Repository Corticotropin Injection



Clinical Policy: Repository Corticotropin Injection (H.P. Acthar Gel, Purified Cortrophin Gel)

Reference Number: PA.CP.PHAR.168

Effective Date: 01/2018

Last Review Date: 01/2023

Coding Implications
Revision Log

Description

Repository corticotropin injection (H.P. Acthar[®] Gel, Purified Cortrophin Gel) is adrenocorticotropic hormone (ACTH) in gelatin.

FDA Approved Indication(s)

H.P. Acthar Gel is indicated for the treatment of infantile spasms in infants and children under 2 years of age as monotherapy.

H.P. Acthar Gel and Purified Cortrophin Gel are indicated for the treatment of acute exacerbations of multiple sclerosis (MS) in adults.

Policy/Criteria

It is the policy of PA Health & Wellness that H.P. Acthar Gel is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

- **A. Infantile Spasms** (must meet all):
 - 1. Diagnosis of Infantile Spasms;
 - 2. Request is for H.P. Acthar Gel;
 - 3. Diagnosis is confirmed by electroencephalogram (EEG);
 - 4. Age < 2 years;
 - 5. Prescribed by or in consultation with a neurologist;
 - 6. Dose does not exceed 150 U/m² per day (divided into twice daily injections of 75 U/m²).

Approval duration: 3 months

B. Multiple Sclerosis (must meet all):

- 1. Diagnosis of multiple sclerosis (MS);
- 2. Age \geq 18 years;
- 3. Prescribed by or in consultation with a neurologist;
- 4. Prescribed for acute exacerbations of MS;
- 5. Failure of a recent (within the last 30 days) trial of at least 7 day course of corticosteroid therapy for acute exacerbations of MS, unless contraindicated or clinically significant adverse effects are experienced;
- 6. Member has not received treatment with H.P. Acthar Gel or Purified Cortrophin Gel for the current MS exacerbation;
- 7. Member has been adherent to disease modifying therapy for MS (e.g., Aubagio[®], Avonex[®], Betaseron[®], Copaxone[®], Gilenya[®], Plegridy[®], Rebif[®]) or a clinical rationale must be provided for why the member is not using disease modifying therapy;

Repository Corticotropin Injection



- 8. For H.P. Acthar Gel requests, member must use Purified Cortrophin Gel, if available, unless contraindicated or clinically significant adverse effects are experienced;
- 9. Dose does not exceed 120 units (1.5mL) per day and 6 vials total (see Appendix D).

Approval duration: 3 weeks

C. Nephrotic Syndrome (must meet all):

- 1. Diagnosis of nephrotic syndrome associated with one of the following (a f):
 - a. Idiopathic membranous nephropathy (IMN);
 - b. Focal segmental glomerulosclerosis;
 - c. Minimal change disease (MCD);
 - d. Membranoproliferative glomerulonephritis;
 - e. Lupus nephritis;
 - f. IgA nephropathy;
- 2. Prescribed by or in consultation with a nephrologist;
- 3. Age > 2 years;
- 4. Failure of oral corticosteroid therapy, unless contraindicated or clinically significant adverse effects are experienced;
- 5. For IMN and MCD: Failure of cyclophosphamide, unless contraindicated or clinically significant adverse effects are experienced;
- 6. Failure of two of the following, unless contraindicated or clinically significant adverse effects are experienced: tacrolimus, cyclosporine, mycophenolate, rituximab;
- 7. For H.P. Acthar Gel requests, member must use Purified Cortrophin Gel, if available, unless contraindicated or clinically significant adverse effects are experienced;
- 8. Dose does not exceed 80 units (1 mL) per day.

Approval duration: 3 months

D. Rheumatic Disorders, Collagen, Dermatologic, Ophthalmic, Respiratory Diseases, Allergic States (must meet all):

- 1. Diagnosis of one of the following (a f):
 - a. Rheumatic disorder: As adjunctive therapy for short-term administration (to tide the patient over an acute episode or exacerbation) in: psoriatic arthritis, rheumatoid arthritis, including juvenile rheumatoid arthritis (selected cases may require low-dose maintenance therapy), ankylosing spondylitis, acute gouty arthritis:
 - b. Collagen disease: During an exacerbation or as maintenance therapy in selected cases of: systemic lupus erythematosus; systemic dermatomyositis (polymyositis);
 - c. Dermatologic disease: severe erythema multiforme, severe psoriasis, Stevens-Johnson syndrome;
 - d. Ophthalmic disease: keratitis, iritis, iridocyclitis, diffuse posterior uveitis and choroiditis, optic neuritis, chorioretinitis, allergic conjunctivitis, anterior segment inflammation;
 - e. Respiratory diseases: symptomatic sarcoidosis;
 - f. Allergic states: serum sickness, atopic dermatitis;
- 2. Prescribed by or in consultation with appropriate specialist;
- 3. Age > 2 years;

Repository Corticotropin Injection



- 4. Trial and failure, contraindication or intolerance of ALL standard therapies for requested condition as recommended by consensus treatment guidelines;
- 5. Dose does not exceed 80 units (1 mL) per day.

Approval duration: 1 month

E. Other diagnoses/indications

1. Refer to PA.CP.PMN.53

II. Continued Approval

A. Infantile Spasms (must meet all):

- 1. Currently receiving medication via PA Health & Wellness benefit or member has previously met all initial approval criteria or the Continuity of Care policy (PA.LTSS.PHAR.01) applies;
- 2. Age < 2 years;
- 3. Member is responding positively to therapy;
- 4. If request is for a dose increase, new dose does not exceed 150 U/m² (divided into twice daily injections of 75 U/m²).

Approval duration: 3 months (one renewal limit)

B. Multiple Sclerosis:

1. HP Acthar is not indicated for continuous use for this indication. Reauthorization request must be reviewed against the initial approval criteria.

Approval duration: Not applicable

C. Nephrotic Syndrome (must meet all):

- 1. Currently receiving medication via PA Health & Wellness benefit and documentation supports positive response to therapy or the Continuity of Care Policy (PA.LTSS.PHAR.01) applies;
- 2. Member is responding positively to therapy;
- 3. For H.P. Acthar Gel requests, member must use Purified Cortrophin Gel, if available, unless contraindicated or clinically significant adverse effects are experienced;
- 4. If request is for a dose increase, new dose does not exceed 80 units (1 mL) per day.

Approval duration: 3 months

D. Rheumatic Disorders, Collagen, Dermatologic, Ophthalmic, Respiratory Diseases, Allergic States (must meet all):

- 1. Currently receiving medication via PA Health & Wellness benefit and documentation supports positive response to therapy or the Continuity of Care Policy (PA.LTSS.PHAR.01) applies;
- 2. Prescribed by or in consultation with appropriate specialist;
- 3. Age > 2 years;
- 4. Documentation indicating positive response to therapy;
- 5. Trial and failure, contraindication or intolerance of ALL standard therapies for requested condition as recommended by consensus treatment guidelines;
- 6. If request is for a dose increase, new dose does not exceed 80 units (1 mL) per day.

Approval duration: 3 months



E. Other Diagnoses/Indications (1 or 2):

1. Currently receiving medication via PA Health & Wellness benefit and documentation supports positive response to therapy or the Continuity of Care Policy (PA.LTSS.PHAR.01) applies

Approval duration: Duration of request or 3 months (whichever is less); or

2. Refer to PA.CP.PMN.53

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 – PA.CP.PMN.53;

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

ACTH: adrenocorticotropic hormone IMN: idiopathic membranous nephropathy

EEG: electroencephalogram MCD: minimal change disease

FDA: Food and Drug Administration MS: multiple sclerosis

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.

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
tacrolimus	Nephrotic syndrome: 0.05-0.075 mg/kg/day	0.075 mg/kg/day
(Prograf [®])	PO in two divided doses 12 hours apart	
cyclosporine	Nephrotic syndrome: 3.5-5 mg/kg/day PO in	5 mg/kg/day
(Neoral [®] ,	two equally divided doses 12 hours apart	
Sandimmune [®])		
cyclophosphamide	Nephrotic syndrome: 20 mg/kg/day PO for a	20 mg/kg/day
	6-month course with alternating monthly	
	cycles of PO and IV corticosteroids	
mycophenolate	Nephrotic syndrome: 2-3 g/day PO	3 g/day
(CellCept [®])		
Rituxan [®] , Riabni [™] ,	Nephrotic syndrome: 375 mg/m ² IV every	375 mg/m ² /week
Ruxience TM ,	week	
Truxima®		
(rituximab)		
methylprednisolone	Acute exacerbation of multiple sclerosis:	160 mg/day
(Medrol®, Solu-	IM: 160 mg IM daily for 1 week, followed by	
Medrol®)	64 mg every other day for 1 month	
	Oral: 160 mg PO per day for 1 week,	
	followed by 64 mg every other day for 1	
	month	



Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
prednisone (Deltasone [®])	Acute exacerbation of multiple sclerosis: 200 mg/day PO for 1 week, followed by 80 mg PO every other day for 1 month	200 mg/day
dexamethasone (Decadron®)	Acute exacerbation of multiple sclerosis: 30 mg PO QD for 1 week followed by 4 to 12 mg PO every other day for 1 month	30 mg/day

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):
 - o Intravenous administration
 - o Patients with 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;
 - Treatment of FDA approved indications accompanied by primary adrenocortical insufficiency or adrenocortical hyperfunction
 - o H.P. Acthar Gel Only:
 - Administration of live or live attenuated vaccines in patients receiving immunosuppressive doses of H.P Acthar Gel;
 - Children under 2 years of age with suspected congenital infections;
- Boxed warning(s): none reported

Appendix D: General Information

- Common adverse reactions for H.P. Acthar Gel are similar to those of corticosteroids and include fluid retention, alteration in glucose tolerance, elevation in blood pressure, behavioral and mood changes, increased appetite and weight gain.
- The initial approval of H.P. Acthar Gel occurred prior to the Kefauver-Harris amendment to the Federal Food, Drug and Cosmetic Act of 1962, which introduced the requirement of "substantial evidence" of two adequate and well controlled trials. At the time of the original approval drug manufacturers only had to show the drug was safe for use in humans. The original data included case reports from a few physicians describing patients with conditions originally treated with Acthar powder that were transferred to treatment with Acthar Gel and gave dosing guidance for treatment of these individual conditions.
- The efficacy HP Acthar Gel has in the following conditions has not been proven in well-designed clinical trials and its use is considered experimental. They are also not FDA approved indications:
 - O Rheumatic disorders: As adjunctive therapy for short-term administration (to tide the patient over an acute episode or exacerbation) in: psoriatic arthritis, rheumatoid arthritis, including juvenile rheumatoid arthritis (selected cases may require low-dose maintenance therapy), ankylosing spondylitis
 - o Collagen diseases: During an exacerbation or as maintenance therapy in selected cases of: systemic lupus erythematosus; systemic dermatomyositis (polymyositis)



- o Dermatologic diseases: severe erythema multiforme, Stevens-Johnson syndrome
- o Allergic states: serum sickness
- Ophthalmic diseases: severe acute and chronic allergic and inflammatory processes involving the eye and its adnexa such as: keratitis, iritis, iridocyclitis, diffuse posterior uveitis and choroiditis; optic neuritis; chorioretinitis; anterior segment inflammation
- o Respiratory diseases: symptomatic sarcoidosis
- Although H.P. Acthar Gel use in nephrotic syndrome has not been evaluated in well-designed clinical trials, it would be appropriate to allow use after exhausting alternative treatment options with higher quality of evidence to support their use that are supported by the Kidney Disease: Improving Global Outcomes (KDIGO) guidelines for glomerulonephritis (e.g., corticosteroids, cyclophosphamide, cyclosporine, tacrolimus, mycophenolate, Rituxan).
- For acute exacerbations in multiple sclerosis, the results of trials that analyzed direct comparisons have shown no significant differences between ACTH and methylprednisolone (MP) in both rate and degree of recovery after exacerbation. Indirect comparisons suggest a significantly greater effect of MP versus ACTH, with MP conferring greater benefit compared with ACTH (odds ratio (OR) 0.20, 95% CI 0.09 to 0.45 vs OR 0.46, 95% CI 0.28 to 0.77).
- Studies evaluating the use of ACTH in acute exacerbations of multiple sclerosis ranged from 3 to 21 days in length and evaluated a reducing course of intramuscular ACTH over 14 days, consisting of 80 units for 7 days, 40 units for 4 days, and 20 units for 3 days. To date, retreatment with ACTH has not been evaluated in clinical trials.
- For acute exacerbation of multiple sclerosis, dosage and frequency should be individualized to the patient's needs, taking into account the patient's medical condition, severity of illness, and initial response to treatment. Prolonged use may lead to adrenal insufficiency or recurrent symptoms, which make it difficult to stop treatment. It may be necessary to taper the dose and gradually discontinue.

V. Dosage and Administration

Drug Name	Indication	Dosing Regimen	Maximum Dose
H.P. Acthar Gel	Infantile Spasms	150 U/m ² IM divided into twice daily injections of 75 U/m ² administered over a 2-week period. After 2 weeks, H.P. Acthar Gel should be gradually tapered over a 2-week period	150 U/m ² /day
H.P. Acthar Gel, Purified Cortrophin Gel	Acute exacerbation of MS	80-120 units IM/SC daily for 2-3 weeks	120 units/day
H.P. Acthar Gel, Purified Cortrophin Gel	Nephrotic syndrome	40-80 units IM/SC every 24-72 hours	80 units/day

VI. Product Availability

Multi-dose vial: 5 mL containing 80 USP units per mL



VII. References

- 1. H.P. Acthar Prescribing Information. Hazelwood, MO: Mallinckrodt ARD, Inc.; October 2021. Available at https://www.acthar.com/ . Accessed October 24, 2022.
- 2. Purified Cortrophin Gel Prescribing Information. Baudette, MN: ANI Pharmaceuticals, Inc.; November 2021. Available at: www.cortrophin.com. Accessed October 24, 2022.
- 3. Go CY, Mackay MT, Weiss SK, et al. Evidenced-based guideline update: Medical treatment of infantile spasms: Report of the guideline development subcommittee of the American Academy of Neurology and the Practice Committee of the Child Neurology Society. *Neurology*. June 12, 2012; 78(24): 1974-80. *Reaffirmed May 22, 2021*.
- 4. Pellock JM, Hrachovy R, Shinnar S, et al. Infantile spasms: A U.S. consensus report. *Epilepsia*. October 2010; 51(10): 2175-89.
- 5. Berkovich R, Agius M. Mechanisms of action of ACTH in the management of relapsing forms of multiple sclerosis. *Ther Adv Neurol Disord*. March 2014; 7(2): 83–96.
- 6. Filippini G, Brusaferri F, Sibley WA, et al. Corticosteroids or ACTH for acute exacerbations in multiple sclerosis. *Cochrane Database Syst Rev.* 2000; (4): CD001331.
- 7. Berkovich R, Bakshi R, Amezcua L, et al. Adrenocorticotropic hormone versus methylprednisolone added to interferon B in patients with multiple sclerosis experiencing breakthrough disease: A randomized, rater-blinded trial. *Ther Adv Neurol Disord*. January 2017; 10(1): 3-17.
- 8. Grant AR, Day GS, Ann Marrie R, et al. Practice guidelines: Disease-modifying therapies for adults with multiple sclerosis: report of the Guideline Development, Dissemination, and Implementation Subcommittee of the American Academy of Neurology. Neurology. 2018; 90(17): 777-788. Full guideline available at: https://www.aan.com/Guidelines/home/GetGuidelineContent/904. Accessed October 24, 2022.
- 9. Beck L, Bomback AS, Choi M, et al. KDOQI commentary on the 2012 KDIGO clinical practice guidelines for glomerulonephritis. *Am J Kidney Dis.* 2013: 62(3): 403-441.
- 10. Lieberman KV and Pavlova-Wolf A. Adrenocorticotropic hormone therapy for the treatment of idiopathic nephrotic syndrome in children and young adults: A systematic review of early clinical studies with contemporary relevance. *J Nephrol.* 2017; 30: 35-44.
- 11. Hladunewich MA, Cattran D, Beck LH, et al. A pilot study to determine the dose and effectiveness of adrenocorticotrophic hormone (H.P. Acthar® Gel) in nephrotic syndrome due to idiopathic membranous nephropathy. *Nephrol Dial Transplant*. 2014; 29: 1570-1577.
- 12. Hogan J, Bomback AS, Mehta K, et al. Treatment of idiopathic FSGS with adrenocorticotropic hormone gel. *Clin J Am Soc Nephrol*. December 6, 2013; 8(12): 2072-2081.
- 13. Chen Y, Schieppati A, Cai G, et al. Immunosuppression for membranous nephropathy: A systematic review and meta-analysis of 36 clinical trials. *Clin J Am Soc Nephrol*. May 7, 2013; 8(5): 787-796.
- 14. Madan A, Mijovic-Das S, Stankovic A, et al. Acthar gel in the treatment of nephrotic syndrome: A multicenter retrospective case series. *BMC Nephrol*. March 31, 2016; 17:37.
- 15. Thompson AJ, Kennard C, Swash M, Summers B, Yuill GM, Shepherd DI, et al. Relative efficacy of intravenous methylprednisolone and ACTH in the treatment of acute relapse in MS. Neurology 1989;39(7):969–71.

Repository Corticotropin Injection



- 16. Clinical Pharmacology [database online]. Elsevier, Inc.; 2022. Available at: https://www.clinicalkey.com/pharmacology/. Accessed October 24, 2022.
- 17. Thompson AJ, Kennard C, Swash M, et al. Relative efficacy of intravenous methylprednisolone and ACTH in the treatment of acute relapse in MS. Neurology. 1989;39(7):969-971.
- 18. Rose AS, Kuzma JW, Kurtzke JF, et al. Cooperative Study in the Evaluation of Therapy in Multiple Sclerosis. ACTH vs. Placebo--Final Report. Neurology. 1968 Jun;18(6):Suppl:1-10.
- 19. Trautmann A, Vivarelli M, Samuel S, et al. IPNA clinical practice recommendations for the diagnosis and management of children with steroid-resistant nephrotic syndrome. Pediatric Nephrology (2020) 35: 1529-1561.
- 20. KDIGO 2021 Clinical Practice Guideline for the Management of Glomerular Diseases. Official Journal of the International Society of Nephrology. 2021 October; 100 (4S): S1-S276. Available at: https://kdigo.org/guidelines/gd/.

Coding Implications

Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

HCPCS	Description
Codes	
J0800	Injection, corticotropin, up to 40 units
J3490	Unclassified drugs (Injection, Cortrophin gel)

Reviews, Revisions, and Approvals	Date	Approval Date
Removed indications not supported by well-designed clinical		
trials.West syndrome – removed EEG requirement to confirm		
diagnosis; added neurologist prescriber requirement. MS- approval		
duration reduced to one month for initial as this medication is not		
indicated to use chronically and for continued approval for MS		
was referred to the initial criteria. References reviewed and		
updated.		
1Q 2019 annual review: references reviewed and updated.	01/2019	
1Q 2020 annual review: added mL quantity limits for multiple	01/2020	
sclerosis and nephrotic syndrome indications; references reviewed		
and updated.		
Revised multiple sclerosis approval duration from 4 weeks to 3	07/2020	
weeks and added max vial quantity of 6 vials total; revised		
Appendix B and D; references reviewed and updated.		
1Q 2021 annual review: references reviewed and updated.	01/2021	
Added experimental uses previously stated in Appendix D to	10/2021	
Section III.		

Repository Corticotropin Injection



Reviews, Revisions, and Approvals	Date	Approval Date
1Q 2022 annual review: RT4: added Purified Cortrophin Gel to	01/2022	
policy; for Acthar added step through Purified Cortrophin Gel per		
SDC; for infantile spasm added requirement that diagnosis is		
confirmed by EEG per competitor analysis; references reviewed		
and updated.		
1Q 2023 annual review: added the following for MS requests:	01/2023	
Member has not received treatment with H.P. Acthar Gel or		
Purified Cortrophin Gel for the current MS exacerbation; updated		
HCPCS Codes to include J3490 for unclassified drugs as Purified		
Cortrophin Gel does not yet have a specific assigned HCPCS		
code; references reviewed and updated.		