for aminoglycosides and all neonatal antibacterial agents. SAARs were compared using the NHSN Statistics Calculator.

**Results.** For third generation cephalosporins, there were 385 observed antimicrobial days (OAD) and 115 expected antimicrobial days (EAD) in the pre-implementation period compared to 597 OAD and 228 EAD in the post implementation period. This resulted in a SAAR of 3.34 and 2.6, respectively, a reduction of 22% (p < 0.001). For aminoglycosides, there were 713 OAD and 584 EAD compared to 1617 OAD and 1155 EAD. This resulted in a SAAR of 1.22 and 1.4; an increase of 15% (p = 0.002). For all neonatal antibacterial agents, there were 2716 OAD and 1739 EAD compared to 5321 OAD and 3438 EAD. This resulted in a SAAR of 1.56 and 1.55; indicating no change in use (p = 0.70). See Table 1 for results.

Table 1. Antibiotic Use

| Antibiotic Use | Pre-implementation | Post-implementation | Difference | p-value |
|----------------|--------------------|--------------------|------------|---------|
| Aminoglycosides | 385 OAD, 115 EAD  | 334 228            | -22%       | 0.001   |
| Cephalosporins  | 713 OAD, 584 EAD  | 1617 1155          | 1.4        | 0.002   |

**Conclusion.** While this initiative resulted in decreased use of third generation cephalosporins, this was not associated with a decrease in antibiotic use overall. Use of SAARs in the NICU may be helpful in both identifying opportunities to improve antibiotic use and monitoring antibiotic use over time.

**Disclosures:** Steven Smoke, PharmD, Karius (Advisor or Review Panel member)
Shionogi (Scientific Research Study Investigator, Advisor or Review Panel member)

133. A Review of Antimicrobial Formularies at Rural Hospitals: Stewardship Opportunities Abound

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**Session:** P-08. Antimicrobial Stewardship: Special Populations

**Background.** Management of a hospital's antimicrobial formulary is an important aspect of antimicrobial stewardship and cost containment strategies. Ensuring that essential medications for clinical care are available and excluding therapeutic duplicates and unnecessary antimicrobials is time and resource intensive. Comparisons of antimicrobial formularies across multiple rural hospitals have not been evaluated in the literature. We hypothesized that a comprehensive formulary evaluation would reveal important opportunities for antimicrobial stewardship efforts and could help smaller hospitals optimize available medications.

**Methods.** The University of Washington Tele-Antimicrobial Stewardship Program (UW-TASP) is comprised of 68 hospitals of varying sizes, most of which are rural and critical access, in Washington, Oregon, Arizona, Idaho, and Utah. We surveyed UW-TASP participating hospitals and other networked rural hospitals in multiple Western states using REDCap, a HIPAA-compliant, electronic data management program. Respondents reported which antimicrobials are on their hospital formulary as well as basic information about hospital size and inpatient units. Data were reviewed by a panel of infectious diseases trained physicians and pharmacists at UW-TASP.

**Results.** Surveys from 49 hospitals were received; two were excluded from the data analysis (Table 1) - one submission was incomplete, and one was a large inpatient psychiatric hospital. Select antimicrobials and proportion of hospitals carrying these agents is shown in Table 2. Several antimicrobials are on the formulary at all hospitals, regardless of size. In some critical access hospitals (< 25 beds), empiric first-line bacterial meningitis and viral encephalitis coverage (Table 3) was lacking. Six hospitals (12.7%) lacked ampicillin for Listeria coverage and one had a suitable alternative agent (meropenem). Seven hospitals (14.9%) lacked intravenous acyclovir, although three had oral valacyclovir. Formulary inclusion of agents for multi-drug resistant organisms was rare.

**Conclusion.** In critical access hospitals in the Western USA, lack of essential empirical antimicrobials may be more of a concern than inclusion of agents with unnecessarily broad spectra.

**Disclosures.** Chloe Bryson-Cahn, MD, Alaska Airlines (Other Financial or Material Support, Co-Medical Director, position is through the University of Washington)

134. Impact of an Antibiotic Stewardship Treatment and Management Algorithm for Liver Abscesses

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**Session:** P-08. Antimicrobial Stewardship: Special Populations

**Background.** Antibiotic prescribing for pyogenic liver abscess(es) (PLA) is highly variable with literature primarily aimed at assessing surgical intervention with a scarcity of data for antibiotic selection and duration of therapy. Given the lack of data, there is no clear consensus for treatment options or length of treatment. Our Antimicrobial Support Network (ASN) in collaboration with the hepatopancreatobiliary (HPB) team created a treatment and management algorithm to guide duration of therapy and antibiotic selection.

| Table 2. Formulary data | Size of hospital (inpatient beds) | 0-25 | 25-50 | >50 |
|-------------------------|----------------------------------|-----|-------|-----|
| Number of hospitals in the study | 40 | 3 | 4 |

| Aminoglycosides | Gentamicin | 95 | 100 | 100 |
|----------------|-----------|-----|-----|-----|
| Carbenemems | Teicoplanin | 70.5 | 66.6 | 100 |
| Cephalosporins | Amoxicillin | 60 | 100 | 100 |
| Cephalosporins | Ceftriaxone | 100 | 100 | 100 |
| Cephalosporins | Cefotaxime | 70 | 66.6 | 100 |
| Cephalosporins | Cefepime | 85 | 66.6 | 100 |
| Cephalosporins | Cefazolin | 100 | 100 | 100 |

| Fluoroquinolones | Ciprofloxacin | 95 | 100 | 100 |
|----------------|---------------|-----|-----|-----|
| Glycopeptides, Glycopeptidases, and Lipopeptides | Vancomycin | 100 | 100 | 100 |
| Penicillins | Aminocillin | 100 | 100 | 100 |
| Penicillins | Amoxicillin | 100 | 100 | 100 |
| Penicillins | Amoxicillin-clavulinate | 100 | 100 | 100 |
| Penicillins | Amoxicillin | 100 | 100 | 100 |
| Penicillins | Ampicillin | 100 | 100 | 100 |
| Penicillins | Penicillin-tazobactam | 100 | 100 | 100 |

| Tetracyclines | Macroxycline | 7.5 | 50 | 50 |
|----------------|---------------|-----|-----|-----|
| Tetracyclines | Doxycycline | 100 | 100 | 100 |
| Tetracyclines | Minocycline | 7.5 | 75 | 75 |
| Tetracyclines | Tetracycline | 100 | 100 | 100 |

| Antivirals | Acyclovir (intravenous formulation) | 1.2 | 100 | 100 |
|----------------|------------------------------------|-----|-----|-----|
| Antivirals | Valacyclovir | 62.5 | 66.6 | 100 |
| Antivirals | Lamivudine | 100 | 100 | 100 |
| Miscellaneous antibiotics | Trithopterin-sulfate mesalamine | 75 | 25 | 50 |

| Table 3. Hospitals lacking encephalitis/meningitis coverage | Critical Drugs Missing from Formulary | Number of hospitals (N =47) |
|----------------|-------------------------------------|--------------------------|
| IV Ampicillin | 6 (12.7) |
| Alternative available (meropenem) | 1 (2.1) |
| IV Acyclovir | 7 (14.9) |
| Alternative available (valacyclovir) | 3 (6.4) |

Data are presented as percentage of hospitals with such medication on formulary.

Green = >50%, Yellow = between 30% and 50%, Red = <50%

| Conclusion.** | In critical access hospitals in the Western USA, lack of essential empirical antimicrobials may be more of a concern than inclusion of agents with unnecessarily broad spectra. |

**Disclosures.** Chloe Bryson-Cahn, MD, Alaska Airlines (Other Financial or Material Support, Co-Medical Director, position is through the University of Washington)