Introduction

Corticotropin is a hormone made in certain cells in the pituitary gland. (Corticotropin may also be known as ACTH or adrenocorticotropic hormone.) When corticotropin is produced in a lab and used as a treatment, it’s believed that it helps the body create its own natural steroid hormones. Corticotropin injections may be approved to treat a rare seizure disorder that affects infants, known as West syndrome. Corticotropin injections have also been tried for several other conditions known to respond to steroid treatments. When medical studies compared corticotropin treatment with intravenous steroids, the studies did not show that the corticotropin treatments worked better. For this reason, corticotropin treatment is considered not medically necessary for conditions where steroids are a proven treatment. Corticotropin has also been tried for many other conditions including gout and childhood epilepsy. There isn’t enough high quality medical evidence to show whether it works. For this reason, corticotropin treatment is considered investigational (unproven) for many conditions.

Note: The Introduction section is for your general knowledge and is not to be taken as policy coverage criteria. The rest of the policy uses specific words and concepts familiar to medical professionals. It is intended for providers. A provider can be a person, such as a doctor, nurse, psychologist, or dentist. A provider also can be a place where medical care is given, like a hospital, clinic, or lab. This policy informs them about when a service may be covered.
### Policy Coverage Criteria

<table>
<thead>
<tr>
<th>Drug</th>
<th>Medical Necessity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repository corticotropin injection*</td>
<td>Repository corticotropin* injection may be considered medically necessary for treatment of infantile spasms (West syndrome).</td>
</tr>
<tr>
<td></td>
<td>Repository corticotropin injection may be considered not medically necessary in the following corticosteroid-responsive conditions, including, but not limited to:</td>
</tr>
<tr>
<td></td>
<td>• Multiple sclerosis, acute exacerbation in adults</td>
</tr>
<tr>
<td></td>
<td>• Rheumatic disorders such as: psoriatic arthritis, rheumatoid arthritis, juvenile rheumatoid arthritis, ankylosing spondylitis</td>
</tr>
<tr>
<td></td>
<td>• Dermatologic diseases such as erythema multiforme, Stevens-Johnson syndrome</td>
</tr>
<tr>
<td></td>
<td>• Nephrotic syndrome – idiopathic or due to systemic lupus erythematosus (SLE)</td>
</tr>
<tr>
<td></td>
<td>• Ophthalmic diseases such as allergic and inflammatory processes of the eye: optic neuritis, keratitis, iritis, uveitis, choroiditis, chorioretinitis, anterior segment inflammation</td>
</tr>
<tr>
<td></td>
<td>• Respiratory diseases such as symptomatic sarcoidosis</td>
</tr>
<tr>
<td></td>
<td>• Allergic states such as serum sickness</td>
</tr>
<tr>
<td></td>
<td>• Collagen diseases such as systemic lupus erythematosus (SLE), systemic dermatomyositis (polymyositis)</td>
</tr>
<tr>
<td></td>
<td><strong>Repository corticotropin injection is considered not medically necessary for use in diagnostic testing of adrenocortical function.</strong></td>
</tr>
</tbody>
</table>

*Note: The brand name for repository corticotropin is H.P. Acthar Gel®

<table>
<thead>
<tr>
<th>Drug</th>
<th>Investigational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repository corticotropin injection</td>
<td>Repository corticotropin injection is considered investigational for conditions that are not responsive to corticosteroid therapy including, but not limited to:</td>
</tr>
</tbody>
</table>

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Repository corticotropin injection is considered investigational for all other indications.

### Coding

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT</td>
<td>Therapeutic, prophylactic or diagnostic injection (specify substance or drug); subcutaneous or intramuscular</td>
</tr>
<tr>
<td>HCPCS</td>
<td>Injection, corticotropin, up to 40 units</td>
</tr>
</tbody>
</table>

**Note:** CPT codes, descriptions and materials are copyrighted by the American Medical Association (AMA). HCPCS codes, descriptions and materials are copyrighted by Centers for Medicare Services (CMS).

### Related Information

H.P. Acthar® gel is used for intramuscular or subcutaneous injection and should never be used intravenously.

Diagnostic testing of adrenocortical function, known as the ACTH test, is typically done with synthetic ACTH. Synthetic ACTH products have been approved by the Food and Drug Administration for this purpose.

Contraindications for the use of this agent include scleroderma, osteoporosis, systemic fungal infections, ocular herpes simplex, recent surgery, history of or the presence of a peptic ulcer, congestive heart failure, uncontrolled hypertension, or sensitivity to proteins of porcine origin.

Repository corticotropin injection has potential adverse events similar to those that occur with other steroid medications such as an elevated blood pressure, a decrease in bone density, new
infections (or activation of a previous infection), and overproduction of cortisol, which can cause symptoms of Cushing syndrome.

Consideration of Age

Any ages listed in the policy statements are based on FDA labeling.

Evidence Review

Description

Repository corticotropin injection is a preparation of the natural form of adrenocorticotropic hormone (ACTH). The injection is used to treat corticosteroid-responsive conditions and as a diagnostic tool to test adrenal function.

Background

Repository corticotropin injection (H.P. Acthar Gel) is a purified, sterile preparation of the natural form of adrenocorticotropic hormone (ACTH) in gelatin to provide a prolonged release after intramuscular or subcutaneous injection. ACTH is produced and secreted by the pituitary gland; H.P. Acthar Gel uses ACTH obtained from porcine pituitaries. ACTH works by stimulating the adrenal cortex to produce cortisol, corticosterone, and a number of other hormones.

There is insufficient evidence that ACTH gel is at least as effective as IV corticosteroids for the treatment of multiple sclerosis. One RCT found that corticosteroids were more effective and another found no significant difference in efficacy.

Summary of Evidence

For individuals who have infantile spasms who receive repository corticotropin injection, the evidence includes randomized controlled trials, a systematic review, and a prospective cohort study. Relevant outcomes are symptoms and change in disease status. The systematic review judged the overall quality of the studies to be poor, with fewer than half reporting method of
randomization and most assessing relatively few patients. There was heterogeneity across studies and either vigabatrin or prednisolone was used as comparators. Multivariate analysis of a prospective cohort study found that children with infantile spasms who were treated with ACTH were more likely to respond than other children. However, the analysis might have been subject to residual confounding on unmeasured characteristics; further, the study did not differentiate between synthetic and natural ACTH. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have corticosteroid-responsive conditions (eg, rheumatoid arthritis, dermatomyositis, sarcoidosis, nephrotic syndrome, multiple sclerosis, serum sickness) who receive repository corticotropin injection, the evidence includes randomized controlled trials and small case series. Relevant outcomes are symptoms and change in disease status. Overall, more recent studies evaluating multiple sclerosis have demonstrated that intravenous corticosteroids are at least as effective, or more effective, than repository corticotropin. Most studies assessing nephrotic syndrome have been small retrospective case studies. Ongoing studies are being conducted. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have conditions not generally known to be responsive to corticosteroids (non-corticosteroid-responsive) such as tobacco cessation, childhood epilepsy, and acute gout who receive repository corticotropin injection, the evidence includes 3 head-to-head trials identified for use in gout. Relevant outcomes are symptoms and change in disease status. The quality of these studies was deemed very low to moderate because there were no direct placebo-controlled trials and no clinically relevant differences were detected between drugs studied. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who need diagnostic testing of adrenal function who receive repository corticotropin injection, the evidence does not include studies that compare the diagnostic accuracy of repository corticotropin injection with ACTH. Relevant outcomes are test validity and other test performance measures. The lack of published evidence precludes conclusions on the validity of using repository corticotropin as a diagnostic test for adrenal function. The evidence is insufficient to determine the effects of the technology on health outcomes.

**Ongoing and Unpublished Clinical Trials**

Some currently unpublished trials that might influence this policy are listed in Table 1.
Table 1. Summary of Key Trials

<table>
<thead>
<tr>
<th>NCT No.</th>
<th>Trial Name</th>
<th>Planned Enrollment</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ongoing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCT02290444</td>
<td>Effects of Adrenocorticotropic Hormone (ACTHAR Gel) on Recovery From Cognitive Relapses in Multiple Sclerosis</td>
<td>60</td>
<td>Dec 2017 (ongoing)</td>
</tr>
<tr>
<td>NCT02132195*</td>
<td>Adrenocorticotropic Hormone (ACTH) for Frequently Relapsing and Steroid Dependent Nephrotic Syndrome</td>
<td>60</td>
<td>Oct 2018</td>
</tr>
<tr>
<td>NCT02315872*</td>
<td>The Effect of ACTH (Acthar) on Measures of Chronic Fatigue in Patients With Relapsing Multiple Sclerosis</td>
<td>8</td>
<td>Dec 2019</td>
</tr>
<tr>
<td>NCT01950234*</td>
<td>Treatment of Progressive Forms of Multiple Sclerosis With Pulsed ACTH (Acthar Gel)</td>
<td>100</td>
<td>Mar 2022</td>
</tr>
<tr>
<td><strong>Unpublished</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCT01386554*</td>
<td>Acthar for Treatment of Proteinuria in Membranous Nephropathy Patients (CHART)</td>
<td>60</td>
<td>May 2017 (completed)</td>
</tr>
<tr>
<td>NCT01601236*</td>
<td>A Randomized, Double-Blind, Placebo-Controlled, Parallel-Group, Adaptive Design Pilot Safety and Efficacy Study of H.P. Acthar Gel (Acthar) in Patients With Diabetic Nephropathy and Proteinuria</td>
<td>40</td>
<td>Mar 2016 (completed)</td>
</tr>
</tbody>
</table>

NCT: national clinical trial
* Denotes industry-sponsored or cosponsored trial

Clinical Input from Physician Specialty Societies and Academic Medical Centers

While the various physician specialty societies and academic medical centers may collaborate with and make recommendations during this process, through the provision of appropriate reviewers, input received does not represent an endorsement or position statement by the physician specialty societies or academic medical centers, unless otherwise noted.

In response to requests, input was received from 3 physician specialty societies and 1 academic medical center while this policy was under review in 2010. In addition, unsolicited input was received from 1 foundation and 3 physicians. There was strong support for use of repository corticotropin injection in the treatment of infantile spasms (West syndrome).
Practice Guidelines and Position Statements

**American Academy of Neurology and Child Neurology Society**

The American Academy of Neurology and the Child Neurology Society (2012) updated their evidence-based guidelines on the treatment of infantile spasms.\(^\text{13}\) The guidelines included the following recommendations regarding use of adrenocorticotropic hormone (ACTH):

- “ACTH (Level B) or VGB [vigabatrin] (Level C) may be offered for short-term treatment of infantile spasms.”

- “Hormonal therapy (ACTH or prednisolone) may be considered for use in preference to VGB in infants with cryptogenic infantile spasms...”

**Infantile Spasms Working Group**

An industry-sponsored Infantile Spasms Working Group (2010) published a consensus report on the diagnosis and treatment of infantile spasms.\(^\text{14}\) Regarding treatment, the report concluded: “At this time, ACTH and VGB (vigabatrin) are the only drugs with proven efficacy to suppress clinical spasms and abolish the hypsarrhythmic EEG [electroencephalogram] in a randomized clinical trial setting (Mackay et al., 2004) and thus remain first-line treatment.”

**American College of Rheumatology**

The American College of Rheumatology (2012) published guidelines on therapy and anti-inflammatory prophylaxis of acute gouty arthritis.\(^\text{15}\) The guidelines committee did not reach a consensus on the use of ACTH for patients with acute gout who are able to take medications orally. For patients unable to take oral medications, the committee agreed that subcutaneous synthetic ACTH was a reasonable alternative to oral prednisone or prednisolone therapy.

**Medicare National Coverage**

There is no national coverage determination.
Regulatory Status

In 1952, H.P. Acthar® Gel (Questcor Pharmaceuticals/Mallinckrodt Pharmaceuticals) was approved by the U.S. Food and Drug Administration. The original product label included at least 19 separate conditions, including infantile spasms. At one time, this product was indicated as an injection for diagnostic testing of adrenocortical function. In 2010, this indication was removed with an update to the product label.

References


**History**

<table>
<thead>
<tr>
<th>Date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>02/09/16</td>
<td>New policy. Policy created to include plan specific medically necessary indications; replaces policy 5.01.17. Repository corticotropin injection may be considered medically necessary when criteria are met.</td>
</tr>
<tr>
<td>06/01/16</td>
<td>Interim Update, approved May 10, 2016. Language clarified regarding use the drug for steroid responsive conditions. FDA labeled conditions approved in 1952 were prior to the commercial availability of corticosteroid agents and not based on studies showing efficacy. Corticosteroid agents are available at lower cost and have stronger scientific evidence regarding their efficacy for most conditions, thus making this product not medically necessary based on contract language.</td>
</tr>
<tr>
<td>12/01/17</td>
<td>Annual Review, approved November 9, 2017. Policy updated with literature review through August 2017; no references added. Policy statements for corticosteroid-responsive conditions reorganized for clarity, including adding ophthalmic diseases.</td>
</tr>
<tr>
<td>09/21/18</td>
<td>Minor update. Added Consideration of Age statement.</td>
</tr>
</tbody>
</table>

**Disclaimer.** This medical policy is a guide in evaluating the medical necessity of a particular service or treatment. The Company adopts policies after careful review of published peer-reviewed scientific literature, national guidelines and local standards of practice. Since medical technology is constantly changing, the Company reserves the right to review and update policies as appropriate. Member contracts differ in their benefits. Always consult the member benefit booklet or contact a member service representative to determine coverage for a specific medical service or supply. CPT codes, descriptions and materials are copyrighted by the American Medical Association (AMA). ©2018 Premera All Rights Reserved.

**Scope:** Medical policies are systematically developed guidelines that serve as a resource for Company staff when determining coverage for specific medical procedures, drugs or devices. Coverage for medical services is subject to the limits and conditions of the member benefit plan. Members and their providers should consult the member benefit booklet or contact a customer service representative to determine whether there are any benefit limitations applicable to this service or supply. This medical policy does not apply to Medicare Advantage.
Discrimination is Against the Law

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Premera:

- Provides free aids and services to people with disabilities to communicate effectively with us, such as:
  - Qualified sign language interpreters
  - Written information in other formats (large print, audio, accessible electronic formats, other formats)
- Provides free language services to people whose primary language is not English, such as:
  - Qualified interpreters
  - Information written in other languages

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PO Box 91102, Seattle, WA 98111
Toll free 855-332-4535, Fax 425-918-5592, TTY 800-842-5357
Email AppealsDepartmentInquiries@Premera.com

You can file a grievance in person or by mail, fax, or email. If you need help filing a grievance, the Civil Rights Coordinator is available to help you.

You can also file a civil rights complaint with the U.S. Department of Health and Human Services, Office for Civil Rights, electronically through the Office for Civil Rights Complaint Portal, available at https://ocrportal.hhs.gov/ocr/portal/lobby.jsf, or by mail or phone at:
- U.S. Department of Health and Human Services
200 Independence Avenue SW, Room S09F, HHH Building
Washington, D.C. 20201, 1-800-368-1019, 800-537-7697 (TDD)
Complaint forms are available at

Getting Help in Other Languages

This Notice has Important Information. This notice may have important information about your application or coverage through Premera Blue Cross. There may be key dates in this notice. You may need to take action by certain deadlines to keep your health coverage or help with costs. You have the right to get this information and help in your language at no cost. Call 800-722-1471 (TTY: 800-842-5357).

Arabic (Amharic):
لا يتم إعطاء معلومات حيوية هذه الإذاعة في حالات معينة تتعلق بعلومات توصيفية فقط أو
المتعلقة التي تبدو المحتوا على درجات مختلفة من الألفاظ العربية. قد يكون هناك تأثير مهمة Premera Blue Cross.

عربي (Arabic):
يجب أن تتضمن هذه الإذاعة معلومات هامة. قد يجري هذا الإذاعة معلومات هامة بخصوص طالب أو
المتعلقة التي تبدو المحتوا على درجات مختلفة من الألفاظ العربية. قد يكون هناك تأثير مهمة Premera Blue Cross.

中文 (Chinese):
本通知有重要的信息。本通知可能有关於您透过 Premera Blue Cross 提交的
申请或保险的重要讯息。本通知可能有重要日期。您可能需要在截止日期
之前採取行動，以保留您的健康保險或費用補貼。您有權利免費以您的母
語得到本訊息和幫助。請撥電話 800-722-1471 (TTY: 800-842-5357).

Oromo (Cushite):
Beekisinsi kun odeffannoo baarbachaasaa qaba. Beekisisti kun sagantaa
yooken karaa Premera Blue Cross tiin tajaajila keessan ilaachisee
odeffannoo baarbachaasaa qabaachuu danda’a. Guyyaaawan murteessaa
tan’ee beekisiska kana keessatti iilaalaa. Tarii kaffaltidhaan deeggarmamu
yooken tajaajila fayyaa keessanif guyyaa dhumaa iratti wanti rawaawatna
jiraachuu danda’a. Kaffaltii irraa biilisa haala ta’een afana keessanin
odeffannoo argachuu fi deeggarsa aragachuu mingga ni qabaattu.
Lakkoofsaa biiibillaa 800-722-1471 (TTY: 800-842-5357) ti biiibillaa.

Français (French):
Cet avis a d’importantes informations. Cet avis peut avoir d’importantes
informations sur votre demande ou la couverture par l’intermédiaire de
Premera Blue Cross. Le présent avis peut contenir des dates clés. Vous
devrez peut-être prendre des mesures par certains délais pour maintenir
votre couverture de santé ou d’aide avec les coûts. Vous avez le droit
d’obtenir cette information et de l’aides dans votre langue à aucun coût.
Appelez le 800-722-1471 (TTY: 800-842-5357).

Kreyòl ayisyen (Creole):
Avis siila a gen Enfòmasyon Enpòtand la. Avis siila a kapab genyen
enfòmasyon enpòtan konsènan aplikasyon w lan oswa konvènt kouveti
asiens lan atravè Premera Blue Cross. Kapab genyen dat ki enpòtan nan
asiens a. Ou ka gen pou pou anfòt akosyon avo setan dat limit pou ka
konne kouveti asiens sante w la oswa pou yo ka ede w avèk ams yo.
Se dwa w pou resevwa enfòmasyon sa a ak asistans nan lang ou pale a,
san ou pa gen pou peye sou. Rate nan 800-722-1471
(TTY: 800-842-5357).

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Diese Benachrichtigung enthält wichtige Informationen. Diese
Benachrichtigung enthält unter Umständen wichtige Informationen
bezüglich Ihres Antrags auf Krankenversicherungsschutz durch Premera
Blue Cross. Suchen Sie nach eventuellen wichtigen Terminen in dieser
Benachrichtigung. Sie könnten bis zu bestimmten Stichtagen handeln
müssen, um Ihren Krankenversicherungsschutz oder Hilfe mit den Kosten
dazu zu behalten. Sie haben das Recht, kostenlose Hilfe und Informationen
in Ihrer Sprache zu erhalten. Rufen Sie an unter 800-722-1471
(TTY: 800-842-5357).

Hmooj (Hmong):
Tsab ntawv tshaj xo no muaj cov ntshib lus tseem ceeb. Tjøj taum
ntawv tshaj xo no muaj cov ntsib lus tseem ceeb mok dain mtawv
thov kev pob los yog kog qhov kev pob cuam los ntawv Premera Blue
Cross. Tjøj taum cov hnbv tseem ceeb uas sau rau hauv daim ntawv
no. Tjøj taum kog jyu qyu uaa qeem yam uaa pob kom kog uaa tus pub
nhau cov caij nyong uas teev tseg rau hauv daim ntawv mo mas kog jhaj
yuq yuq baais kev pob cuam kho moh los yog kev pob pem teh nji qho kho
moh ntawv. Kog muaj caij kom laww muab cov ntshib lus no uas tau muab sau
uak jhaj hom lus pub dawv rau jhaj. Hu rau 800-722-1471
(TTY: 800-842-5357).

Iloko (Ilocano):
Daytoy a Pakdaar ket naglaon iti Napateg nga Impomarsion. Daytoy a
pakdaar mabalin nga adda ket naglaon iti napateg nga impomarsion
tapanggep iti aplikasyon ochiyo wara coverage babaen iti Premera Blue
Cross. Daytoy ket mabalin dagiti importante a pelta iiti daytoy a pakdaar.
Mabalin nga adda rumbeng nga aramidenyo nga addang sakbay dagiti
dagiti partikular a naituding nga adda aldaw tapno mapagtalaydiegyo ti
toggle ti salun-atyo wara tongol kadagiti gastos. Adda karbenganyo a mangala iti
daytoy nga impomarsion ken tongol ti bukodyo a pagsasao nga awan ti
bayadanyo. Tumawag iti numero nga 800-722-1471 (TTY: 800-842-5357).

Italiano (Italian):
Questo avviso contiene informazioni importanti. Questo avviso può contenere
informazioni importanti sulla tua domanda o copertura attraverso Premera
Blue Cross. Potrebbero esserci date chiave in questo avviso. Potrebbe
essere necessario un tuo intervento entro una scadenza determinata per
consentirti di mantenere la tua copertura o sovvenzione. Hai il diritto
di ottenere queste informazioni e assistenza nella tua lingua gratuitamente.
Chiamare 800-722-1471 (TTY: 800-842-5357).
Premera Blue Cross accomplishment information is important. This notification may contain significant information about your coverage or costs. You have the right to receive this information and assistance in your language. Please make sure to check the dates listed on this notice for your coverage or costs. Call 1-800-722-1471 (TTY: 800-842-5357) for assistance.

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