

DOT (RR: 0.96,  $P < 0.001$ ) and orders for UTI (RR: 0.56,  $P < 0.001$ ) occurred, when comparing phase 1 to phase 2. It also resulted in a decrease in cephalexin DOT (RR: 0.83,  $P < 0.001$ ) and orders for UTI (RR: 0.70,  $P < 0.001$ ).

**Conclusion.** A multimodal stewardship intervention using a pocket card with guidelines and urine antibiogram, and an EMR BPA successfully reduced BSA and increased NSA for treatment of uncomplicated UTIs.

Figure 1: Stewardship pocket card with urinary antibiogram (top) and narrow-spectrum antibiotic recommendations (bottom).

RGH Urinary Pathogen Antibiogram					
ROCHESTER REGIONAL HEALTH	# of URINE isolates	Nitro-furantoin <sup>a</sup>	Trim-Sulfa	Cefazolin OR Cephalexin	Amoxicillin-Clavulanate
E coli <sup>b</sup>	1081	95	80	95	79
Kleb pneumo	320	47	93	92	96
Proteus mirabilis <sup>b</sup>	144	0	86	94	98
All Enterococcal <sup>b</sup> sp.	275	82	0	0	78
Enterococcus faecalis <sup>b</sup> and spp only	216	97	0	0	98

Any empiric agent should be considered in the context of the patient's historical microbiologic data.

a = use contraindicated in those with CrCl < 30 ml/min

b = if cultures finalize with ampicillin-sensitive bacteria, amoxicillin alone (dosed 500 mg po BID) can be used

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RGH Antibiotic Stewardship Program pager 0065

Empiric antibiotics for Uncomplicated Urinary Tract Infections*	
Clinical scenario	Empiric antibiotic if felt clinically indicated <sup>^</sup>
Asymptomatic *a positive UA with no urinary symptoms does not require treatment	No antibiotics
<ul style="list-style-type: none"> <li>SIRS 0-1 with urinary symptoms</li> <li>SIRS 0-1 without a source (and urinary source is suspected)</li> </ul>	Nitrofurantoin <sup>^</sup> 100 mg po BID x 5 days Trim-Sulfa 1 DS tablet po BID x 3 days Cephalexin 250 mg po BID x 5 days Amox-Clav 500 mg po BID x 5 days  Cefazolin 1g IV q12h
<ul style="list-style-type: none"> <li>SIRS ≥2 with urinary symptoms</li> <li>Complicated UTI</li> </ul>	Ceftriaxone 1g IV once daily

\* Any empiric agent should be considered in the context of the patient's historical microbiologic data

<sup>^</sup> Doses based on normal renal function

a = use contraindicated in those with CrCl < 30 ml/min

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#### 1116. Impact of Antimicrobial Stewardship Incentive Goals for Pharmacists on Overall Antibiotic Use and Appropriate Duration of Therapy in Urinary Tract Infections

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**Session:** 136. Antibiotic Stewardship: Urine Cultures

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**Background.** Urinary tract (UTI), skin and soft tissue, and respiratory infections are among the most frequently reported indications for antibiotics, such that focusing stewardship efforts here would expectedly have dramatic effects. Antimicrobial stewardship (AMS) programs vary in structure and available resources. At the University of Colorado Hospital, a 740-bed academic medical center, dedicated resources for AMS are limited to a pharmacist, pharmacy resident, and physician; however, there is a large clinical pharmacist group. For the past 2 years, pharmacy management incorporated AMS targets as group goals tied to performance bonuses.

**Methods.** This is a descriptive report utilizing incentives to achieve AMS goals. The first goal (July 1, 2016 to June 30, 2017) set out to reduce inpatient antibiotic use by 10%. The second goal (July 1, 2018 to June 30, 2018) was a 10% reduction in median antibiotic duration for UTIs. The AMS team provided guidelines, education, and oversight throughout target periods. Antibiotic use was calculated as days of therapy (DOT) per 1000 patient-days. Data related to UTI treatment was collected retrospectively on a quarterly basis. This was compared with baseline data previously collected during a statewide hospital stewardship collaborative project.

**Results.** During the first period, overall antibiotic use declined from 497 to 403 DOT per 1000 patient-days (18.9%), and broad-spectrum antibiotic use declined 22%. During the second period, 30 patient charts were reviewed quarterly, and the median UTI duration declined from 10 to 7 days ( $P = 0.002$ ). The most common UTI diagnoses were similar between periods with complicated cystitis and pyelonephritis comprising 60–70% of cases. The 30-day readmission rate was not different between the baseline and goal period, 11% vs. 6% respectively ( $P = 0.18$ ).

**Conclusion.** The use of group pharmacist goals tied to annual performance bonuses was effective in achieving AMS goals at our institution. In larger facilities with fewer dedicated AMS personnel, clinical pharmacists covering ward and intensive care units are an essential resource to achieving AMS goals. Group performance incentives may be a feasible strategy to generate interest and motivation to achieve AMS program goals.

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

#### 1117. A Retrospective Analysis of Paediatric Prescribing in British Columbia from 2013 to 2016

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**Session:** 137. Antibiotic Stewardship (Pediatric): Ambulatory Settings

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**Background.** Antibiotic prescribing in pediatric care is highly prevalent. Often children are prescribed antibiotics for conditions that are commonly self-limiting and viral in etiology such as upper respiratory tract infections. The purpose of this study was to examine the scope of pediatric antibiotic prescribing in British Columbia from 2013 to 2016 and identify potential new provincial antimicrobial stewardship targets.

**Methods.** Antibiotic prescription data for children were extracted from a provincial prescription database, and linked to demographic files in order to obtain patient age, sex and geographic location. Prescription rates were then calculated, and trends were examined by major anatomical therapeutic chemical (ATC) classification.

**Results.** Our cohort included an average of 271,134 children per year and 1,767,652 antibiotic prescriptions. Over the 4 years, rates of antibiotic prescribing increased 4.5% (from 453 to 474 prescriptions per 1,000 population per year). The greatest increase, across all classes of antibiotics, was seen in children aged 0–2 years of age. By 2016, the greatest increase in prescribing, by class, was observed in J01X (e.g., nitrofurantoin, fosfomicin) with a 1360% increase for children aged 3–9. Across all ages, quinolones (J01M) increased 98%. Remaining classes, including β lactams (J01C), and macrolides (J01F), experienced modest reductions in the older age groups.

**Conclusion.** Past studies have illustrated decreasing or static rates of antibiotic prescribing in British Columbia. However, we have identified a paradoxical (4.5%) increase in pediatric antibiotic prescribing since 2013. Although it appears that provincial efforts have been successful in reducing the use of broad-spectrum penicillins (J01C), marked surges in the use of classes like tetracyclines (J01A), quinolones (J01M), and other antibacterials (J01X) identify a new potential target for provincial stewardship.

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#### 1118. Trends of Paediatric Prescribing for Common Infections in British Columbia

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**Session:** 137. Antibiotic Stewardship (Pediatric): Ambulatory Settings

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**Background.** Antibiotic prescribing in pediatric care is highly prevalent, and quite often children are prescribed for conditions which are commonly self-limiting and viral in etiology. The purpose of this study was to examine the scope of pediatric antibiotic prescribing by indication, from 2013 to 2016, and identify potential new targets for provincial antimicrobial stewardship efforts.

**Methods.** Antibiotic prescription data for children were extracted from a provincial prescription database, and linked to physician billing data in order to obtain diagnostic information. Prescription rates were then calculated, and trends were examined by indication. Major categories included: upper respiratory tract infection, acute otitis media, lower respiratory tract, skin and soft tissue, and urinary tract infections.

**Results.** Our database included an average of 244,763 children per year, and 5,896,173 total antibiotic prescriptions. Increased indication-specific rates of prescribing were observed in children aged 0–2 years, for every category. Children aged 3–18 years experienced decreased prescribing across all indications, with the exception of urinary tract infections for those aged between 10–18 years. Urinary tract infections increased by 134% for children aged 0–2 years, and 75% for those aged 10–18 years, from 2013 to 2016. Although antibiotic use for upper respiratory tract infections decreased by 11% for all ages, these diagnoses continue to be prescribed for at rates 2–5 times higher than other conditions.

**Conclusion.** Although this study found a decrease in prescribing over time across all indications, antibiotic use continues to be a concern for upper respiratory tract infections in pediatric care. These diagnoses generally do not require antibiotics, and inappropriate prescribing is a major factor in antimicrobial resistance. The increased prescribing rates in the youngest age group (0–2 years) offers a new target for provincial stewardship efforts.

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#### 1119. Implementation of Pediatric Antimicrobial Stewardship Rounds in a Children's Hospital

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