

Antimicrobial Stewardship Program: Highlight Report FY 16/17 Quarter 1

Executive Summary

Northern Health's Antimicrobial Stewardship (AMS) Program development began in November 2014.

The goal of the program is to improve patient care related to antimicrobial use in all NH facilities through collaboration with healthcare providers in order to:

- Successfully treat infections
- Reduce inappropriate antimicrobial use
- Minimize toxicities and adverse events
- Limit selection of antimicrobial resistant strains.

Best Practices

There is ongoing work to develop and revise clinical tools, protocols and order sets. Items completed this quarter and approved for use:

- Automatic Stop Order policy revised
- Regional Febrile Neutropenia protocol, developed in collaboration with Critical Care Program Lead

Upcoming research planned for gap analysis of outpatient IV antimicrobial therapy services and policy development with the aim of standardizing outpatient IV therapy in order to minimize unnecessary use of IV formulations.

Clinical Services

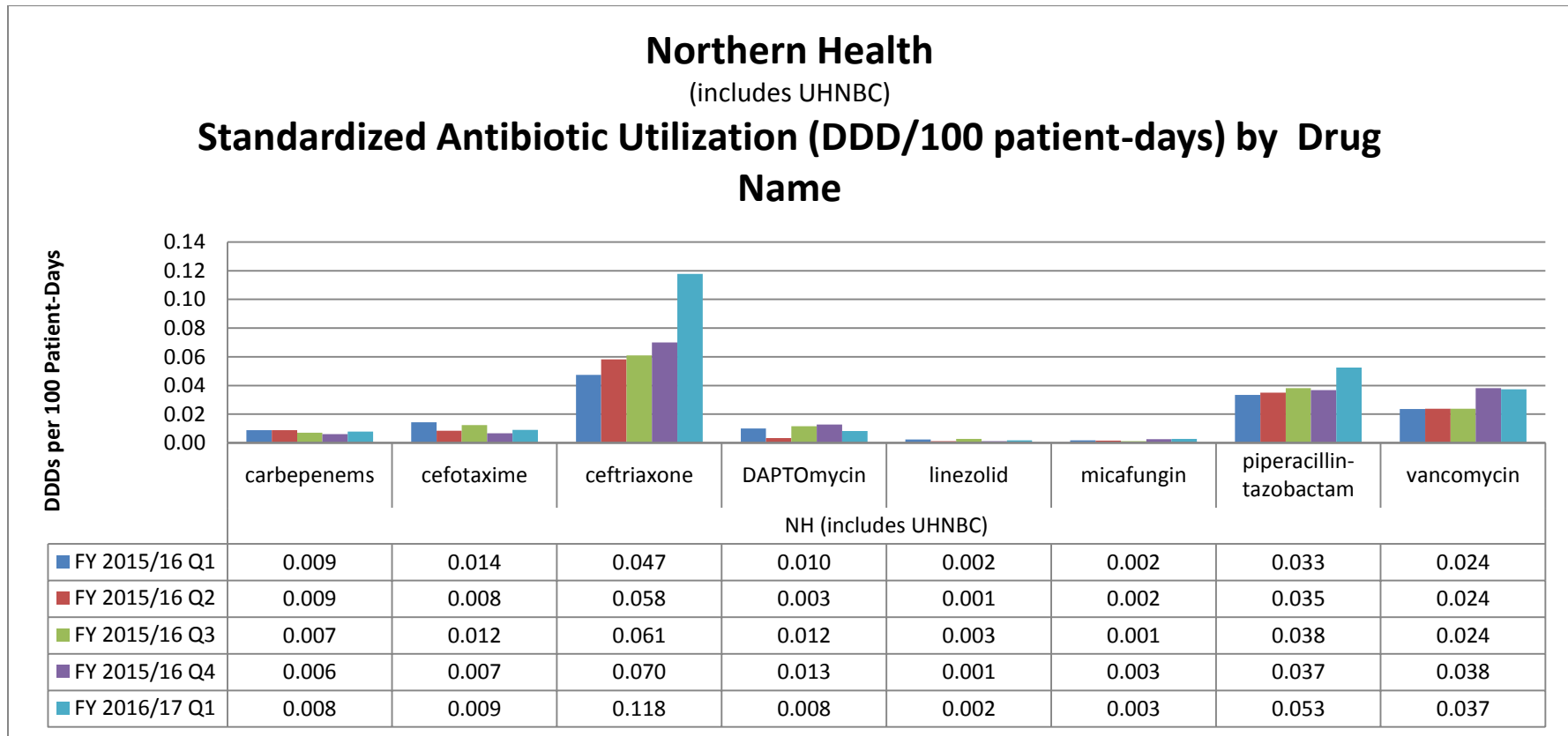
Variations of Prospective Audit and Feedback (A&F) of targeted antimicrobials are currently occurring at:

- UHNBC (initiated Feb 2016)
- GR Baker (initiated May 2016)
- Mills Memorial (initiated June 2016)
- Kitimat General Hospital (initiated June 2016)

Commencement of A&F at other sites outside UHNBC will continue to occur in a stepwise approach, adding 1 new site on a monthly basis. Priority sites are identified based on availability of on-site pharmacists.

Antimicrobial Utilization

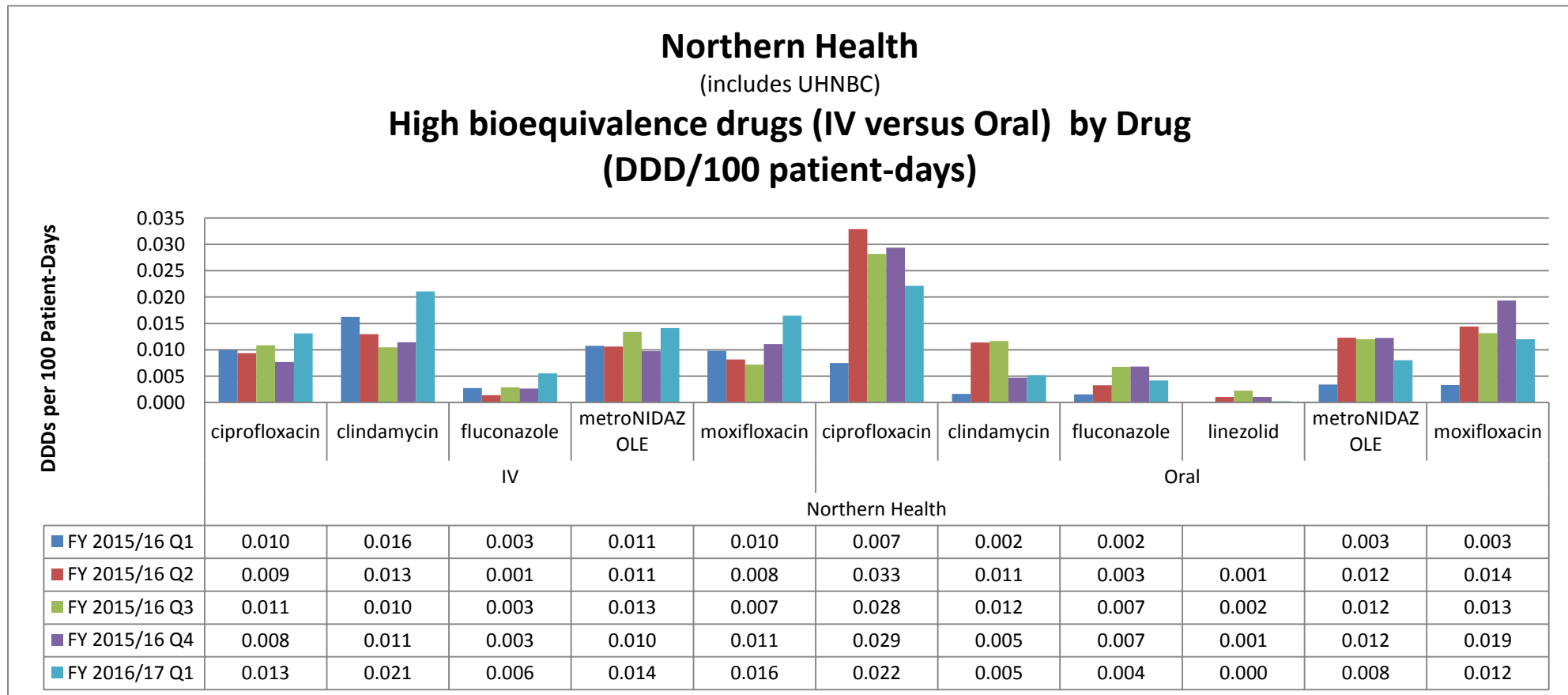
- Measured in defined daily dose (DDD) per 100 patient-days
 - Is the assumed average adult maintenance dose per day for a drug used for its main indication
 - Is calculated to track the utilization trend over time
 - Is used to standardize utilization of different classes of antibiotics, allowing comparisons to be made across different facilities or patient groups (excluding pediatric populations)



The top 3 targeted antimicrobials with highest use across Northern Health remain to be ceftriaxone, piperacillin-tazobactam and vancomycin. The above graph shows higher use of these 3 antimicrobials in quarter 1 of 2016/17 FY compared to quarter 1 of 2015/16.

IV versus Oral Antimicrobials

Conversion from IV to PO antimicrobials results in cost savings for our facilities as well as positive clinical outcomes for our patients such as shortened hospital stay, reduced risk of line-related infections and adverse events as well as no IV related mobility restrictions for patients. Certain antimicrobials are targeted due to their high oral bioequivalence (ability to achieve equivalent systemic concentrations after an oral dose compared to IV dose). When looking at numbers for quarter 1, this fiscal shows higher usage of IV (with the exception of ciprofloxacin) compared to oral, however the difference is much less than previous. These agents will continue to be promoted for initial prescribing of oral formulations where the patient’s situation allows (i.e. functioning GI tract, no contraindications to oral medications etc.).



For the full quarterly report and to see the data presented above divided by HSDA and UHNBC separately, 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).