Nevada Medicaid Antibiotic Policy
Antimicrobial Stewardship
Agenda

1. Antimicrobial Stewardship Background
2. The Opportunity
3. Nevada Medicaid Policy
4. Questions and Resources
Antimicrobial Stewardship
Background

James M. Wilson V., MD FAAP
Director, Nevada Medical Intelligence Center
Antimicrobial Resistance: Context of Concern For Nevada

• In the US, antibiotic resistant bacteria infects 2 million people, causes 23,000 deaths and costs our healthcare system $20.4 billion annually.

• Cost:
  – Direct cost to US healthcare system ~ $20.4B in 2017
  – Indirect cost US households ~ $35.7B in 2017
  – US average cost per facility of $372k
  – Increased per patient cost $10-$40k per infection

• Morbidity and mortality
  – Longer length of stay
  – 2-4x mortality (with carbapenem, MDR/XDR/PDR resistance)
Antibiotic Resistance in Nevada

Nevada is the leading state in the nation for CREs*.  

Fluoroquinolones and extended spectrum cephalosporins are associated with increased risk of carbapenem-resistant infections in the hospital setting.  
Carbapenem resistance often is associated with resistant to multiple other classes of antibiotics.
Antibiotic Resistance in Nevada

Nevada is the leading state in the nation for MDR Acinetobacter*.

* Excluding Puerto Rico.

Learn more about other healthcare-associated infections in Nevada.
Antibiotic Resistance in Nevada

Nevada is the leading state in the nation for MDR E. coli*.

* Excluding Puerto Rico.
Antibiotic Use = More Resistance

- The older you are, and the more you are exposed to antibiotics, the worse the resistance.
- Each of these boxes is an antibiotic - the yellow and red colors indicate we have lost the ability to prescribe this antibiotic.
The More Exposure to Antibiotics Over a Lifetime, the Worse the Resistance

Example: 3rd generation cephalosporins

- Nevada ranks 3rd for *E. coli* resistant to extended spectrum cephalosporins
- 1st for *Klebsiella* resistant to extended spectrum cephalosporins
The More Exposure to Antibiotics Over a Lifetime, the Worse the Resistance

Example: Fluoroquinolones

E. coli- Pediatric Inpatient

E. coli- Adult Inpatient

E. coli- Adult Long Term Acute Care

- Nevada ranks 3\textsuperscript{rd} for fluoroquinolone resistance in MRSA.
The More Exposure to Antibiotics Over a Lifetime, the Worse the Resistance

Example: Oxazolidinones

- Nevada ranks #1 and #2 for vancomycin resistant *Enterococcus faecalis* and *faecium*, respectively
- Linezolid is one of our last options for these patients
Antimicrobial Stewardship refers to coordinated interventions designed to improve and measure the appropriate use of antimicrobials by promoting the selection of the optimal antimicrobial drug regimen, dose, duration of therapy and route of administration.

**What Can We Do?**

- **Commitment**: Demonstrate dedication to and accountability for optimizing antibiotic prescribing and patient safety.
- **Action for policy and practice**: Implement at least one policy or practice to improve antibiotic prescribing, assess whether it is working, and modify as needed.
- **Tracking and reporting**: Monitor antibiotic prescribing practices and offer regular feedback to clinicians, or have clinicians assess their own antibiotic prescribing practices themselves.
- **Education and expertise**: Provide educational resources to clinicians and patients on antibiotic prescribing, and ensure access to needed expertise on optimizing antibiotic prescribing.
The Opportunity

- Currently, we are overusing antibiotics and seeing serious levels of resistance. There is concern we may lose the ability to use these antibiotics when we truly need them.
- Appropriate prescribing of antibiotics help protect their availability for use in seriously ill patients.
- Our overall goal is that together, we can preserve our ability to save lives with antibiotics and begin to turn the tide of antibiotic resistance for Medicaid recipients.
Nevada Medicaid
Antibiotic Policy

Holly M. Long
Social Services Program Specialist III

Beth Slamowitz, PharmD
Social Service Pharmacy/DME Program Chief
In 2019, Nevada Medicaid will require prior authorization for the following (outpatient antibiotic classes):

- **3rd generation cephalosporins** – cefixime, cefdinir, cefpodoxime, ceftibuten and cefditoren
- **Fluoroquinolones** – ciprofloxacin, levofloxacin, delafloxacin, moxifloxacin, and ofloxacin
- **Oxazolidinones** – tedizolid and linezolid
Exception Criteria

- If prescribed by an infectious disease specialist or by an emergency department provider
- Ceftriaxone prescribed as first line treatment for gonorrhea, pelvic inflammatory disease, epididymo-orchitis and as an alternative to benzylpenicillin to treat meningitis for those with severe penicillin allergy
- If Cefixime is prescribed for gonococcal infection where Ceftriaxone is unavailable
- If the recipient resides in acute care, long-term acute care (LTAC), or a skilled nursing facility (SNF)
Why Outpatient Settings?\textsuperscript{5}


- Estimates show 1 adverse drug event resulting in an emergency department visit occurs for every 1,000 outpatient antibiotic prescriptions.

- In 2015, 838 antibiotic prescriptions per 1,000 population were dispensed from US community pharmacies.

- CDC’s Core Elements of Outpatient Antibiotic Stewardship include
  - Commitment, Action for Policy and Practice, Tracking and Reporting and Education.
Antibiotic Prescribing in Outpatient Settings\textsuperscript{6,7}

Opportunity to Improve Antibiotic Prescribing Across Outpatient Settings

<table>
<thead>
<tr>
<th>Conditions for which antibiotics are not recommended</th>
<th>Conditions for which antibiotics are sometimes recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of visits resulting in an antibiotic prescription...</td>
<td></td>
</tr>
<tr>
<td>Office-based clinics</td>
<td>Emergency departments</td>
</tr>
<tr>
<td>for asthma/allergy, bronchitis, flu, nonsuppurative middle ear infections, viral upper respiratory infections, viral pneumonia</td>
<td>17%</td>
</tr>
<tr>
<td>for sinus infections</td>
<td>76%</td>
</tr>
<tr>
<td>for suppurative middle ear infections</td>
<td>79%</td>
</tr>
<tr>
<td>for pharyngitis</td>
<td>51%</td>
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</tbody>
</table>
Why These Antibiotic Classes\textsuperscript{5}

- Reductions in fluoroquinolones and cephalosporins, are more likely to prevent \textit{C difficile} infection.
  - A 10% decrease in outpatient prescription rates could result in a 17% decrease in \textit{C difficile} infection rates.

- Fluoroquinolones are commonly used inappropriately in outpatient settings.

- 2016, FDA revised Black Box Warnings on fluoroquinolones because they can have disabling and permanent side effects.
  - Recommended that fluoroquinolones be avoided in acute sinusitis, acute bronchitis and uncomplicated UTIs.

- Oxazolidinones - need to keep a close watch to see if there is any erosion in this class.
  - Reduce the development of drug-resistant bacteria and effectiveness of antibacterial drugs.
How This Plan Was Initiated

WHEREAS, antimicrobial resistance is an important threat against infections bacterial, fungal, and viral that can harm people of all ages and walks of life, and

WHEREAS, inappropriate use of antibiotics for viral infections and antibiotic resistance in the treatment of bacterial infections and coliform bacteria has led to an increase in antibiotic-resistant organisms; and

WHEREAS, antibiotic resistance has become a global threat to the health of all people, and information on identification and control of these organisms has been disseminated; and

WHEREAS, the U.S. Centers for Disease Control and Prevention, partnering with the European Center for Disease Prevention and Control, the Nevada Division of Public and Behavioral Health, and the Nevada Antimicrobial Stewardship Program are drawing resources to enhance public and healthcare professionals' awareness regarding the inappropriate use of antibiotics; and

WHEREAS, the Nevada Antimicrobial Stewardship Program, in partnership with physicians, organizations, community groups, health plans, state and local public health organizations and pharmaceutical companies, is educating health professionals and consumers about the appropriate use of antibiotics; and

WHEREAS, these collaborative efforts seek to increase awareness about the emergence and extent of resistance and work to prevent the increase and spread of antibiotic-resistant bacteria.

NOW, THEREFORE, I, BRIAN SANDOVAL, GOVERNOR OF THE STATE OF NEVADA, do hereby proclaim November 14-20, 2016, as SMART ABOUT ANTIBIOTICS WEEK IN NEVADA.

In Witness Whereof, I have hereunto set my hand and caused the Great Seal of the State of Nevada to be affixed at the State Capital in Carson City, this Eighth day of October, 2016.

[Signature]
Antibiotic Policy/Antimicrobial Stewardship in Other States

- Oregon
  - AWARE
- Pennsylvania
  - Antibiotic Resistance Awareness Initiative
- New York
  - NY Be Antibiotics Awareness Team
- Idaho
- Colorado
  - Get Smart Colorado: Use Antibiotics Wisely
- Massachusetts
- Hawaii
  - State of Hawaii Antimicrobial Resistance Project (SHARP)
- Vermont
  - Get Smart Vermont: Antibiotics Aren’t Always the Answer
- Georgia
  - South Dakota
  - Utah
    - Utah Alliance Working for Antibiotic Resistance Education
- Texas
- Illinois
- Maine
Policy Implementation Timeline

July 2018
DUR Board Approval & Recommendation

November 2018
Antibiotic Policy Kickoff

March 2019
Policy Implementation

September 2018
Informational Letter Sent to Providers

December 2018
Medicaid Antibiotic Policy Webinar
Nevada Antibiotic Claim Utilization
FFS and MCO, 2014-2018
Prior Authorization Approval

3rd Generation Cephalosporins and Fluoroquinolones:
Approval will be provided if: Culture and sensitivity-proven susceptibilities and resistance to other agents suggest the requested antibiotic is necessary

**Approval will be for a single course**
Antibiotic PA Form Examples

**Third Generation Cephalosporins and Fluoroquinolone Prior Authorization Request Form**

<table>
<thead>
<tr>
<th>Member Information (required)</th>
<th>Provider Information (required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member Name:</td>
<td>Provider Name:</td>
</tr>
<tr>
<td>Member ID#:</td>
<td>NPI #:</td>
</tr>
<tr>
<td>Date of Birth:</td>
<td>Specialty:</td>
</tr>
<tr>
<td>Street Address:</td>
<td>Office Phone:</td>
</tr>
<tr>
<td>City:</td>
<td>Office Fax:</td>
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<td>State:</td>
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<tr>
<td>Zip:</td>
<td>City:</td>
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<tr>
<td>Phone:</td>
<td>State:</td>
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<td></td>
<td>Zip:</td>
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</tbody>
</table>

**Medication Information (required)**

<table>
<thead>
<tr>
<th>Medication Name:</th>
<th>Strength:</th>
<th>Dosage Form:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**Exception Criteria**

- Prescribed by an infectious disease specialist or an emergency department provider.
- Ceftriaxone prescribed as first line treatment for gonorrhea, pelvic inflammatory disease, epididymo-orchitis and an alternative to benzylpenicillin to treat meningitis for those with a severe penicillin allergy.
- The recipient resides in one of the following:
  - Acute Care
  - Long-term Acute Care (LTAC)
  - Skilled Nursing Facility (SNF)

**Clinical Information (required)**

<table>
<thead>
<tr>
<th>Diagnosis:</th>
<th>ICD-10 Code:</th>
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</tbody>
</table>

**Clinical Information:**

- Does a culture and sensitivity (C&S) suggest susceptibility to the requested agent? □ Yes □ No
- If Yes to the above, list the date the C&S was performed: _______________________
- Is resistance to first-line agents shown? □ Yes □ No
- If Yes to the above, list agents: _______________________
- Was treatment started with intravenous antibiotic(s) in the hospital and the recipient requires continued outpatient therapy? □ Yes □ No
- Does the member have any contraindications to alternative antibiotics? □ No □ Yes
- Describe (eg. allergy, drug interaction): _______________________
- Are there any other comments, diagnoses, symptoms, medications tried or failed, and/or any other information the prescriber feels is important to this review? _______________________

Division of Health Care Financing and Policy
Prior Authorization Approval

Oxazolidinones:

Approval will be provided if:

- **Sivextro (tedizolid)**
  - Appropriate diagnosis (ABSSSI)
  - Infection is caused by MRSA
  - Documented trial of or has a contraindication to an alternative antibiotic that the organism is susceptible to
  - Or the individual started treatment with intravenous antibiotics in the hospital and requires continued outpatient therapy

- **Zyvox (linezolid)**
  - Appropriate diagnosis (VRE or MRSA)
  - Documented trial of or has a contraindication to an alternative antibiotic that the organism is susceptible to
  - Or the individual started treatment with intravenous antibiotics in the hospital and requires continued outpatient therapy

**Approval will be for a single course**
Antibiotic PA Form Examples

Tedizolid (Sivextro®) Prior Authorization Request Form

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<tr>
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<tr>
<td>Zip:</td>
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</tbody>
</table>

Medication Information (required)

- Medication Name:
- Strength:
- Dosage Form:
- Directions for Use:
- Check if requesting brand
- Check if request is for continuation of therapy

Exception Criteria

- Prescribed by an infectious disease specialist or an emergency department provider.
- The recipient resides in one of the following:
  - Acute Care
  - Long-term Acute Care (LTAC)
  - Skilled Nursing Facility (SNF)

Clinical Information (required)

- ICD-10 Code:
- Diagnosis:
- Clinical Information: (mark all that apply)
  - Infection is caused by methicillin-resistant Staphylococcus aureus (MRSA).
  - Recipient has had a trial of or has a contraindication to an alternative antibiotic that the organism is susceptible to (depending on manifestation, severity of infection and culture or local sensitivity patterns, examples of alternative antibiotics may include, but are not limited to: TMP/SMX, doxycycline, vancomycin, daptomycin, teicavancin, daptomycin).
  - Treatment started with intravenous antibiotic(s) in the hospital and the recipient requires continued outpatient therapy.
- Does the member have any contraindications to alternative antibiotics?
  - No
  - Yes - Describe (eg. allergy, drug interaction):
- Are there any other comments, diagnoses, symptoms, medications tried or failed, and/or any other information the prescriber feels is important to this review?

Linezolid (Zyvox®) Prior Authorization Request Form

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Medication Information (required)

- Medication Name:
- Strength:
- Dosage Form:
- Directions for Use:
- Check if requesting brand
- Check if request is for continuation of therapy

Exception Criteria

- Prescribed by an infectious disease specialist or an emergency department provider.
- The recipient resides in one of the following:
  - Acute Care
  - Long-term Acute Care (LTAC)
  - Skilled Nursing Facility (SNF)

Clinical Information (required)

- ICD-10 Code:
- Diagnosis:
- Clinical Information: (mark all that apply)
  - Infection is caused by vancomycin-resistant enterococcus (VRE) faecium.
  - Infection is caused by methicillin-resistant Staphylococcus aureus (MRSA).
  - Recipient has had a trial of or has a contraindication to an alternative antibiotic that the organism is susceptible to (depending on manifestation, severity of infection and culture or local sensitivity patterns, examples of alternative antibiotics may include, but are not limited to: TMP/SMX, doxycycline, vancomycin, daptomycin, teicavancin, daptomycin).
  - Treatment started with intravenous antibiotic(s) in the hospital and the recipient requires continued outpatient therapy.
- Does the member have any contraindications to alternative antibiotics?
  - No
  - Yes - Describe (eg. allergy, drug interaction):
- Are there any other comments, diagnoses, symptoms, medications tried or failed, and/or any other information the prescriber feels is important to this review?
Summary

• Overall, we are promoting for the advocacy and safety of Medicaid recipients
• Helping to increase awareness and understand the impact of inappropriate use and antibiotic resistance
• Optimize antibiotic prescribing to preserve antibiotics and treat infections effectively
Next Steps

• Capture baseline antibiotic utilization data
  – Continue to monitor quarterly
• Evaluate policy for needed updates
  – DUR Board
  – Appropriate Antibiotic Selected, Appropriate Dose & Duration of Treatment
• Establish antimicrobial resources and contacts
  – DPBH
• Collaboration
  – Antimicrobial Stewardships throughout Nevada
Resources

- Division of Health Care Financing & Policy, Pharmacy Services: http://dhcfp.nv.gov/Pgms/CPT/Pharmacy/
- Nevada Division of Public and Behavioral Health (DPBH) – Antibiotic/Antimicrobial Resistance: http://dpbh.nv.gov/Programs/HAI/dta/AMR/
- Nevada Antimicrobial Stewardship Program: https://www.nvasp.net/
- CDC Antibiotic/Antimicrobial Resistance: https://www.cdc.gov/drugresistance/about.html
- CDC Antibiotic Prescribing and Use in Doctor’s Offices: https://www.cdc.gov/antibiotic-use/community/for-hcp/outpatient-hcp/index.html
- CDC Improving Prescribing: https://www.cdc.gov/antibiotic-use/community/improving-prescribing/index.html
- IDSA: https://www.idsociety.org/practice-guidelines/#/score/DESC/0/+/

Division of Health Care Financing and Policy
References

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2. https://gis.cdc.gov/grasp/PSA/MapView.html
https://www.cdc.gov/antibiotic-use/community/improving-prescribing/core-elements/core-outpatient-stewardship.html


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