Conclusion. Novel solutions that aim to reduce empiric therapy, or shorten the interval to treatment success, are critical for both diagnostic and antibiotic stewardship. Through parallel or sequential testing algorithms, panel testing schematics on either the cobas® 4800 and 6800 Systems allow for more accurate discrimination between GU etiologies. These assays have the potential to reduce unnecessary antibiotic use in the outpatient and inpatient settings. Inappropriate antimicrobial use in the outpatient and inpatient settings. Inappropriate antimicrobial or differential development of resistance after infection. Continued surveillance of multi-site infections could help understand resistance development and inform patient management.

Disclosures. All authors: No reported disclosures.

439. Iliopsoas Abscess in Egyptian Patients Presenting to Cairo University Hospitals

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Session: 51. Soft Tissue and Skin Infections
Thursday, October 3, 2019: 12:15 PM

Background. The incidence of iliopsoas abscess (IPA) is rare but the frequency of this diagnosis has increased with the use of ultrasonography and computed tomography (CT). The vague presentation leads to delays in diagnosis and increases morbidity. Managing iliopsoas abscess is still forming a therapeutic challenge. The aim of this research was to study the features of iliopsoas abscess cases including the etiology and clinical presentation.

Methods. Patients and Methods. All patients presented to the orthopedic outpatient clinic (Cairo University hospitals) by back pain were screened by plain X-ray and ultrasound (US). The confirmed patients were diagnosed with IPA by having pus or iliopsoas collection and subjected to: full history taking, full laboratory workup, screening for tuberculosis, radiological studies and ultrasound-guided needle aspiration of the abscess. The aspirate samples were microbiologically tested by culture (aerobic, anaerobic and MGIT) and PCR technique. Follow-up US was done within 7 days from the first aspiration.

Results. The outpatient clinic received 40 thousand back pain cases during one-year study. Only 14 patients were diagnosed as IPA. The age ranged 19–65years (mean 37years) and 57% were male. 44.4% patients had primary IPA while 55.5% patients had secondary IPA. All patients had limping and flank pain, backache or both. Fever was common 90% of patients. Leukocytosis was found in 55.5% of patients, ESR was elevated and CRP was positive in all patients. Z.N stain for AFB was negative in all patients. CT-Guided aspiration of the abscess. The aspirate samples were microbiologically tested by culture (aerobic, anaerobic and MGIT) and PCR technique. Follow-up US was done within 7 days from the first aspiration.

Conclusion. Although IPA is rare, the appropriate diagnostic by US is needed. S.aureus is the commonest pathogen but Mycobacterial tuberculosis could be a cause for recurrence. The incidence of iliopsoas abscess (IPA) is rare but the frequency of this diagnosis has increased with the use of ultrasonography and computed tomography (CT). The vague presentation leads to delays in diagnosis and increases morbidity. Managing iliopsoas abscess is still forming a therapeutic challenge. The aim of this research was to study the features of iliopsoas abscess cases including the etiology and clinical presentation.

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Conclusion. Although IPA is rare, the appropriate diagnostic by US is needed. S.aureus is the commonest pathogen but Mycobacterial tuberculosis could be a cause for recurrence. The incidence of iliopsoas abscess (IPA) is rare but the frequency of this diagnosis has increased with the use of ultrasonography and computed tomography (CT). The vague presentation leads to delays in diagnosis and increases morbidity. Managing iliopsoas abscess is still forming a therapeutic challenge. The aim of this research was to study the features of iliopsoas abscess cases including the etiology and clinical presentation.

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use for SSTI is common. We determined the prevalence of SSTI and associated inappropriate antimicrobial use among inpatients in Sri Lanka.

**Methods.** A point-prevalence study of antimicrobial use was conducted using one-day cross-sectional surveys at five public hospitals in Southern Province, Sri Lanka from Jun-August 2017. Inpatients’ medical records were reviewed for clinical data including antimicrobials prescribed. Inappropriate antimicrobial use was identified as (1) antimicrobial use discordant with guidelines by the Sri Lanka College of Microbiologists (SLCM), and (2) redundant combinations of antimicrobials.

**Results.** Of 1,709 surveyed patients, 935 (54.7%) received antimicrobials, of whom 799 (83.3%) had a specified or inferred indication for antimicrobial use. Among patients with an indication for antimicrobial use, SSTI was the second leading indication (181 patients, 23.2%) after lower respiratory tract infection (194, 24.9%). One-third (62, 34.2%) of patients with SSTI had a history of diabetes. Commonly used antimicrobials for SSTI included amoxicillin and clavulanic acid (40.3%), extended-spectrum penicillins (24.9%), and meropenem (22.1%), inappropriate antimicrobial use was observed in 53.0% of SSTI patients, with redundant antibiotic therapy in 35.9% and antimicrobials discordant with SLCM guidelines in 32.6%.

**Conclusion.** SSTI was a common reason for antimicrobial use among inpatients in Sri Lanka, with more than half of patients receiving potentially inappropriate antimicrobial therapy. We identified targets for future antimicrobial stewardship efforts.

**Table 1:**

| Antimicrobials used for UTI | N (%) | Number of patients (%) receiving antimicrobials not recommended by the Guidelines | Number of patients (%) receiving redundant antimicrobials | Total patients receiving antimicrobials |
|---------------------------|-------|---------------------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------|
| Co-amoxyclav              | 37 (40.3) |                                                                                  |                                                         |                                         |
| Extended-spectrum penicillins | 45 (22.6) |                                                                                  |                                                         |                                         |
| Meropenem                 | 40 (22.0) |                                                                                  |                                                         |                                         |
| Cindamycin                | 40 (22.0) |                                                                                  |                                                         |                                         |
| Third-generation cephalosporins | 25 (13.3) |                                                                                  |                                                         |                                         |

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

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437. Gram-Negative Rod Skin and Soft-tissue infections following Breast Tissue Expander Surgery in Breast Cancer Patients

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**Session:** 51. Soft Tissue and Skin Infections

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**Background.** Breast cancer patients who undergo tissue expander surgery (TES) are at an increased risk of developing gram-negative rod (GNR) skin and soft-tissue infection (SSTI) and its complications including prolonged antibiotic therapy, antibiotic side effects, and implant removal. Current perioperative antimicrobials focus mostly on gram-positive organisms, but the presence of a foreign body increases the risk of SSTI. We conducted a retrospective cohort study at Moffitt Cancer Center, Tampa, FL from January 2016, to January 2018, on all breast cancer patients who developed GNR SSTIs following TES.

**Methods.** We reviewed records after approval from the Institutional Review Board. The data collected included patient’s age, pathogens identified. The 3 most common pathogens were Acinetobacter baumannii (8%), Enterobacter cloacae, Enterobacter aerogenes, Morganella morganii, and Morganella morganii, and Klebsiella pneumoniae (8%) (Figure 1). The susceptibility patterns were available for 33 cases. Pseudomonas aeruginosa, the most commonly isolated (45%). The use only of cefazolin or other antibiotics against gram-positive organisms may be inadequate. However, GNR infection may occur from 48 hours to 2 weeks postoperatively and may be from the acquisition of the GNR at home in which perioperative antibiotics may have minimal effect.

Figure 1. Gram-Negative Rod Pathogens Isolated from Wound Cultures Among Breast Cancer Patients Who Developed Skin and Soft Tissue Infection following Breast Reconstructive Surgery, Moffitt Cancer Center, Tampa, 2016-2018. n=38 (%)

**Results.** Of 1,709 surveyed patients, 935 (54.7%) received antimicrobials, of whom 799 (83.3%) had a specified or inferred indication for antimicrobial use. Among patients with an indication for antimicrobial use, SSTI was the second leading indication (181 patients, 23.2%) after lower respiratory tract infection (194, 24.9%). One-third (62, 34.2%) of patients with SSTI had a history of diabetes. Commonly used antimicrobials for SSTI included amoxicillin and clavulanic acid (40.3%), extended-spectrum penicillins (24.9%), and meropenem (22.1%), inappropriate antimicrobial use was observed in 53.0% of SSTI patients, with redundant antibiotic therapy in 35.9% and antimicrobials discordant with SLCM guidelines in 32.6%.

**Conclusion.** SSTI was a common reason for antimicrobial use among inpatients in Sri Lanka, with more than half of patients receiving potentially inappropriate antimicrobial therapy. We identified targets for future antimicrobial stewardship efforts.

**Table 1:**

| Inappropriate antimicrobial use | Non. | No. | Pvalues |
|--------------------------------|------|-----|---------|
| Tertiary level hospital       | 66 (68.75) | 54 (53.55) | <0.01 |
| Secondary level hospital      | 21 (21.88) | 21 (21.37) | <0.01 |
| Primary level hospitals       | 9 (9.57) | 4 (4.71) | <0.01 |
| Overall                       | 96 (100.0) | 85 (85.00) | <0.01 |
| Medical wards                 | 28 (29.17) | 23 (23.06) | <0.01 |
| Surgical wards                | 65 (67.71) | 60 (60.71) | <0.01 |
| Pediatric wards               | 1 (1.04) | 1 (1.08) | <0.01 |
| Intensive care units          | 2 (2.08) | 2 (2.08) | <0.01 |
| Overall                       | 96 (100.0) | 85 (85.00) | <0.01 |

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

438. Dalbavancin Clinical Experience at an NCI Designated Cancer Center

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**Session:** 51. Soft Tissue and Skin Infections

**Thursday, October 3, 2019: 12:15 PM**

**Background.** Dalbavancin (DAL) is a long-acting lipoglycopeptide, which allows for up to 2 weeks of therapy from a single dose. Outside of its FDA-approved indication for the treatment of acute bacterial skin and skin structure infections (ABSSSI), there is a growing interest in the utilization of DAL for other indications, including catheter-related bloodstream infection (CRBSI). The long-acting formulation potentially facilitates patient discharge or admission deferral without the need for daily outpatient parenteral antimicrobial therapy (OPAT). However, there is limited experience reporting DAL utilization in an oncology population. The objective of this study was to report our experience with DAL in an oncology patient population at a National Cancer Institute (NCI) Designated Cancer Center.

**Methods.** We conducted a retrospective review of all patients receiving DAL therapy in June 2016–June 2017. The primary outcome was a clinical success at 30 days (complete/partial resolution of symptoms without readmission for a same/similar infection), with secondary outcomes including readmission rate, acute kidney injury (AKI) incidence (Acute Kidney Injury Network [AKIN] criteria) and additional antimicrobial use within 30 days.

**Results.** We identified 76 unique subjects, with 77 unique infectious episodes, receiving 78 DAL doses. The majority of the subjects were male (57%), the median age was 61 years old, 55% had a solid tumor type and most were treated for ABSSSI (86%). Doses were administered inpatient 76% of the time and most patients received 1500 mg (90%). The most common pathogen isolated was Staphylococcus aureus (19%). Patients frequently received additional methicillin-resistant Staphylococcus aureus active oral antibiotics (39%). Clinical success was reported in 78% of infections. Potential DAL-related AKI was identified in 4 subjects (5%).

**Conclusion.** We reported on the use of DAL in a variety of oncology patients at a major cancer center. Clinical success was often achieved in ABSSSI with a single DAL