Results. A larger proportion of children seen in the ED (27.9%) and UCC (25.2%), then PMD (sick) visits (6.1%), were diagnosed with respiratory infections (P < 0.001). PNA specifically was diagnosed in 8% (71/945) of all ED visits. When parental agents were given in the ED for PNA, ceftriaxone was most frequent: 58% (10/17) vs. 35% for ampicillin. In PMD and UCC, amoxicillin was given in 50% of treated cases (6/12), amoxicillin in 25%, and amoxicillin/clavulinate in 17%. Across the 3 settings, 25% (73/291) of URI received antibiotics; 27% (20/73) did not have a documented co-infection (e.g., otitis media).

Conclusion. Despite general awareness of existing PNA guidelines, non-first-line antibiotic use is frequent across outpatient settings in our area. Also, antibiotics are often given in cases where the primary diagnosis is allergic, when a bacterial etiology is unlikely. Pediatric stewardship efforts should further promote available PNA guidelines and avoid antibiotics for URI, and create educational activities tailored to their local providers.

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284. Antibiotic Usage in the First Year of Life in HIV-Exposed, Uninfected Infants in Malawi: Results From the Breastfeeding, Antiretrovirals and Nutrition (BAN) Study
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Session: 53. Pediatric Antimicrobial and Diagnostic Stewardship
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Background. Antibiotic resistance is a serious health threat driven by overuse. Antibiotic usage in low-income countries is poorly studied. HIV-exposed, uninfected (HEU) infants are a growing population at high risk for infection and resulting antibiotic use.

Methods. We described antibiotic usage among 2,152 HEU infants in the Breastfeeding, Antiretrovirals and Nutrition (BAN) Study in Lilongwe, Malawi, 2004-2016. Antibiotic use was characterized based on draft WHO/UNICEF/Paediatric Formularies and included CPT exposure (hazard ratio (HR): 0.57 [95% confidence interval (CI): 0.52, 0.62]). Factors associated with lower hazard of antibiotic prescription included CPT exposure (hazard ratio (HR): 0.57 [95% confidence interval (CI): 0.52, 0.62]), maternal CD4 T-cell count, HIV viral load, maternal age, and birth weight.

Results. Overall, 80% of HEU infants in the BAN study received an antibiotic prescription during follow-up (median length: 336 days). The majority (67%) of the 5,107 antibiotic prescriptions were for respiratory infections. Pneumococci (43%) were the most commonly prescribed type of antibiotics, followed by salmonellae (23%). The median number of prescriptions received per infant-month was 0.2 (interquartile range (IQR): 0.1, 0.3). Factors associated with lower hazard of antibiotic prescription included CPT exposure (hazard ratio (HR): 0.57 [95% confidence interval (CI): 0.52, 0.62]), maternal CD4 T-cell count, HIV viral load, maternal age, and birth weight. A larger proportion of children seen in the ED (27.9%) and UCC (25.2%), then PMD (sick) visits (6.1%), were diagnosed with respiratory infections (P < 0.001). PNA specifically was diagnosed in 8% (71/945) of all ED visits. When parental agents were given in the ED for PNA, ceftriaxone was most frequent: 58% (10/17) vs. 35% for ampicillin. In PMD and UCC, amoxicillin was given in 50% of treated cases (6/12), amoxicillin in 25%, and amoxicillin/clavulinate in 17%. Across the 3 settings, 25% (73/291) of URI received antibiotics; 27% (20/73) did not have a documented co-infection (e.g., otitis media).

Conclusion. Despite the acuity of the infection, OPAT with IV ceftriaxone for moderate/severe cellulitis in children is efficacious with complications and readmissions no different from hospital care with IV fluocoxacin. Short-term ceftriaxone use in healthy children on OPAT is not associated with increased acquisition of resistant organisms, and has reduced burden of costs to families (ClinicalTrials.gov NCT02334124).

Disclosures. All authors: No reported disclosures.

286. Rapid, One-Tier Diagnosis for Lyme Arthritis
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Session: 54. Bone and Joint Infections
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Background. Lyme disease commonly present as arthritis (LA) and may mimic septic arthritis (SA). SA has worse prognosis and requires hospitalization. LA diagnosis guidelines suggest two-tiered algorithm. Results take 3–5 days to return, putting children at risk by mismanagement. For children with acute arthritis, timely recognition improves quality of care.

Methods. We retrieved charts of children with joint complaint in a Lyme endemic region (January 2011–July 2016). We identified SA and LA and characterized presentations. We reviewed all Lyme [anti-Vls6] chemiluminescent immunoassay screens, (January 2013–January 2017). The study was approved by IRB.

Results. There were 785 charts. SA was found in 24 patients, including 5 with knee arthritis. Seventy-two had confirmed LA, 70 in the knee [fig 1]. Laboratory and physical findings are summarized in Table 1. 2,341 anti-Vls6 screens reviewed. 92% were negative. Of the 88 patients with high levels (≥8), 53% had arthritis (Figure 2).

Conclusions. In children with knee arthritis, LA is 14 times more common than SA. Delayed diagnosis put many children at risk of mismanagement. Physical and laboratory findings may direct clinical suspicion but are limited when differentiating between LA and SA. High value anti-Vls6 screens suggest symptomatic disease and may confirm LA diagnosis within hours. This correlates with the hypothesis of this B. burgdorferi surface protein role in immune evasion, leading to disregulated inflammation.

Figure 1. Study cohorts

Table 1: Laboratory and Physical Findings in Children with Knee SA and Knee LA

|  | Knee SA (n=70) | Knee LA (n=14) |
|---|---|---|
| N | Results (Average) (%) | Results (Average) (%) |
| Peripheral/VBC | 58 | 5–15.8 | 9 | 12.6–15.8 (14.5) |
| Synovial/VBC | 28 | 2–115.8 | 100 | 3–188.8 (85) |
| CRP (mg/dL) | 54 | 0–104.19 | 70 | 3–109.17 (72) |
| ESR ImmunoId | 63 | 3–97.09 | 75 | 3–73.24 (59) |
| Lyme screen CLIA* | 15 | 8.43–12.4 (12) | 100 | 0 + / 0 |
| Lyme WB IgG bands | 66 | 6–150.1 | 100 | 0 + / 0 |
| IgM bands | 65 | 5–10 | 100 | 0 + / 0 |
| Synovial Culture | 26 | 1 + / 25 | 5 | 3 + / 2 |
| Synovial PCR | 21 | 1 + / 10 | 54 | 2 + / 0 |
| Non weight bearing | 70 | 21 + / 49 | 30 | 4 + / 1 |

*Chemiluminescent immunoassay.
**Enzyme-linked immunoassay.