential obstacles for their implementation by surgical teams.

**Methods:** In 2020, a national on-line questionnaire was addressed to all ICP working in a healthcare facility (HCF) with surgical activity. Data included the ICP opinion on 8 measures of PSP (cf. table). A descriptive statistical analysis of closed responses (Y/N) was completed by a verbal analysis over the ICP comments.

**Results:** A total of 485 HCF participated to the study (public: 47%/private: 53%; representative of the distribution of HCF with surgery). Two first obstacles were identified: 1-the unfavorable opinion of ICP about the guidelines 2-the impossible agreement between ICP and surgical teams or in between surgical teams.

Type of IC measures	IC Measures for PSP	Measures integrated in the HCF protocol (% of HCF)	Main obstacle identified for non-integration of the PSP measures (% of HCF)
Measures modified to improve infection control (priority)	Use of an alcoholic antiseptic product	94%	None
	No systematic hair removal	85%	Force of habits (55%)
	No systematic use of impregnated adhesive drapes	35%	Force of habits (nc)
Minimum measures to guaranty infection control without spending too much money or time	Non-antiseptic soap at shower time	62%	Lack of medicalization of care (33%)
	Single shower	54%	Concern about increase of SSI (41%)
	Shampooing limited to head and neck surgery	48%	Preference for harmonized measure (36%)
	Skin cleaning limited to visible soiling	35%	Concern about increase of SSI (32%)
	Non-antiseptic soap for skin cleaning	23%	Force of habits (36%)

**Conclusion:** Our results showed a good integration of priority measures in healthcare protocols, except for impregnated adhesive drapes. As obstacles to implementation varied according to PSP measures, training and communication efforts should focus first on key measures where ICP and surgical teams are the most reluctant.

**Disclosure of Interest:** None declared.

##### P071

#### The effect of statin medication on surgical site infections or other complications needing revisions after orthopedic surgery

I. Uçkay<sup>1,\*</sup>, I. Unterfrauner<sup>1</sup>, M. Olthof<sup>1</sup>, P. Jans<sup>1</sup>

<sup>1</sup>Balgrist University Hospital, Zürich, Switzerland

**Correspondence:** I. Uçkay

**Antimicrobial Resistance & Infection Control 10(1): P071**

**Introduction:** Statins have anti-inflammatory properties. In several surgical disciplines, statin medication seems to be preventive of various postoperative complications.

**Objectives:** The intention was to investigate if a long-term perioperative statin medication, primarily given for cardiovascular disorders, might affect rates of surgical site infections (SSI), or other late non-infectious complications after orthopedic surgeries.

**Methods:** A single-center cohort of 20,088 patients (median age 53 years, 49% females, 5% diabetes) who underwent orthopedic