

# Antimicrobial Stewardship Program: Highlight Report

## FY 16/17 Quarter 2

### Executive Summary

#### **Best Practices**

There is ongoing work to develop and revise clinical tools, protocols and order sets. Items currently being developed/revised include:

- Intravenous to oral conversion for antimicrobials clinical practice standard -update (complete)
- Antimicrobial Dosing Guidelines for Adults clinical tool 2016 update (projected completion Jan 2017)
- Empiric Treatment of Common Infections in Adults clinical tool 2016 update (projected completion Jan 2017)
- Revision/regionalization of Sexual Assault Order set (projected completion Feb 2017)
- Creation/Regionalization of Chronic Obstructive Pulmonary Disorder (COPD) order sets (projected completion March 2017)
- Pharmacist Managed Pharmacokinetic Monitoring and Dosing of Vancomycin and Aminoglycosides clinical practice standard (projected completion March 2017)
- Intravenous to oral antimicrobial conversion order set (pilot project Dawson Creek)

#### **Future project developments in active initial stages include:**

- Revision of Outpatient IV Antimicrobial Therapy options; re-instatement of Cefazolin + Probenacid
- Regional Sepsis protocol revisions/updates
- Pharmacy Resident Research project - Gap analysis of outpatient IV antimicrobial therapy (OPAT) across NH
- Education Module and treatment algorithm development for Urinary Tract Infections (including catheter associated and asymptomatic bacteriuria)
- Education Module development for Community Acquired Pneumonia and Aspiration Pneumonia in Adults

#### **Antimicrobial Usage Metrics**

It has recently come to light that there are some data collection discrepancies. We are working with IT and finance to solve this issue; therefore until the data integrity has been restored the AMS program will not be reporting on antimicrobial usage or overall costs.

#### **Clinical Service/Audit & Feedback**

Variations of Prospective Audit and Feedback (A&F) of targeted antimicrobials continue to occur at UHNBC, GR Baker and Mills Memorial hospital. During quarter 2, review of patients on antimicrobials has also been started at Prince Rupert Regional Hospital, Bulkley Valley & District Hospital as well as Dawson Creek & District Hospital. Priority sites for this work are identified based on availability of on-site pharmacists. Over the quarter 874 patient cases were reviewed and 342 drug therapy problems were identified with a 40% resolution rate. The top 3 drug therapy problems encountered include, A. Unnecessary Antimicrobial Discontinued, B. Suboptimal or ineffective therapy and C. Converting IV antimicrobial to an oral agent.

Patient case reviews at St. John Hospital in Vanderhoof and Fort St. John hospital planned to commence January 30<sup>th</sup>, 2017 and March 7<sup>th</sup>, 2017, respectively.

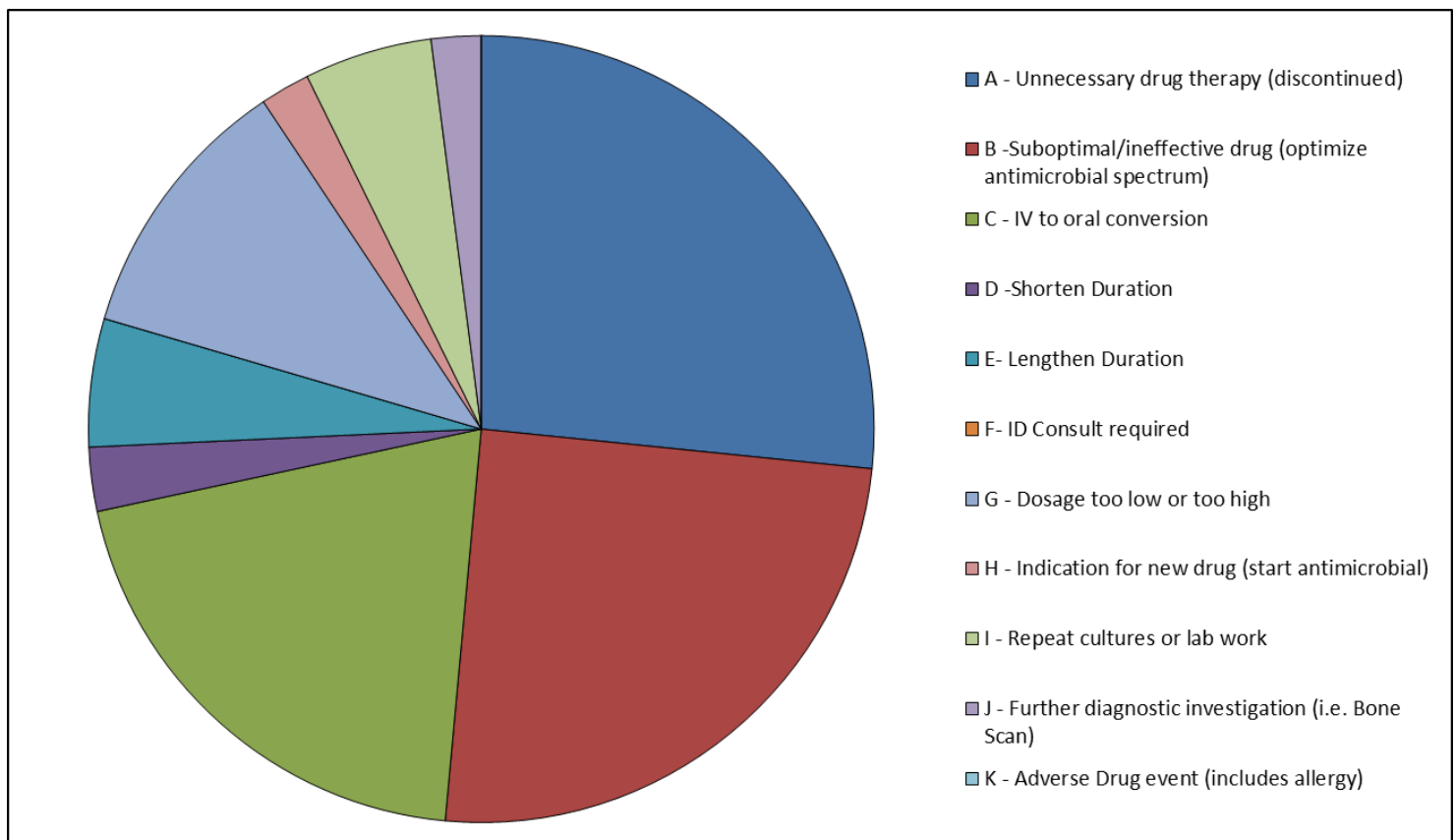
## Antimicrobial Usage Metrics

Antibiotic utilization, measured in defined daily dose (DDD) per 100 patient-days, which is the assumed average adult maintenance dose per day for a drug used for its main indication. The conversion of drug utilization amount to DDD units is performed to standardize utilization of different classes of antibiotics, allowing comparisons to be made across different facilities or patient groups (excluding pediatric populations). Please note that due to recently discovered concerns with data integrity, the AMS program is re-evaluating how data is collected and analyzed. Therefore we are unable to report on antimicrobial consumption and costs across the health authority at this time. We hope to rectify this issue in time for the 3<sup>rd</sup> quarter report.

## Audit and Feedback Service

Variations of prospective audit and feedback (A&F) of targeted antimicrobials are currently occurring at UHNBC, GR Baker, Mills Memorial, Bulkley Valley & District, Wrinch Memorial, Prince Rupert Regional and Dawson Creek & District Hospitals. This process involves assessment of patients on antimicrobial therapy evaluated against recommended therapies according to infectious disease resources and guidelines to ensure the optimal use of drug therapy. There are a variety of types of antimicrobial therapy problems identified via the A&F patient case reviews.

Figure 2 - Antimicrobial Drug Therapy Problem Types



For the full quarterly report please visit OurNH under Clinical & Patient Care on the Medications page > [Antimicrobial Stewardship](#). (In order to access OurNH, you must be connected to a Northern Health computer or have remote access. Please contact the AMS program coordinator (Alicia Ridgewell) at 250-565-5956 if you have any difficulty accessing the documents).