Clinical Policy: Methoxsalen (Uvadex)
Reference Number: HIM.PA.17
Effective Date: 12.01.18
Last Review Date: 11.20
Line of Business: HIM

See Important Reminder at the end of this policy for important regulatory and legal information.

Description
Methoxsalen (Uvadex®) is a naturally occurring photoactive substance that belongs to a group of compounds known as psoralens or furocoumarins.

FDA Approved Indication(s)
Uvadex is indicated for extracorporeal administration with the THERAKOS® UVAR XTS® or THERAKOS® CELLEX® Photopheresis System in the palliative treatment of the skin manifestations of cutaneous T-cell lymphoma (CTCL) that is unresponsive to other forms of treatment.

Policy/Criteria
Provider must submit documentation (such as office chart notes, lab results or other clinical information) supporting that member has met all approval criteria.

It is the policy of health plans affiliated with Centene Corporation® that Uvadex is medically necessary when the following criteria are met:

I. Initial Approval Criteria
   A. Cutaneous T-Cell Lymphoma (must meet all):
      1. Diagnosis of CTCL;
      2. Prescribed by or in consultation with an oncologist;
      3. Age ≥ 18 years;
      4. Failure of at least 2 of the following therapies (see Appendix B), unless clinically significant adverse effects are experienced or all are contraindicated:
         a. External beam radiation therapy;
         b. PUVA/UVB phototherapy;
         c. Systemic retinoid;
         d. Interferon-alpha or interferon-gamma;
         e. Methotrexate;
         f. Mechlorethamine;
         g. Istodax® or Zolinza®;
         h. Adcetris®;
         i. Potelige®;
      *Prior authorization may be required for Istodax, Zolinza, Adcetris, and Potelige.
      5. Request meets one of the following (a or b):*
         a. Dose does not exceed treatment volume (mL) x 0.017 per treatment;
b. Dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (*prescriber must submit supporting evidence*).

*Prescribed regimen must be FDA-approved or recommended by NCCN*

Approval duration: 6 months (7 treatment cycles)

B. Other diagnoses/indications
1. Refer to the off-label use policy for the relevant line of business if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): HIM.PHAR.21 for health insurance marketplace.

II. Continued Therapy
A. Cutaneous T-Cell Lymphoma (must meet all):
   1. Currently receiving medication via Centene benefit, or documentation supports that member is currently receiving Uvadex for a covered indication and has received this medication for at least 30 days;
   2. Member is responding positively to therapy;
   3. Member has not yet received a total of 7 treatment cycles;
   4. If request is for a dose increase, request meets one of the following (a or b):*
      a. New dose does not exceed treatment volume (mL) x 0.017 per treatment;
      b. New dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (*prescriber must submit supporting evidence*).

*Prescribed regimen must be FDA-approved or recommended by NCCN*

Approval duration: up to a total of 6 months (up to a total of 20 treatment cycles)

B. Other diagnoses/indications (must meet 1 or 2):
   1. Currently receiving medication via Centene benefit and documentation supports positive response to therapy.
   Approval duration: Duration of request or 6 months (whichever is less); or
   2. Refer to the off-label use policy for the relevant line of business if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): HIM.PHAR.21 for health insurance marketplace.

III. Diagnoses/Indications for which coverage is NOT authorized:
A. Non-FDA approved indications, which are not addressed in this policy, unless there is sufficient documentation of efficacy and safety according to the off label use policies – HIM.PHAR.21 for health insurance marketplace.

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key
CTCL: cutaneous T-cell lymphoma
FDA: Food and Drug Administration

Appendix B: Therapeutic Alternatives
This table provides a listing of preferred alternative therapy recommended in the approval criteria. The drugs listed here may not be a formulary agent for all relevant lines of business and may require prior authorization.
### CLINICAL POLICY

**Methoxsalen**

<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Dosing Regimen</th>
<th>Dose Limit/Maximum Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>mechlorethamine, nitrogen mustard</td>
<td>0.2 mg/kg or 6 mg/m² given as a single IV dose on day 1, or on days 1 and 8 of a regimen. Alternatively, it may be given as 0.1 mg/kg IV once daily for 4 successive days every 3—6 weeks</td>
<td>0.4 mg/kg/dose or 6 mg/m²/dose</td>
</tr>
<tr>
<td>interferons (interferon-alpha-2b, interferon-gamma-1b)</td>
<td>Varies</td>
<td>Varies</td>
</tr>
<tr>
<td>methotrexate</td>
<td>25 to 50 mg PO every week</td>
<td>50 mg/week</td>
</tr>
<tr>
<td>retinoids (e.g., Targretin® [bexarotene], all-trans retinoid acid, isotretinoin, [13-cis-retinoic acid, acitretin])</td>
<td>Varies</td>
<td>Varies</td>
</tr>
<tr>
<td>Adcetris® (brentuximab vedotin)</td>
<td>1.8 mg/kg IV every 3 weeks until disease progression or a maximum of 16 cycles</td>
<td>180 mg/dose</td>
</tr>
<tr>
<td>Poteligeo® (mogamulizumab)</td>
<td>1 mg/kg IV on days 1, 8, 5, and 22 in cycle 1, then 1 mg/kg/IV on days 1 and 15 in subsequent cycles until disease progression.</td>
<td>1 mg/kg/dose</td>
</tr>
<tr>
<td>HDAC-inhibitors (e.g., Istodax® [romidepsin], Zolinza® [vorinostat])</td>
<td>Varies</td>
<td>Varies</td>
</tr>
<tr>
<td>PUVA/UVB</td>
<td>Varies *There are no disease-specific guidelines for phototherapy used to treat mycosis fungoides and Sezary syndrome (MF/SS) despite the fact that efficacy in many cases equals or surpasses that of systemic medications</td>
<td>Varies</td>
</tr>
<tr>
<td>Electron beam radiation therapy</td>
<td>8 to 12 Gy for individual plaque and tumor lesions; 24 to 30 Gy for unilesional presentation; or 12 to 36 Gy (4 to 6 Gy per week) of total skin electron beam therapy to cover the entire cutaneous surface</td>
<td>Undetermined</td>
</tr>
</tbody>
</table>

*Therapeutic alternatives are listed as Brand name® (generic) when the drug is available by brand name only and generic (Brand name®) when the drug is available by both brand and generic.*

**Appendix C: Contraindications/Boxed Warnings**

- **Contraindication(s):** idiosyncratic or hypersensitivity reactions to methoxsalen, other psoralen compounds or any of the excipients; photosensitivity; aphakia; contraindicated to photopheresis procedure
- **Boxed warning(s):** none reported
Appendix D: General Information

- CTCLs are a group of non-Hodgkin’s lymphoma of mature T-cells that primarily present in the skin, and at times progress to involve lymph nodes, blood, and visceral organs. Mycosis fungoides is the most common subtype with primary cutaneous involvement and Sézary syndrome is an erythrodermic, leukemic variant of CTCL that is characterized by significant blood involvement and lymphadenopathy.

- There is no clinical evidence to show that treatment with Uvadex beyond 6 months or using a different schedule provides additional benefit.

V. Dosage and Administration

<table>
<thead>
<tr>
<th>Indication</th>
<th>Dosing Regimen</th>
<th>Maximum Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palliative treatment of CTCL</td>
<td>Calculate the dosage according to treatment volume as follows:</td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td>- Treatment volume x 0.017 = mL of methoxsalen per treatment.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Refer to the THERAKOS UVAR XTS or THERAKOS CELLEX Photopheresis System</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Each treatment involves collection of leukocytes, photoactivation, and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>reinfusion of photoactivated cells; methoxsalen is injected into the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>recirculation bag prior to the photoactivation phase.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatment is given on 2 consecutive days every 4 weeks for at least 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>treatment cycles (approximately 6 months).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In patients who have an increased skin score (from baseline) at the fourth</td>
<td></td>
</tr>
<tr>
<td></td>
<td>treatment assessment (at approximately 3 months), an accelerated treatment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>schedule may be administered consisting of 2 consecutive treatments every 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>weeks for a maximum of 20 cycles.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resume the regular treatment schedule if there is a 25% improvement in the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>skin score after 4 consecutive weeks on the accelerated treatment schedule.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>There is no clinical evidence of additional treatment benefit beyond 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>months or with a different schedule.</td>
<td></td>
</tr>
</tbody>
</table>

VI. Product Availability

Single-use vial: 20 mcg/mL in 10mL
VII. References

<table>
<thead>
<tr>
<th>Reviews, Revisions, and Approvals</th>
<th>Date</th>
<th>P&amp;T Approval Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy created</td>
<td>09.04.18</td>
<td>11.18</td>
</tr>
<tr>
<td>4Q 2019 annual review: no significant changes; updated NCCN dosing per new template; references reviewed and updated.</td>
<td>08.28.19</td>
<td>11.19</td>
</tr>
<tr>
<td>4Q 2020 annual review: no significant changes; updated maximum methotrexate dose in Appendix B Therapeutic Alternatives per updated NCCN guideline recommendations; references reviewed and updated.</td>
<td>07.13.20</td>
<td>11.20</td>
</tr>
</tbody>
</table>

Important Reminder
This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage
decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.

This clinical policy is the property of the Health Plan. Unauthorized copying, use, and distribution of this clinical policy or any information contained herein are strictly prohibited. Providers, members and their representatives are bound to the terms and conditions expressed herein through the terms of their contracts. Where no such contract exists, providers, members and their representatives agree to be bound by such terms and conditions by providing services to members and/or submitting claims for payment for such services.

©2018 Centene Corporation. All rights reserved. All materials are exclusively owned by Centene Corporation and are protected by United States copyright law and international copyright law. No part of this publication may be reproduced, copied, modified, distributed, displayed, stored in a retrieval system, transmitted in any form or by any means, or otherwise published without the prior written permission of Centene Corporation. You may not alter or remove any trademark, copyright or other notice contained herein. Centene® and Centene Corporation® are registered trademarks exclusively owned by Centene Corporation.