on objective clinical criteria (i.e., presence of systemic and local signs of infection and use of antifungals ≥10 days) or non-IFI wounds if they failed to meet clinical criteria.

**Results.** Of 1932 subjects, 246 (12.7%) had laboratory evidence of fungal infection. There were a total of 143 IFI wounds (n = 94), 157 non-IFI wounds (n = 96), and 113 high suspicion wounds (n = 56). IFI subjects had significantly higher injury severity scores (ISS median: 39.5 vs. 33); Sequential Organ Failure Assessment (SOFA) scores (7 vs. 2) and were more likely to require mechanical ventilation (66 vs. 28%). IFI patients also had higher ISS (93 vs. 84% with ISS >25) and SOFA scores (7 vs. 4) compared with the subjects with high suspicion wounds. IFI wounds often grew molds belonging to the order Mucorales compared with high suspicion (19 vs. 10%, P = 0.04) and non-IFI wounds (19 vs. 7%, P = 0.02). About half of the IFI wounds grew fungi of the order Mucorales either isolated alone or in conjunction with other fungi, in comparison, 25% of the high suspicion wounds and 11% of the non-IFI wounds grew fungi of the order Mucorales. Three groups of fungi belonging to the order Mucorales, genus Aspergillus and Fusarium accounted for 83% of the IFI wounds and 74% of the high suspicion wounds.

**Conclusion.** Laboratory evidence of fungal infection is common among combat casualties. Clinical characteristics and wound microbiology allows us to group subjects into groups at low and high risk of IFI. Fungi of the order Mucorales, genus Aspergillus, and Fusarium should not be considered contaminants. The presence of these fungi should obligate close clinical follow-up and debridement as needed.

**Disclosures.** All authors: No reported disclosures.

**90. Increasing Kingella Identification in Bone and Joint Infections in Young Children**

Rachel Quick, RN, MSN, CNS1; John Williams, MD2; Peter Cosgrove, MBBCBBAO; Kyle Kahlden, MD3; Marisol Fernandez, MD4; Lynn Thoreson, DO5; Sarmistha Hauger, MD6; Pediatric Infectious Diseases, Seton Healthcare Family, Austin, Texas; University of Texas at Austin, Dell Medical School, Austin, Texas; Pediatric Orthopedics, Seton Healthcare Family, Austin, Texas; Department of Pediatrics, Seton Healthcare Family, Austin, Texas; Pediatric, Seton Healthcare Family, Austin, Texas

**Session:** 30. It's not just Bones: Skin and Bones

**Background.** Kingella kingae is an increasingly recognized pathogen among young children with bone and joint infections. Antibiotics given to cover methicillin-resistant Staphylococcus aureus are not effective against Kingella, and necessitate additional empiric antibiotics in this age group. Improving Kingella identification can narrow antibiotic choices and improve efficacy for long-term oral therapy.

**Methods.** We implemented a bone and joint infection guideline at a free standing children's hospital that called for early imaging, focal sampling, and polymerase chain reaction (PCR) testing for culture-negative specimens. The goal was to increase identification of Kingella and other pathogens to improve targeted antimicrobial therapy. Children 6 to ≤ 60 months of age with uncomplicated acute hematogenous osteomyelitis or septic arthritis between January 1, 2009–December 31, 2016, were included in this study. Outcomes of bacterial identification were measured.

**Results.** Charts for 49 cases that met criteria were reviewed. Prior to the algorithm, we identified Kingella in 4% (1/25) of cases. Following routine use of updated sampling and testing techniques, including PCR testing, Kingella kingae identification increased to 28% of cases (7/24; P = 0.02) and, in fact, was the predominant pathogen identified in this age group.

**Conclusion.** Identification of Kingella was enhanced as a result of changes to sampling and testing, including PCR testing (Figure 1). Post-implementation, Kingella was more commonly identified than Staphylococcus aureus. Widespread availability of PCR isolates were identical in 135 patients (95.7%, 135/141). Excluding the four anaerobic isolates were identical in 135 patients (95.7%, 135/141). Excluding the four anaerobic organisms were isolated from both blood and tissue cultures by retrospective review of isolates from blood and tissue cultures were compared with each other.

**Results.** Among 141 patients with pyogenic spondylitis in whom micro-organisms were isolated from both blood and tissue cultures by retrospective review of medical records in three tertiary university-affiliated hospitals between January 2005 and December 2015. The species and antimicrobial susceptibility patterns of isolates from blood and tissue cultures were compared with each other.

**Conclusion.** We suggest that a positive blood culture from patients with pyogenic spondylitis could preclude the need for additional tissue cultures, especially when S. aureus and streptococci grew in blood cultures.

**Disclosures.** All authors: No reported disclosures.

**92. Concordance of Results of Blood and Tissue Cultures from Patients with Pyogenic Spondylitis**

Ji Yun Bae, MD1; Chung Jong Kim, MD1; Uh Jin Kim, MD2; Kyung-Ho Song, MD3; Eun Sok Kim, MD4; Seong Jh Kang, MD5; Myoung Don Oh, MD PhD1; Kyung Hwa Park, MD6; Nam Jong Kim, MD, PhD7; Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Korea, Republic of South; 2Chonnam National University Medical School and Hospital, Gwangju, Korea, Republic of South; 3Department of Infectious Diseases, Chonnam National University Medical School and Hospital, Gwangju, Korea, Republic of South

**Session:** 30. It's not just Bones: Skin and Bones

**Background.** The aim of this study was to investigate the concordance of results of blood and tissue cultures in patients with pyogenic spondylitis.

**Methods.** We searched the patients with pyogenic spondylitis in whom micro-organisms were isolated from both blood and tissue cultures by retrospective review of medical records in three tertiary university-affiliated hospitals between January 2005 and December 2015. The species and antimicrobial susceptibility patterns of isolates from blood and tissue cultures were compared with each other.

**Results.** Among 141 patients with pyogenic spondylitis in whom micro-organisms were isolated from both blood and tissue cultures, the species of blood and tissue isolates were identical in 135 patients (95% confidence interval (CI)): 135/141). Excluding the four anaerobic isolates, we investigated antimicrobial susceptibility patterns of 131 isolates of same species from blood and tissue cultures. Antibiotic susceptibility patterns were identical in 128 patients (97.7%, 128/131). The most common isolates were Staphylococcus aureus (86 patients; 85 concordant and 1 discordant), followed by streptococci (24 patients; 22 concordant and 2 discordant), and Escherichia coli (8 patients; all concordant).

**Conclusion.** We suggest that a positive blood culture from patients with pyogenic spondylitis could preclude the need for additional tissue cultures, especially when S. aureus and streptococci grew in blood cultures.

**Disclosures.** All authors: No reported disclosures.

**Table 1. Micro-organisms isolated from blood and tissues in 135 patients with pyogenic spondylitis**

| Micro-organisms isolated from blood and tissues in 135 patients with pyogenic spondylitis |
|---------------------------------|---------------------------------|
| Staphylococcus aureus | 85 |
| Viridans streptococci | 11 |
| Streptococcus agalactiae | 8 |
| Escherichia coli | 8 |
| Enterococcus fecalis | 4 |
| Klebsiella pneumonia | 2 |
| Other | 17 |
| Discordant (n = 6) | Blood |
| Coagulase-negative staphylococcus | 8 |
| Streptococcus constellatus, Actinomyces meyeri | 2 |
| Staphylococcus epidermidis, viridans streptococci | 17 |
| Staphylococcus aureus, Nontuberculosis mycobacteria | 8 |

Figure 1. Bacterial identification pre and post guideline among children aged 6–60 months.