

Background. Spinal fusion surgical site infections (SSI) increase morbidity, length of stay, readmissions and cost compared with those who do not develop an SSI. Initiatives aimed at improving spinal fusion care and reducing SSI are essential.

Methods. In a large metropolitan teaching hospital that performs 1,352 fusions annually, a multidisciplinary team consisting of infection prevention (IP), neurosurgeons, a performance improvement specialist, administration, and postoperative nursing staff was convened to discuss fusion SSI prevention best practices. The SSI prevention team focused on improving chlorhexidine (CHG) bathing compliance in preoperative areas and appropriate alcohol containing skin preparation compliance, developing a postoperative power plan, implementing CHG bathing postoperatively and standardizing postoperative wound care. Compliance with CHG bathing and alcohol containing skin prep was monitored, dressing audits were completed and compliance with all process measures was fed back to the stakeholders. Rates of fusion SSI pre-intervention (January 2017 thru June 2018) were compared with postintervention (July thru December 2018).

Results. From July 2018 to December 2018, compliance with CHG bathing in the preoperative area increased from 81% to 92% and compliance with the use of alcohol containing skin preparation agent improved from 83% to 94%. Postoperative daily CHG bath x 10 days was implemented January 2018 with 72% compliance. With the efforts of the multidisciplinary team, Fusion SSI decreased from 1.43 to 0.75 per 100 fusion surgeries (Risk Ratio 0.52, 95% CI 0.18 -1.27, p-value 0.17) pre vs. post-intervention. This correlated to a Standardized Infection Ratio (SIR) decrease from 1.43 to 0.73. There was a concomitant trend toward decreased observed: expected (O: E) 30-day readmission (1.05 pre vs. 0.98 post) during the same time frame.

Conclusion. An interdisciplinary team developed spinal fusion bundle consisting of CHG bathing pre and postoperatively, alcohol containing skin preparation agent, and standardized postoperative dressing care resulted in a trend toward decreased fusion SSIs. Further data are needed to determine whether the improvement in process measures and outcomes is sustainable and significant.

Disclosures. All authors: No reported disclosures.

1251. Determinants of Infection at a Nontransplanting Cardiothoracic LVAD Program

Alexander Milgrom, MD¹; Amanda Collins, MSPH²; J. Aaron Grubbs, MD¹; Caroline Derrick, PharmD³; Kristin Logan, BS¹; William Edelson, BS¹; Stephany Branham, FNP²; Andrew Mardis, PharmD³; Jeffrey Martin, MD²; Sharon Weissman, MD⁴; ¹University of South Carolina School of Medicine, Columbia, South Carolina; ²Prisma Health Heart Hospital, Columbia, South Carolina; ³University of South Carolina Department of Infectious Disease, Columbia, South Carolina; ⁴University of South Carolina, Columbia, South Carolina

Session: 147. HAI: Surgical Site Infections

Friday, October 4, 2019: 12:15 PM

Background. Left ventricular assist devices (LVADs) are a treatment option for end-stage heart failure, traditionally used as a bridge to a transplant. However, LVADs as a destination therapy is an option for individuals with contraindications for transplant. Infections are a common and devastating complication with significant morbidity and mortality. The purpose of this study was to assess the impact of risk factors for LVAD-associated infections in a nontransplant LVAD center.

Methods. All patients with implanted LVADs from 2013–2018 at Prisma Health were screened for inclusion. LVAD-associated infection was defined using INTERMACS criteria. Patient characteristics and device characteristics were evaluated for infection risk. Time to infection and associated mortality were also analyzed.

Results. Fifty-four of 138 (39.1%) patients developed an LVAD infection (drive-line infection, or bacteremia). Mean time to infection among those who experienced infections was 7.78 months, with a standard deviation of 9.58 months. Table 1 summarizes baseline patient characteristics. HeartWare devices, compared with HeartMate II, were at an increased risk of infections and had a shorter time to infection (Figure 1) (HeartWare vs. HeartMate II, HR 2.12, $P = 0.01$). Those with a BMI of ≥ 35 kg/m² were found on average to have a number of infections 0.729 greater than those with a BMI < 35 kg/m² ($P = 0.01$). Prealbumin, A1C, and chronic kidney disease (any stage) were not found to be associated with infection. *Staphylococcus aureus* (21, 18.26%), *Pseudomonas aeruginosa* (24, 20.87%), and *Staphylococcus epidermidis* (22, 19.13%) were the most common organisms identified.

Conclusion. In an LVAD center where the majority of patients received LVAD as destination therapy, infection rates were similar as those receiving LVAD as a bridge to transplant. Modifiable risk factors for infection are areas for future interventions and prevention efforts.

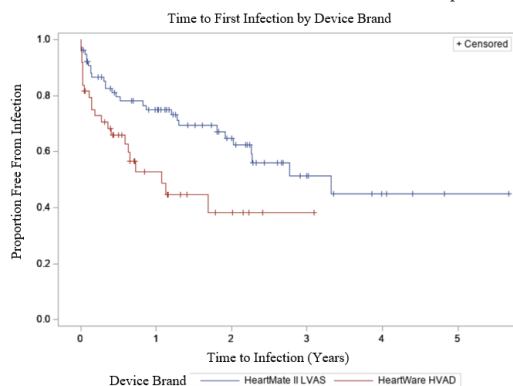


Table 1. Baseline Characteristics

Characteristic	Frequency	Percent	
Infection	None	84	60.9
	At Least One	54	39.1
Number of Infections	0	84	60.9
	1	27	19.6
	2	17	12.3
	3	3	2.2
	4	4	2.9
	5	2	1.5
	6	1	0.7
Device Brand*	HeartMate II LVAS	78	56.5
	HeartWare HVAD	49	35.5
BMI	<35	110	79.7
	≥ 35	28	20.3
CKD	No	109	79.0
	Yes	29	21.0
INTERMACS Level	1-2	32	23.4
	3-5	105	76.6
Sex	Female	49	35.5
	Male	89	64.5
Race*	African American	69	50.7
	White	67	49.3
Education Level	Grade or High School	69	52.3
	Some College or Technical School	34	25.8
	Associate, Bachelor, or Graduate Degree	29	22.0
Admitting Diagnosis	VAD Placement	74	53.6
	Non-VAD Placement	64	46.4
Device Strategy	Destination Therapy	110	81.5
	Bridge to Transplant or Bridge to Candidacy	25	18.5
Mean (\pm Standard Deviation)			
Length of Follow-Up (years)	Infection Event	7.8 (\pm 9.6)	
	No Infection Event	17.2 (\pm 15.2)	
A1C		6.5 (\pm 1.6)	
Prealbumin		18.8 (\pm 7.7)	
Age		58.7 (\pm 12.8)	

*Participants belonging to other variable categories were excluded.

Disclosures. All authors: No reported disclosures.

1252. Development of a Surgical Site Infection at a Tertiary Hospital in Colombia: A Clinical and Microbiological Profile

Marta Vallejo¹; Diana Cuesta²; Luz E Florez³; ¹Universidad Pontificia Bolivariana, Hospital General de Medellín, Medellín, Antioquia, Colombia; ²Universidad Pontificia Bolivariana, Medellín, Antioquia, Colombia; ³Hospital General de Medellín, Medellín, Antioquia, Colombia

Session: 147. HAI: Surgical Site Infections

Friday, October 4, 2019: 12:15 PM

Background. Surgical site infections (SSIs) are the most common healthcare-associated infections in developing countries, it represents a problem of patient safety and as well as evidence of quality of care. The objective of the study was to estimate the incidence of SSIs in surgical procedures of the surgical service, the microbiological profile and clinical evolution of patients.

Methods. Design: A retrospective, longitudinal cohort study using electronic health record data. Settings: Conducted between January and December of 2017 at tertiary hospital in Medellín, Colombia. Participants: Patients whose primary surgical procedures of gastrointestinal surgeries and abdominal wall hernias were included and followed up for 30 days after discharge. Main outcome measures: demographics, surgical risk scale, surgical procedures data, SSI according to NHSN-CDC criteria, microbiological isolates and clinical outcomes were registered and descriptive measures were obtained.

Results. There were 546 clinical charts analyzed, 55% were women, the mean age was 47 years (SD: 21), 74% at intermediate or high surgical risk. Antibiotic prophylaxis was administered at least 120 minutes before the incision and the cefazolin + metronidazole scheme was the most frequent to 70% of the patients. The incidence of SSIs was 12% (64/546), 1% superficial incisional SSIs, 3% deep incisional SSIs and 8% organ / space. Among them, 52% were NHSN-2, 55% had dirty wounds and 43% contaminated. *E. coli* were isolated in 16% (7/10 were BLEE+), *S. aureus* in 10% (all MRSA-). SSI was more frequent in laparotomy due to intra-abdominal infection in 36%, 20% colectomy, and 19% appendectomy. The SSIs were treated in 27% with imipenem and 19% imipenem + vancomycin, for a median of 7 days (p25-p75: 7–10); 36% of the patients with SSIs underwent percutaneous drainage, 30% have been reoperated, 34% were unplanned readmission and 9% died, only two death were attributable to SSIs; the median of length of post-procedure stay days was 12 (p25-p75: 7–23) and overall 14 (p25-p75: 8–32).

Conclusion. The incidence of SSIs was higher than reported in the literature, perhaps due to the greater complexity and risk of the patients. It is necessary to implement preventive strategies in health personnel in order to reduce their incidence and complications.

Disclosures. All authors: No reported disclosures.

1253. Sex-on-Premise Venue (SOPV) Attendance Among Men Who Have Sex with Men (MSM) in Lima, Perú: Results From a Cross-Sectional Web-Based Survey

Alexander Lankowski, MD¹; Hugo Sanchez, BA²; Jose Hidalgo, MD³; Robinson Cabello, MD⁴; Ann Duerr, MD, PhD, MPH⁵; ¹University of Washington,