
Collaborative Antibiotic Stewardship Program

Presented by Cari Spillman,
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Hospital

Introduction to Blue Mountain and UNHS

Critical access hospital

Large catchment area

Collaborative community health partners- history

Contract with doctors for our ER and IP and OB care

Program Overview

Program focus- Enhance appropriate antibiotic use, improve patient outcomes, combat antibiotic resistance, with a focus in 2024 of C-diff potentially coming from dental patients.

Team members involved

Dr. L. Val Jones, Medical Director UNHS

Dr. Chad Moses, Pharmacy Director UNHS

Dr. Shane Gurley, Pharmacy Director, BMH

Cari Spillman, Compliance Director, BMH

Lisa MacDonald, Dental office manager

Nick Fox, RN Clinic Director

Verlyn Hawks, UNHS IT A-Team

Randy Pemberton, UNHS IT A-Team

COVID-19 interrupted

We initiated our antibiotic stewardship program in collaboration with Utah Navajo Health System (UNHS), focusing initially on analyzing specific patient cases to identify potential areas for improvement. This targeted approach aimed to enhance the effectiveness and appropriateness of antibiotic use, thereby improving patient outcomes and combating antibiotic resistance. However, our progress was abruptly halted by the onset of the COVID-19 pandemic, which redirected our resources and attention to immediate pandemic response efforts. In 2024, we have resumed our stewardship program with renewed vigor, building on our previous insights and incorporating lessons learned during the pandemic to strengthen our commitment to optimal antibiotic use and patient safety.

Dental patients

As we restarted our antibiotic stewardship program in 2024, the dental office reached out for guidance on best prescribing practices to avoid complications such as *Clostridioides difficile* (C-diff) infections. Recognizing the critical role of appropriate antibiotic use in dental practices, and how these practices could affect our patients downstream, we started a data analytics project to determine across the two organizations which patients had received antibiotics across both organizations, and how we could tie them all together.

In our medical staff meeting, we were able to provide provided tailored recommendations and educational resources to ensure they could contribute effectively to our overarching goals. This collaboration underscored the importance of a unified approach across all healthcare sectors to minimize antibiotic resistance and enhance patient safety.

Learnings from the Data collected

1. Antibiotic Prescription Patterns
 - Variability in initial practices
 - Standard protocols reduced unnecessary prescriptions
2. Patient Outcomes
 - Improved adherence to guidelines
 - Reduced infection rates, shorter hospital stays
3. Focus on Dental Patients
 - High antibiotic use in dental care
 - Tailored interventions improving prescribing behaviors

Example of findings

Patient 1

Date of last collection: 05/2023

UNHS:

HX of Predisone, antivirals,
omeprazole

05/2022	Septra DS
08/2022	Keflex 250 mg
10/2022	Ciprofloxacin 500 mg
4/2023	Metronidazole 500 mg
12/2023	Cefadroxil 1 gm
12/2023	Keflex 500 mg
01/2024	Macrobid 100 mg

BMH:

ER visit
ER visit
ER visit discharged with Keflex 500 mg
ER visit
ER visit, discharged with Cefdinir 300 mg
ER visit, IP discharged with Levofloxacin 750 mg
ER visit
ER visit, IP
ER visit
ER visit discharged with Cefadroxil 1gm
ER visit
ER visit discharged Macrobid 100 mg
ER visit
ER visit, IP Hydronephrosis, UT disease
ER visit, Observation Admitted for nausea and C-diff
ER visit discharged with Keflex 500 mg
ER visit

Must be getting prescriptions outside of UNHS

Next Steps

1. Share Findings
 - Regular meetings, workshops, publications
2. Provider Engagement
 - Ongoing training for medical and dental providers
3. Expand Collaboration
 - Extend stewardship to other patient groups
4. Continuous Monitoring
 - Rigorous data collection and analysis

Conclusion

- Successful collaboration with UNHS
- Significant progress in responsible antibiotic use
- Commitment to ongoing education and data-driven interventions
- Ensuring better patient care and outcomes