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# Injection Drug Use and Infectious Disease Practice: A National Provider Survey

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**Table 1. Inclusion/Exclusion criteria**

| Inclusion Criteria   | ICD-9   | ICD-10   |
|--|---|--|
| <b>1) Diagnosis of ABSSSI</b>                                |   |  |
| Surgical site infection                                      | 998.5x  | T81.4%   |
| Posttraumatic wound infection not elsewhere classified       | 958.3x  | -  |
| Cellulitis and abscess                                       | 681.xx, 682.xx  | L03.%  |
| Erysipelas   | 035.xx  | A46.%  |
| Other local infections of skin and subcutaneous tissue       | 686.x   | L08.%  |
| <b>Exclusion Criteria*</b>                                   | ICD-9   | ICD-10   |
| <b>1) Diagnosis of Diabetic Foot Infection</b>               | 680.7, 681.1, 681.10, 682.7, 917.1, 917.3, 917.7, 917.9, 707.1, 707.14-707.19 | L02.6%, S90.41%, S90.42%, S90.45%, S90.81%, S90.82%, S90.85%, I70.234, I70.235, I70.244, I70.245, I70.334, I70.335, I70.344, I70.345, I70.434, I70.435, I70.444, I70.445, I70.534, I70.535, I70.544, I70.545, I70.634, I70.635, I70.644, I70.645, I70.734, I70.735, I70.744, I70.745, L97.4%, L97.5%, E10.621, E11.621 |
| <b>2) Diagnosis of Necrotizing Fasciitis</b>                 | 728.86  | M72.6  |
| <b>3) Diagnosis of Gangrene and Associated Complications</b> | 040.0, 785.4, 440.24  | A48.0, E10.52, E11.52, I70.26%, I70.36%, I70.46%, I70.56%, I70.66%, I70.76%  |
| <b>4) Diagnosis of Metastatic Cancer</b>                     | 196.x, 197.x, 198.x, 198.8x   | C77.%, C78.%, C79.%  |
| <b>5) Hospice**</b>  | --  | --   |
| <b>6) Aetna Compassionate Care Program***</b>                | --  | --   |

\* Exclusions identified from claims with service dates any time in the study period and diagnoses in any diagnostic position  
 \*\* Healthcare financing administration place of service code 34  
 \*\*\* Identified using Aetna's Care Management database

**Table 2. Cost and LOS for inpatients who received LAA and inpatients who were potential outpatient LAA pathway candidates**

|   | Inpatient encounters with LAA use (N=7) | Inpatients encounters without LAA use* (N=6,998) |
|---|---|--|
| Mean allowed cost (SD), \$                | \$14,295 (\$10,209)                     | \$23,194 (\$55,893)                              |
| Cost savings versus without LAA use, \$   | \$8,899                                 | -  |
| Mean LOS (SD), days                       | 4.1 (2.5)                               | 9.0 (14.1)                                       |
| Cost savings versus without LAA use, days | 4.9                                     | -  |

\*Inpatient encounters without LAA use who were considered potential candidates for outpatient IV LAA pathways as described in methods  
 LAA, long acting antibiotic SD, standard deviation LOS, length of stay

**Disclosures.** K. R. Keyloun, Allergan: Employee, Salary N. Bonine, Allergan: Employee, Salary

**1112. Peripherally Inserted Central Catheter Complications in Rural vs. Urban Children Receiving Long-Term Parenteral Antimicrobial Therapy**

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**Background.** Peripherally inserted central catheters (PICC) are used for treating infections requiring prolonged intravenous antibiotic therapy (IVAT) in children. Given the lack of data on rural PICC use as well as the rural nature of our state, we studied the safety of home PICC use for treating infections in children living in rural settings.

**Methods.** We identified children <18 years admitted from January 1, 2005 to March 1, 2014 to the University of New Mexico Hospital (UNMH) through analysis of 43 different ICD-9 and CPT codes indicative of PICC placement, with analysis of the medical record to identify patients discharged on IVAT. All data were entered into REDCap and analyzed on Stata. We recorded demographic data, the antibiotic used, the duration/indication for the PICC, and the type/timing of complications. To classify rural vs. urban residence, we used the rural-urban continuum code (RUCC) from U.S. Census data, and the driving time in hours (h) to the nearest level 1,2 or 3 trauma center and UNMH using MapQuest. All patients had either weekly home health or clinic visits, but none utilized an outpatient parenteral antimicrobial therapy (OPAT) clinic. Linear regression models assessed for differences between outcome and response variables.

**Results.** Of 866 subjects with a PICC, 221 were discharged on IVAT. 134 (60.6%) were boys and 87 (39.4%) were girls (mean age 9.8 years). The mean driving time to the nearest level 1, 2, or 3 trauma center was 0.6 hours (range 0.1–3.0 hours), while the mean driving time to UNMH was 1.3 hours (range, 0.1–5.0 hours). PICCs were utilized for a mean of 26.1 days at home. The most common antibiotics used were tobramycin (n = 41) and nafcillin (n = 40). Osteoarticular infections and cystic fibrosis exacerbations were the most common indications for PICC use (68.8%). 47 children (21.3%) experienced complications associated with their PICC at a mean of 24.7 days from insertion, most commonly occlusion (n = 13, 27.7%) or accidental removal (n = 13, 27.7%). 40 PICCs (18.1%) were removed prematurely due to a complication. No association was found between RUCC's or driving times to UNMH or the nearest level 1, 2 or 3 trauma center with any of these complications nor with complications overall (P = 0.11 to 0.96).

**Conclusion.** Our study demonstrates that home IVAT with a PICC is safe in children in rural locales.

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

**1113. Injection Drug Use and Infectious Disease Practice: A National Provider Survey**

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**Background.** The opioid epidemic has swept across the U.S. at a staggering rate, with an estimated half million to one million persons injecting drugs annually. Rates of hospitalization for injection drug use (IDU)-related infection have risen precipitously, comprising an escalating proportion of infectious diseases provider volume in highly impacted regions.

**Methods.** In March 2017, the Emerging Infections Network surveyed their national network of infectious diseases (ID) physicians to evaluate perspectives relating to the care of persons who inject drugs (PWID), including the frequency of, and management strategies for, IDU-related infection, the availability of addiction services, and the evolving role of ID physicians in the management of addiction.

**Results.** Over half (53%; N = 672) of 1,276 members with an adult ID practice participated; 78% (n = 526) reported treating PWID. Of 526 respondents, 464 (88%) reported seeing ≥1 patient per month with an IDU-related infection; 228 (43%) reported ≥6 per month. In the past year, 79% of respondents reported the majority of IDU-related infections seen required ≥2 weeks of parenteral therapy and reported frequently encountering skin and soft-tissue infections (61%), bacteremia/fungemia (53%), and endocarditis (50%). Strategies most commonly employed for management of prolonged parenteral antibiotic therapy included: completion of entire course on inpatient unit (by 41%) and transfer to supervised facility for completion (35%). Only 35% of respondents agree/strongly agree their health system offers comprehensive treatment of substance use disorders (N = 181). Though nearly half of respondents felt that ID providers should actively manage substance use disorders (46%; N = 241), only 3% reported being waived to prescribe buprenorphine for treatment of opioid use disorder.

**Conclusion.** The majority of infectious diseases physicians frequently care for PWID with serious infections. There is significant diversity amongst providers with regards to the availability of comprehensive addiction services as well as perceptions regarding the role providers should play in the management of addiction. Guidelines for the management of serious infections and concurrent addiction in the midst of the escalating national opioid crisis should be considered.

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

**1114. Implementation of a Standardized Protocol for Hospitalized Patients Who Inject Drugs and Require Long-Term Antibiotics Reduces Length of Stay Without Increasing 30-Day Readmissions**

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**Background.** Injection drug use (IDU) is a growing epidemic, and persons who inject drugs (PWID) are at high risk for infection. IDU is a barrier to outpatient parenteral antimicrobial therapy (OPAT) and provider experience and knowledge may lead to variation in patient care. Recognizing this problem, a multi-disciplinary team implemented a protocol for management of PWID requiring IV antibiotics. The main goals were to standardize the evaluation and risk assessment of PWID with infections and to provide substance abuse counseling and treatment in order to decrease length of stay (LOS).

**Methods.** A protocol was developed outlining the evaluation, diagnosis, risk-assessment, treatment, maintenance, and follow up of PWID requiring prolonged IV antibiotics (Figure 1). Patients meeting inclusion criteria were identified and the multidisciplinary team assessed the patient. ID confirmed the diagnosis and outlined the treatment plan, and addiction medicine performed a 9-point risk assessment. Low-risk patients were discharged to complete OPAT. Medium risk and high-risk patients remained hospitalized and were offered group therapy, opioid replacement therapy if applicable, and were reassessed weekly for discharge. These patients were compared with previously identified PWID requiring antibiotics prior to the protocol implementation.

**Results.** 37 patients pre-protocol were compared with 34 patients following implementation. Demographics were similar except 56% of the post-implementation group were diagnosed with a concomitant psychiatric disorder vs. 27% in the pre-implementation group (P = 0.01). There was no statistical difference between the number of patients who left AMA in either group (13.5 % pre; 23.5% post; p 0.28) or the