![MoHealthNet logo]

CONDUENT

SmartPA Criteria

Proposal

Drug/Drug Class:	Penicillin Agents PDL Edit
First Implementation Date:	October 5, 2017
Revised Date:	January 12, 2023
Prepared For:	MO HealthNet
Prepared By:	MO HealthNet/Conduent
Criteria Status:	☒ Existing Criteria ☐ Revision of Existing Criteria ☐ New Criteria

Executive Summary

Purpose: The MO HealthNet Pharmacy Program will implement a state-specific preferred drug list.

Why Issue Selected: Penicillins are β-lactam antibiotics that are bactericidal by unknown mechanisms but perhaps by activating autolytic enzymes that destroy the cell wall in some bacteria. In general, penicillins are active against gram-positive bacteria (e.g., staphylococci, streptococci) and some gram-negative cocci (e.g., meningococci). Benzathine penicillin G intramuscularly is used to treat syphilis, while amoxicillin is a good all-purpose choice for treatment of susceptible infections in both adults and children. The second generation penicillins (ampicillin and amoxicillin) are broad spectrum penicillins distinguished by their coverage against gram negative bacilli. Amoxicillin is generally preferred over ampicillin because it is better absorbed, tastes good, has fewer gastrointestinal effects, and can be given less frequently. Some bacteria produce β-lactamases, which can inactivate these antibiotics; the addition of clavulanate helps retain the effectiveness of certain penicillins. Clavulanate extends the coverage spectrum of amoxicillin, making it more effective for more serious and resistant bacterial infections such as sinusitis, otitis, and lower respiratory tract infections. Dicloxacillin is especially useful in the treatment of penicillinase-producing staphylococci, such as methicillin-susceptible staphylococcus aureus. The Infectious Disease Society of America guidelines recommend various penicillin agents for different bacterial infections based on likely pathogens for the site of infection and range of coverage and possible resistance of those pathogens.

Total program savings for the PDL classes will be regularly reviewed.

Program-Specific Information:

Preferred Agents	Non-Preferred Agents
• Amoxicillin • Amox/Clav Susp/Tabs • Ampicillin • Bicillin® C-R Inj • Dicloxacillin • Penicillin VK	• Amox/Clav Chew Tabs • Amox/Clav XR Tabs • Augmentin® Susp • Augmentin XR®

Type of Criteria:

☐ **Increased risk of ADE**   ☒ **Preferred Drug List**

☐ **Appropriate Indications**   ☐ **Clinical Edit**

Data Sources: ☐ **Only Administrative Databases**   ☒ **Databases + Prescriber-Supplied**

Setting & Population

- Drug class for review: Penicillin Agents
- Age range: All appropriate MO HealthNet participants

Approval Criteria

- Failure to achieve desired therapeutic outcomes with trial on 3 or more preferred agents
  - Documented trial period for preferred agents **OR**
  - Documented ADE/ADR to preferred agents

Denial Criteria

- Lack of adequate trial on required preferred agents
- Therapy will be denied if all approval criteria are not met

Required Documentation

| Laboratory Results: | | Progress Notes: | |
| MedWatch Form: | | Other: | |

Disposition of Edit

Denial: Exception Code "0160" (Preferred Drug List)
Rule Type: PDL

Default Approval Period

1 year

References

- Evidence-Based Medicine Analysis: "Penicillin and Related Agents", UMKC-DIC; June 2022.
- Evidence-Based Medicine and Fiscal Analysis: "Penicillins – Therapeutic Class Review"-, Conduent Business Services, L.L.C., Richmond, VA; June 2021.
- USPDI, Micromedex; 2022.
- Facts and Comparisons eAnswers (online); 2022 Clinical Drug Information, LLC.