Original Effective Date: 02/2019
Current Effective Date: 01/31/2024
Last P&T Approval/Version: 01/31/2024
Next Review Due By: 01/2025
Policy Number: C15914-A

Nuzyra (omadacycline)

PRODUCTS AFFECTED

Nuzyra (omadacycline)

COVERAGE POLICY

Coverage for services, procedures, medical devices and drugs are dependent upon benefit eligibility as outlined in the member's specific benefit plan. This Coverage Guideline must be read in its entirety to determine coverage eligibility, if any. This Coverage Guideline provides information related to coverage determinations only and does not imply that a service or treatment is clinically appropriate or inappropriate. The provider and the member are responsible for all decisions regarding the appropriateness of care. Providers should provide Molina Healthcare complete medical rationale when requesting any exceptions to these guidelines.

Documentation Requirements:
Molina Healthcare reserves the right to require that additional documentation be made available as part of its coverage determination; quality improvement; and fraud; waste and abuse prevention processes. Documentation required may include, but is not limited to, patient records, test results and credentials of the provider ordering or performing a drug or service. Molina Healthcare may deny reimbursement or take additional appropriate action if the documentation provided does not support the initial determination that the drugs or services were medically necessary, not investigational, or experimental, and otherwise within the scope of benefits afforded to the member, and/or the documentation demonstrates a pattern of billing or other practice that is inappropriate or excessive.

DIAGNOSIS:
Community-acquired bacterial pneumonia (CABP), Acute bacterial skin and skin structure infections (ABSSSI)

REQUIRED MEDICAL INFORMATION:
This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. If a drug within this policy receives an updated FDA label within the last 180 days, medical necessity for the member will be reviewed using the updated FDA label information along with state and federal requirements, benefit being administered and formulary preferencing. Coverage will be determined on a case-by case basis until the criteria can be updated through Molina Healthcare, Inc. clinical governance. Additional information may be required on a case-by-case basis to allow for adequate review. When the requested drug product for coverage is dosed by weight, body surface area or other member specific measurement, this data element is required as part of the medical necessity review. The Pharmacy and Therapeutics Committee has determined that the drug benefit shall be a mandatory generic and that generic drugs will be dispensed whenever available.

A. FOR ALL INDICATIONS:
1. Documentation member has an infection caused by or strongly suspected to be caused by a type of pathogen and site of infection within the FDA label or compendia supported.
   AND

2. (a) FOR COMMUNITY ACQUIRED PNEUMONIA (CABP): Documentation of inadequate treatment response, serious side effects, contraindication, or non-susceptibility to a first-line antibiotic treatment, such as a macrolide, fluoroquinolone, beta-lactam, or alternative tetracycline
   OR
   (b) FOR ACUTE BACTERIAL SKIN AND SKIN STRUCTURE INFECTION (ABSSSI): Documentation of inadequate treatment response, serious side effects, contraindication, or non-susceptibility to a first-line antibiotic treatment for the site of infection such as a beta-lactam, alternative tetracycline, clindamycin, trimethoprim-sulfamethoxazole, or fluoroquinolone, or vancomycin
   OR
   (c) Request is for continuation of therapy that was started at an inpatient setting (within the last 14 days) and member is at time of request transitioning to an outpatient site of care [DISCHARGE DOCUMENTATION REQUIRED WHICH INCLUDES INFECTIOUS DISEASE PRESCRIBER RECOMMENDED DURATION OF THERAPY; START AND END DATE]
   AND
3. FOR IV REQUESTS ONLY: Documentation of medically necessary use of IV Nuzyra (omadacycline) for the current active infection instead of oral Nuzyra (omadacycline)

CONTINUATION OF THERAPY:
N/A

DURATION OF APPROVAL:
Initial authorization: 14 days, Continuation of Therapy: N/A

PRESCRIBER REQUIREMENTS:
Prescribed by or in consultation with an infectious disease specialist. [If prescribed in consultation, consultation notes must be submitted with initial request]

AGE RESTRICTIONS:
18 years of age and older

QUANTITY:
CABP:
200 mg IV once or 100 mg IV twice daily as loading dose on day 1, then 100 mg IV once daily for up to 14 days OR After IV loading dose, 300 mg PO once daily for up to 14 days;
300 mg PO twice daily as loading dose on day 1, then 300 mg PO once daily for up to 14 days
ABSSSI:
200 mg IV once or 100 mg IV twice daily as loading dose on day 1, then 100 mg IV once daily for up to 14 days OR After IV loading dose, 300 mg PO once daily for up to 14 days;
450 mg PO as loading dose on days 1 and 2, then 300 mg PO once daily for up to 14 days

PLACE OF ADMINISTRATION:
The recommendation is that oral medications in this policy will be for pharmacy benefit coverage and patient self-administered.

The recommendation is that infused medications in this policy will be for pharmacy or medical benefit coverage administered in a place of service that is a non-inpatient hospital facility-based location.

DRUG INFORMATION

ROUTE OF ADMINISTRATION:
Oral, Intravenous

DRUG CLASS:
Aminomethylcyclines

FDA-APPROVED USES:
NUZYRA (omadacycline) is indicated for the treatment of adult patients with the following infections caused by susceptible microorganisms:
- Community-acquired bacterial pneumonia (CABP)
- Acute bacterial skin and skin structure infections (ABSSSI)

To reduce the development of drug-resistant bacteria and maintain the effectiveness of Nuzyra and other antibacterial drugs, Nuzyra should be used only to treat or prevent infections that are proven or strongly suspected to be caused by susceptible bacteria.

Nuzyra is indicated for the treatment of adult patients with community-acquired bacterial pneumonia (CABP) caused by the following susceptible microorganisms: Streptococcus pneumoniae, Staphylococcus aureus (methicillin-susceptible isolates), Haemophilus influenzae, Haemophilus parainfluenzae, Klebsiella pneumoniae, Legionella pneumophila, Mycoplasma pneumoniae, and Chlamydophila pneumoniae.
Nuzyra is indicated for the treatment of adult patients with acute bacterial skin and skin structure infections (ABSSSI) caused by the following susceptible microorganisms: Staphylococcus aureus (methicillin-susceptible and -resistant isolates), Staphylococcus lugdunensis, Streptococcus pyogenes, Streptococcus anginosus grp. (includes S. anginosus, S. intermedius, and S. constellatus), Enterococcus faecalis, Enterobacter cloacae, and Klebsiella pneumoniae.

COMPENDIAL APPROVED OFF-LABELED USES:
Bubonic or pharyngeal plague infection

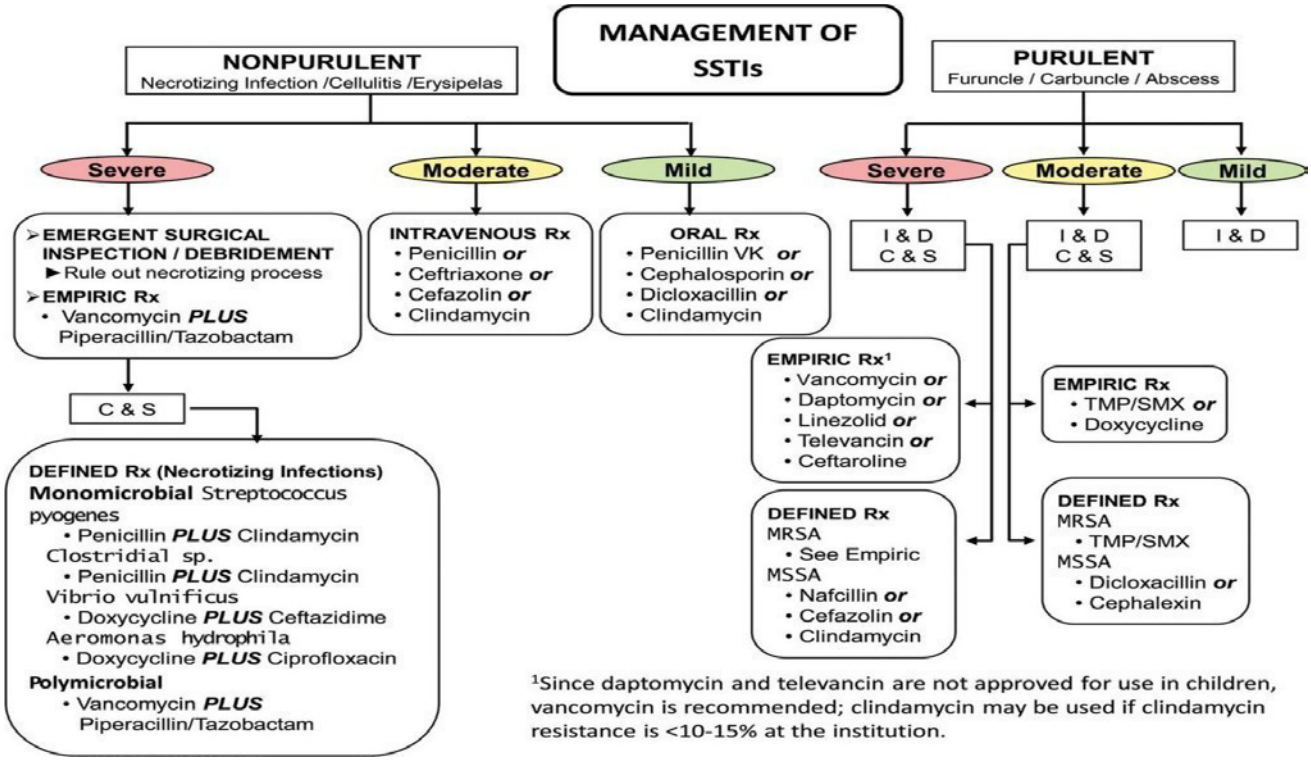
APPENDIX

APPENDIX:
None

BACKGROUND AND OTHER CONSIDERATIONS

BACKGROUND:
Nuzyra is similar to other tetracyclines (i.e., doxycycline, minocycline, tigecycline) in that it works by binding to the tetracycline binding site on the 30S subunit of the bacterial ribosome. Nuzyra is prepared by chemical modification of minocycline to overcome two common mechanisms of tetracycline resistance (tetracycline efflux mechanism and ribosome protection mechanism).
Nuzyra demonstrates antimicrobial activity in vitro against a range of Gram-positive and Gram-negative bacteria that are commonly associated with CABP and ABSSSI. Nuzyra is available in both intravenous and oral formulations (100 mg intravenous dose = 300 mg oral dose).
Treatment of ABSSSI
The majority of skin and soft tissue infections have a bacterial cause and are referred to as acute bacterial skin and skin structure infections (ABSSSI). They are classified as purulent (furuncles, carbuncles, abscesses) or non-purulent (erysipelas, cellulitis, necrotizing fasciitis), and then further classified as mild, moderate, or severe. Management of ABSSSI is based on several important diagnostic factors which determine treatment choices, including antibiotic therapy. According to the treatment algorithm included in the 2014 Infectious Diseases Society of America (IDSA) Guidelines for the Management of Skin and Soft Tissue infections, clinicians should first determine if the infection is purulent or non-purulent and whether it is mild, moderate, or severe.

IDSA Treatment Algorithm for Skin and Soft Tissue Infections



Omadacycline is the first amino methylene tetracycline - a modification of minocycline designed to overcome two common resistance mechanisms found in tetracyclines (tetracycline efflux mechanism and ribosome protection mechanism). Due to this modification, omadacycline has a broader spectrum of antimicrobial activity than other tetracyclines (i.e., minocycline, doxycycline).
Omadacycline received FDA approval for treatment of ABSSSI and CABP in October 2018. Product labeling lists the following organisms susceptible to omadacycline in ABSSSI: Staphylococcus aureus (MSSA and MRSA), Staphylococcus lugdunensis, Streptococcus pyogenes, Streptococcus anginosis grp, Enterococcus faecalis, Enterobacter cloacae, and Klebsiella pneumoniae. Efficacy of omadacycline for treatment of ABSSSI was evaluated in two phase-3, double-blind clinical trials compared to treatment with linezolid. In the first trial, patients received either omadacycline 100 mg intravenously every 12 hours for 2 doses followed by 100 mg every 24 hours with the option to switch to 300 mg orally every 24 hours or linezolid 600 mg intravenously every 12 hours with the option to switch to 600 mg orally every 12 hours. In the second trial, patients received either omadacycline 450 mg orally on Days 1 and 2, followed by 300 mg orally once daily or linezolid 600 mg orally every 12 hours. In both trials, efficacy was determined using early clinical response (ECR)at 48 to 72 hours and clinical response at the post-therapy evaluation (PTE) - 7 to 14 days after the last dose. In both trials, efficacy of omadacycline and linezolid were found to be similar. The most common adverse effects for omadacycline in the clinical trials were nausea, vomiting, infusion site reactions, increased alanine aminotransferase, increased gamma-glutamyl transferase, hypertension, headache, diarrhea, insomnia, and constipation. Omadacycline is structurally similar to other tetracyclines and may have similar tetracycline class effects including photosensitivity, pseudotumor cerebri, and anti- anabolic action which has led to increased BUN, azotemia, hyperphosphatemia, pancreatitis, and abnormal liver function tests.

CABP

Infectious Disease Society of America (IDSA)/ American Thoracic Society (ATS) guidelines recommend doxycycline as a possible therapeutic option (alternative to a macrolide) for previously healthy patients with no use of antimicrobials in the previous 3 months (macrolide or doxycycline). In other clinical scenarios, doxycycline also could be used as an alternative for patients where a macrolide is preferred but contraindicated for the patient.

CONTRAINDICATIONS/EXCLUSIONS/DISCONTINUATION:

All other uses of Nuzyra (omadacycline) are considered experimental/investigational and therefore, will follow Molina's Off- Label policy. Contraindications to Nuzyra (omadacycline) include known hypersensitivity to omadacycline, tetracycline-class antibacterial drugs or any of the excipients in Nuzyra.

OTHER SPECIAL CONSIDERATIONS:

Clostridioides difficile-associated diarrhea (CDAD) has been reported with use of nearly all antibacterial agents and may range in severity from mild diarrhea to fatal colitis. Treatment with antibacterial agents alters the normal flora of the colon leading to overgrowth of C. difficile. C. difficile produces toxins A and B which contribute to the development of CDAD. Hypertoxin producing strains of C. difficile cause increased morbidity and mortality, as these infections can be refractory to antimicrobial therapy and may require colectomy. CDAD must be considered in all patients who present with diarrhea following antibacterial drug use. Careful medical history is necessary since CDAD has been reported to occur over two months after the administration of antibacterial agents. If CDAD is suspected or confirmed, ongoing antibacterial drug use not directed against C. difficile may need to be discontinued. Appropriate fluid and electrolyte management, protein supplementation, antibacterial drug treatment of C. difficile, and surgical evaluation should be instituted as clinically indicated.

CODING/BILLING INFORMATION

Note: 1) This list of codes may not be all-inclusive. 2) Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement

HCPCS CODE	DESCRIPTION
J0121	Injection, omadacycline, 1mg

AVAILABLE DOSAGE FORMS:

Nuzyra TABS 150MG
Nuzyra SOLR 100MG single dose vial

REFERENCES

1. Nuzyra (omadacycline) injection and tablets [prescribing information]. Boston, MA: Paratek Pharmaceuticals Inc; May 2021.
2. Villano S, et al. Omadacycline; development of a novel aminomethylcycline antibiotic for treating drug-resistant bacterial infections. Future Microbiol. 2016. 11(11); 1421- 1434. http://doi.org/10.2217/fmb-2016-0100
3. Metlay JP, Waterer GW, Long AC, et al. Diagnosis and treatment of adults with community- acquired pneumonia. An official clinical practice guideline of the American Thoracic Society and Infectious Diseases Society of America. Am J Respir Crit Care Med. 2019;200(7):e45-e67. doi:10.1164/rccm.201908-1581ST
4. Stevens DL, Bisno AL, Chambers HF, et al.; Infectious Diseases Society of America Practice guidelines for the diagnosis and management of skin and soft tissue infections: 2014 update by the Infectious Diseases Society of America. Clin Infect Dis 2014; 59:e10–52

SUMMARY OF REVIEW/REVISIONS	DATE
REVISION- Notable revisions: Required Medical Information Drug Class Other Special Considerations	Q1 2024
REVISION- Notable revisions: Required Medical Information Quantity FDA-Approved Uses Compendial Approved Off-Labeled Uses Appendix Coding/Billing Information	Q1 2023
Q2 2022 Established tracking in new format	Historical changes on file