

<b>Department of Origin:</b> Integrated Healthcare Services	<b>Effective Date:</b> 03/05/24
<b>Approved by:</b> Integrated Health Quality Management Subcommittee	<b>Date approved:</b> 03/05/24
<b>Clinical Policy Document:</b> Neuromodulation, Transcranial Magnetic Stimulation (TMS)	<b>Replaces Effective Clinical Policy Dated:</b> 03/07/23
<b>Reference #:</b> MC/M025	<b>Page:</b> 1 of 8

**PURPOSE:**

The intent of this clinical policy is to ensure care is medically necessary.

Please refer to the member’s benefit document for specific information. To the extent there is any inconsistency between this policy and the terms of the member’s benefit plan or certificate of coverage, the terms of the member’s benefit plan document will govern.

**POLICY:**

Benefits must be available for health care services. Health care services must be ordered by a provider. Health care services must be medically necessary, applicable conservative treatments must have been tried, and the most cost-effective alternative must be requested for coverage consideration.

**GUIDELINES:**

Medical Necessity Criteria – Must satisfy the following: I or II, and none of III

- I. Initial use – must satisfy all of the following: A – D, or E
  - A. Member is aged 18 or older.
  - B. Member’s current major depressive episode (MDE) meets *DSM* criteria for major depressive disorder (MDD).
  - C. Other causes of MDE have been excluded – none of: 1 - 5
    - 1. Bipolar 1 disorder; and
    - 2. Schizoaffective disorder; and
    - 3. Substance/medication-induced depressive disorder; and
    - 4. Depressive disorder due to another medical condition; and
    - 5. Personality disorders.
  - D. Member has demonstrated treatment resistance, during the current episode or a similar previous episode, as supported by both of the following: 1 and 2
    - 1. Member did not experience a *clinically significant response* to adequate *psychopharmacologic medication* trials, as evidenced by the following: a – b, or c
      - a. At least 2 trials involving antidepressants with different mechanisms of action; and
      - b. At least 2 trials involving augmentors; or
      - c. Member developed severe, treatment-limiting adverse (“side”) effects.
    - 2. Member did not experience a *clinically significant response* to an adequate trial of psychotherapy, where acceptable modalities include any of the following: a - c
      - a. Individual psychotherapy; or
      - b. Intensive outpatient program (IOP); or
      - c. Partial hospitalization program (PHP).
  - E. If the member is aged 18 or older and currently receiving electro-convulsive therapy, TMS may be considered reasonable and necessary as a less invasive treatment option.

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<b>Reference #:</b> MC/M025	<b>Page:</b> 2 of 8

II. Continuation/maintenance – must satisfy any of the following: A - B

- A. The member has had a *clinically significant response* to TMS in a previous depressive episode; or
- B. The member is currently receiving or is a candidate for electroconvulsive therapy (ECT) and TMS is considered a less invasive treatment option.

III. Contraindications – none of the following: A - D

- A. Seizure disorder or any history of seizure.  
[Note: Seizures induced by ECT, alcohol withdrawal seizures, or isolated febrile seizures in infancy without subsequent treatment or recurrence are acceptable.]
- B. Presence of acute or chronic psychotic symptoms or disorders (eg, schizophrenia, schizophreniform or schizoaffective disorder) in the current depressive episode.
- C. Neurological conditions (eg, epilepsy, advanced cerebrovascular disease, advanced dementia, increased intracranial pressure, history of repetitive or severe head trauma, or with primary or secondary tumors in the central nervous system [CNS]).
- D. Presence of an implanted magnetic-sensitive medical device located less than or equal to 30 centimeters from the TMS magnetic coil or other implanted metal items (eg, cochlear implant, implanted cardioverter defibrillator [ICD], pacemaker, vagus nerve stimulator [VNS], or metal aneurysm clips or coils, staples, or stents). [Note: Dental amalgam fillings are acceptable for use with TMS.]

**EXCLUSIONS (not limited to):**

Refer to member’s Certificate of Coverage or Summary Plan Description

**DEFINITIONS:**

Clinically significant response:

50% or greater reduction in objective depression rating scales (see Attachment A)

DSM:

The most current edition of the American Psychiatric Association Diagnostic and Statistical Manual of Mental Health Disorders.

Psychopharmacologic medications:

- Selective serotonin reuptake inhibitors (eg, citalopram, fluoxetine, paroxetine, sertraline, Trintellix [vortioxetine], Viibryd [vilazodone])
- Serotonin norepinephrine reuptake inhibitors (eg, desvenlafaxine, duloxetine, Fetzima [levomilnacipran], venlafaxine)
- Bupropion
- Tricyclic antidepressants (eg, amitriptyline, clomipramine, desipramine, nortriptyline)
- Mirtazapine
- Monoamine oxidase inhibitors (eg, selegiline, tranylcypromine)
- Serotonin modulators (eg, nefazodone, trazodone)
- Augmentation with such as, but not limited to, atypical neuroleptics, “thyroid” such as Cytomel (lithium), lithium, anticonvulsants, L-methylfolate

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<b>Reference #:</b> MC/M025	<b>Page:</b> 3 of 8

Prior Authorization: Yes, per network provider agreement

**CODING:**

CPT

90867 Therapeutic repetitive transcranial magnetic stimulation treatment; initial, including cortical mapping, motor threshold determination, delivery and management

90868 Therapeutic repetitive transcranial magnetic stimulation treatment; subsequent delivery and management, per session

90869 Therapeutic repetitive transcranial magnetic stimulation treatment; subsequent motor threshold re-determination with delivery and management

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**REFERENCES:**

1. Integrated Healthcare Services Process Manual UR015 Use of Medical Policy and Criteria
2. Clinical Policy Coverage Determination Guidelines (MP/C009)
3. Perera T, George MS, Grammer G, Janicak PG, Pascual-Leone A, Wirecki TS. The Clinical TMS Society Consensus Review and Treatment Recommendations for TMS Therapy for Major Depressive Disorder. *Brain Stimul* 2016;9:336–346.
4. Brown S, Rittenbach K, Cheung S, et al. Current and Common Definitions of Treatment-Resistant Depression: Findings from a Systematic Review and Qualitative Interviews. *Can J Psychiatry*. 2019;64:380.
5. Alampay MM, Haigney MC, Flanagan MC, Perito RM, Love KM, Grammer GG. Transcranial magnetic stimulation as an antidepressant alternative in a patient with Brugada syndrome and recurrent syncope. *Mayo Clin Proc*. 2014 Nov;89(11):1584-7. doi: 10.1016/j.mayocp.2014.08.010. Epub 2014 Nov 3.
6. Baeken C, Desmyter S, Duprat R, et al. Self-directedness: an indicator for clinical response to the HF-rTMS treatment in refractory melancholic depression. *Psychiatry Res*. 2014 Dec 15; 220 (1-2):269-74. doi: 10.1016/j.psychres.2014.07.084. Epub 2014 Aug 8.
7. Baeken C, Marinazzo D, Wu GR, et al. Accelerated HF-rTMS in treatment-resistant unipolar depression: Insights from subgenual anterior cingulate functional connectivity. *World J Biol Psychiatry*. 2014 May;15(4):286-97. doi: 10.3109/15622975.2013.872295. Epub 2014 Jan 21.
8. Berlim MT, Van den Eynde F, Tovar-Perdomo S, Chachamovich E, Zangen A, Turecki G. Augmenting antidepressants with deep transcranial magnetic stimulation (DTMS) in treatment-resistant major depression. *World J Biol Psychiatry*. 2014 Sep;15(7):570-8. doi: 10.3109/15622975.2014.925141. Epub 2014 Jul 22.
9. Berlim MT, van den Eynde F, Tovar-Perdoo S, Daskalakis ZJ. Response, remission and drop-out rates following high-frequency repetitive transcranial magnetic stimulation (rTMS) for treating major depression: a systematic review and meta-analysis of randomized, double-blind and sham-controlled trials. *Psychol Med*. 14 Jan;44(2):225-39. doi: 10.1017/S0033291713000512. Epub 2013 Mar 18.
10. Best SR, Griffin B. Bination therapy utilizing ketamine and transcranial magnetic stimulation for treatment-resistant depression: a case report. *Int J Neurosci*. 2014 Jul 23. [Epub ahead of print]
11. Brunelin J, Jalenques I, Trojak B, et al. The efficacy and safety of low frequency repetitive transcranial magnetic stimulation for treatment-resistant depression: the results from a large multicenter French RCT. *Brain Stimul*. 2014 Nov-Dec;7(6):855-63. doi: 10.1016/j.brs.2014.07.040. Epub 2014 Aug 7.
12. Brunoni AR, Baeken C, Machado-Vieira R, Gattaz WF, Vanderhasselt MA. BDNF blood levels after non-invasive brain stimulation interventions in major depressive disorder: a systematic review and meta-analysis. *World J Biol Psychiatry*. 2015 Feb;16(2):114-22. doi: 10.3109/15622975.2014.958101. Epub 2014 Sep 29.

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<b>Reference #:</b> MC/M025	<b>Page:</b> 4 of 8

13. Brunoni AR, Vanderhasselt MA. Working memory improvement with non-invasive brain stimulation of the dorsolateral prefrontal cortex: a systematic review and meta-analysis. *Brain Cogn.* 2014 Apr;86:1-9. doi: 10.1016/j.bandc.2014.01.008. Epub 2014 Feb 8.
14. Burton C, Gill S, Clarke P, Galletly C. Maintaining remission of depression with repetitive transcranial magnetic stimulation during pregnancy: a case report. *Arch Womens Ment Health.* 2014 Jun;17(3):247-50. doi: 10.1007/s00737-014-0418-7. Epub 2014 Mar 18.
15. Chappell A, Seagly K, Okwara L, Bayan S, Sayegh P, Neumann S. B-69Cognitive Performance as a Function of Low-Frequency, Repetitive Transcranial Magnetic Stimulation Administration to the Right Dorsolateral Prefrontal Cortex and Supplementary Motor Area. *Arch Clin Neuropsychol.* 2014 Sep;29(6):562-3. doi: 10.1093/arclin/acu038.157.
16. Chen JJ, Liu Z, Zhu D, et al. Bilateral vs. unilateral repetitive transcranial magnetic stimulation in treating major depression: a meta-analysis of randomized controlled trials. *Psychiatr Res.* 2014 Sep 30;219(1):51-7. doi: 10.1016/j.psychres.2014.05.010. Epub 2014 May 14.
17. Choi KM, Jang KM, Jang KI, et al. The effects of 3 weeks of rTMS treatment on P200 amplitude in patients with depression. *Neurosci Lett.* 2014 Aug 8;577:22-7. doi: 10.1016/j.neulet.2014.06.003. Epub 2014 Jun 10.
18. Cook IA, Espinoza R, Leuchter AF. Neuromodulation for depression: invasive and noninvasive (deep brain stimulation, transcranial magnetic stimulation, trigeminal nerve stimulation). *Neurosurg Clin N Am.* 2014 Jan;25(1):103-16. doi: 10.1016/j.nec.2013.10.002.
19. De Raedt R, Vanderhasselt MA, Baeken C. Neurostimulation as an intervention for treatment resistant depression: From research on mechanisms towards targeted neurocognitive strategies. *Clin Psychol Rev.* 2014 Nov 4. pii: S0272-7358(14)00152-4. doi: 10.1016/j.cpr.2014.10.006. [Epub ahead of print]
20. Dell'Osso B, Oldani L, Camuri G, et al. Augmentative repetitive Transcranial Magnetic Stimulation (rTMS) in the acute treatment of poor responder depressed patients: a comparison study between high and low frequency stimulation. *Eur Psychiatry.* 2015 Feb;30(2):271-6. doi: 10.1016/j.eurpsy.2014.12.001. Epub 2015 Jan 5.
21. Desmyter S, Duprat R, Baeken C, Bijttebier S, van Heeringen K. The acute effects of accelerated repetitive Transcranial Magnetic Stimulation on suicide risk in unipolar depression: preliminary results. *Psychiatr Danub.* 2014 Nov;26 Suppl 1:48-52.
22. Downar J, Geraci J, Salomons TV, et al. Anhedonia and reward-circuit connectivity distinguish nonresponders from responders to dorsomedial prefrontal repetitive transcranial magnetic stimulation in major depression. *Biol Psychiatry.* 2014 Aug 1;76(3):176-85. doi: 10.1016/j.biopsych.2013.10.026. Epub 2013 Nov 28.
23. Dumas R, Boyer L, Richieri R, Guedj E, Auquier P, Lancon C. [Health-related quality of life assessment in depression after low-frequency transcranial magnetic stimulation]. *Encephale.* 2014 Feb;40(1):74-80. doi: 10.1016/j.encep.2013.04.004. Epub 2013 Oct 1.
24. Dunner DL, Aaronson ST, Sackeim HA, et al. A multisite, naturalistic, observational study of transcranial magnetic stimulation for patients with pharmacoresistant major depressive disorder: durability of benefit over a 1-year follow-up period. *J Clin Psychiatry.* 2014 Dec;75(12):1394-401. doi: 10.4088/JCP.13m08977.
25. Fidalgo TM, Morales-Quezada JL, Muzy GS et al. Biological markers in noninvasive brain stimulation trials in major depressive disorder: a systematic review. *J ECT.* 2014 Mar;30(1):47-61.
26. Gaynes BN, Lloyd SW, Lux L, et al. Repetitive transcranial magnetic stimulation for treatment-resistant depression: a systematic review and meta-analysis. *J Clin Psychiatry.* 2014 May;75(5):477-89; quiz 489. doi: 10.4088/JCP.13r08815.
27. George S, Raman R, Bemedek DM. two-site pilot randomized 3 day trial of high dose left prefrontal repetitive transcranial magnetic stimulation (rTMS) for suicidal inpatients. *Brain Stimul.* 2014 May-Jun;7(3):421-31. doi: 10.1016/j.brs.2014.03.006. Epub 2014 Mar 19.

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<b>Reference #:</b> MC/M025	<b>Page:</b> 5 of 8

28. Harel EV, Rabany L, Deutsch L, Bloch Y, Zangen A, Levkovitz Y. H-coil repetitive transcranial magnetic stimulation for treatment resistant major depressive disorder: An 18-week continuation safety and feasibility study. *World J Biol Psychiatry*. 2014 May;15(4):298-306. doi: 10.3109/15622975.2011.639802. Epub 2012 Feb 7.
29. Harvey PO, Van den Eynde F, Zangen A, Berlim MT. Neural correlates of clinical improvement after deep transcranial magnetic stimulation (DTMS) for treatment-resistant depression: a case report using functional magnetic resonance imaging. *Neurocase*. 2015 Feb;21(1):16-22. doi: 10.1080/13554794.2013.860173. Epub 2013 Dec 7.
30. Hizli Sayar G, Ozten E, Tufan E, et al. Transcranial magnetic stimulation during pregnancy. *Arch Womens Ment Health*. 2014 Aug;17(4):311-5. doi: 10.1007/s00737-013-0397-0. Epub 2013 Nov 20.
31. Jin Y, Phillips B. A pilot study of the use of EEG-based synchronized Transcranial Magnetic Stimulation (sTMS) for treatment of Major Depression. *BMC Psychiatry*. 2014 Jan 18;14:13. doi: 10.1186/1471-244X-14-13.
32. Jovicic M, Radovanovic S, Maric NP, Kostic V. Repetitive transcranial magnetic stimulation as an adjuvant method in the treatment of depression: preliminary results]. *Srp Arh Celok Lek*. 2014 May-Jun;142(5-6):280-5.
33. Kedzior KK, Azorina V, Reitz SK. More female patients and fewer stimuli per session are associated with the short-term antidepressant properties of repetitive transcranial magnetic stimulation (rTMS): a meta-analysis of 54 sham-controlled studies published between 1997-2013. *Neuropsychiatr Dis Treat*. 2014 May 7;10:727-56. doi: 10.2147/NDT.S58405. eCollection 2014.
34. Kedzior KK, Reitz SK, Azorina V, Loo C. Durability of the antidepressant effect of the high-frequency repetitive transcranial magnetic stimulation (rTMS) in the absence of maintenance treatment in major depression: A systematic review and meta-analysis of 16 double-blind, randomized, sham-controlled trials. *Depress Anxiety*. 2015 Mar;32(3):193-203. doi: 10.1002/da.22339. Epub 2015 Feb 13.
35. Kedzior KK, Reitz SK. Short-term efficacy of repetitive transcranial magnetic stimulation (rTMS) in depression- reanalysis of data from meta-analyses up to 2010. *BMC Psychol*. 2014 Oct 7;2(1):39. doi: 10.1186/s40359-014-0039-y. eCollection 2014.
36. Kreuzer PM, Schecklmann M, Lehner A, et al. The ACDC pilot trial: targeting the anterior cingulate by double cone coil rTMS for the treatment of depression. *Brain Stimul*. 2015 Mar-Apr;8(2):240-6. doi: 10.1016/j.brs.2014.11.014. Epub 2014 Nov 29.
37. Krstic J, Buzadzic I, Milanovic SD, Ilic NV, Pajic S, Ilic TV. Low-frequency repetitive transcranial magnetic stimulation in the right prefrontal cortex combined with partial sleep deprivation in treatment-resistant depression: a randomized sham-controlled trial. *J ECT*. 2014 Dec;30(4):325-31. doi: 10.1097/YCT.0000000000000099.
38. Lefaucher JP, Andre-Obadia N, Antal A, et al. Evidence-based guidelines on the therapeutic use of repetitive transcranial magnetic stimulation (rTMS). *Clin Neurophysiol*. 2014 Nov;125(11):2150-206. doi: 10.1016/j.clinph.2014.05.021. Epub 2014 Jun 5.
39. Lepping P, Schonfeldt-Lecuona C, Sambhi RS, et al. A systematic review of the clinical relevance of repetitive transcranial magnetic stimulation. *Acta Psychiatr Scand*. 2014 Nov;130(5):326-41. doi: 10.1111/acps.12276. Epub 2014 Apr 12.
40. Levkovitz Y, Isserles M, Padberg F, et al. Efficacy and safety of deep transcranial magnetic stimulation for major depression: a prospective multicenter randomized controlled trial. *World Psychiatry*. 2015 Feb;14(1):64-73. doi: 10.1002/wps.20199.
41. Li CT, Chen MH, Juan CH, et al. Efficacy of prefrontal theta-burst stimulation in refractory depression: a randomized sham-controlled study. *Brain*. 2014 Jul;137(Pt 7):2088-98. doi: 10.1093/brain/awu109. Epub 2014 May 10.
42. Lipsman N, Sankar T, Downar J, Kennedy SH, Lozano AM, Giacobbe P. Neuromodulation for treatment-refractory major depressive disorder. *CMAJ*. 2014 Jan 7;186(1):33-9. doi: 10.1503/cmaj.121317. Epub 2013 Jul 29.



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<b>Reference #:</b> MC/M025	<b>Page:</b> 6 of 8

43. Liu B, Zhang Y, Zhang L, Li L. Repetitive transcranial magnetic stimulation as an augmentative strategy for treatment-resistant depression, a meta-analysis of randomized, double-blind and sham-controlled study. *BMC Psychiatry*. 2014 Nov 30;14(1):342. doi: 10.1186/s12888-014-0342-4.
44. Mahayana IT, Sari DC, Chen CY, Juan CH, Muggleton NG. The potential of transcranial magnetic stimulation for population-based application: a region-based illustrated brief overview. *Int J Neurosci*. 2014 Oct;124(10):717-23. doi: 10.3109/00207454.2013.872641. Epub 2014 Jan 28.
45. McGirr A, Van den Eynde F, Chachamovich E, Fleck MP, Berlim MT. Personality dimensions and deep repetitive transcranial magnetic stimulation (DTMS) for treatment-resistant depression: a pilot trial on five-factor prediction of antidepressant response. *Neurosci Lett*. 2014 Mar 20;563:144-8. doi: 10.1016/j.neulet.2014.01.037. Epub 2014 Jan 30.
46. McGirr A, Van den Eynde F, Tovar-Perdomo S, Fleck MP, Berlim MT. Effectiveness and acceptability of accelerated repetitive transcranial magnetic stimulation (rTMS) for treatment-resistant major depressive disorder: an open label trial. *J Affect Disord*. 2015 Mar 1;173:216-20. doi: 10.1016/j.jad.2014.10.068. Epub 2014 Nov 11.
47. Micallef-Trigona B. Comparing the effects of repetitive transcranial magnetic stimulation and electroconvulsive therapy in the treatment of depression: a systematic review and meta-analysis. *Depress Res Treat*. 2014;2014:135049. doi: 10.1155/2014/135049. Epub 2014 Jul 21.
48. Nadeau SE, bowers D, Jones TL, Wu SS, Triggs WJ, Heilman KM. Cognitive effects of treatment of depression with repetitive transcranial magnetic stimulation. *Cogn Behav Neurol*. 2014 Jun;27(2):77-87. doi: 10.1097/WNN.0000000000000031.
49. Nakama H, Garcia A, O'Brien K, Ellis N. Case report of a 24-year-old man with resolution of treatment-resistant major depressive disorder and comorbid PTSD using rTMS. *J ECT*. 2014 Mar;30(1):e9-10. doi: 10.1097/YCT.0b013e182a2705d.
50. Ottawa (ON): Canadian Agency for Drugs and Technologies in Health. Transcranial Magnetic Stimulation for the Treatment of Adults with PTSD, GAD, or Depression: A Review of Clinical Effectiveness and Guidelines [Internet]. CADTH Rapid Response Reports.
51. Ozekes S, Erquzi T, Sayar GH, et al. Analysis of Brain Functional Changes in High-Frequency Repetitive Transcranial Magnetic Stimulation in Treatment-Resistant Depression. *Clin EEG Neurosci*. 2014 Apr 14. [Epub ahead of print]
52. Plewnia C, Pasqualetti P, GroBe S, et al. Treatment of major depression with bilateral theta burst stimulation: a randomized controlled pilot trial. *J Affect Disord*. 2014 Mar;156:219-23. doi: 10.1016/j.jad.2013.12.025. Epub 2013 Dec 28.
53. Prasser J, Schecklmann M, Poepl TB, et al. Bilateral prefrontal rTMS and theta burst TMS as an add-on treatment for depression: a randomized placebo controlled trial. *World J Biol Psychiatry*. 2015 Jan;16(1):57-65. doi: 10.3109/15622975.2014.964768. Epub 2014 Nov 28.
54. Rapinesi C, Bersani FS, Kotzalidis GD, et al. Maintenance Deep Transcranial Magnetic Stimulation Sessions are Associated with Reduced Depressive Relapses in Patients with Unipolar or Bipolar Depression. *Front Neurol*. 2015 Feb 9;6:16. doi: 10.3389/fneur.2015.00016. eCollection 2015.
55. Rapinesi C, Curto M, Kotzalidis GD, et al. Antidepressant effectiveness of deep Transcranial Magnetic Stimulation (dTMS) in patients with Major Depressive Disorder (MDD) with or without Alcohol Use Disorders (AUDs): A 6-month, open label, follow-up study. *J Affect Disord*. 2015;174:57-63. doi: 10.1016/j.jad.2014.11.015. Epub 2014 Nov 20.
56. Ren J, Li H, Palaniyappan L, et al. Repetitive transcranial magnetic stimulation versus electroconvulsive therapy for major depression: a systematic review and meta-analysis. *Prog Neuropsychopharmacol Biol Psychiatry*. 2014 Jun 3;51:181-9. doi: 10.1016/j.pnpbp.2014.02.004. Epub 2014 Feb 18.
57. Rosenberg O, Dinur Klein L, Gersner R, Kotler M, Zangen A, Dannon P. Long-term Follow-up of MDD Patients Who Respond to Deep rTMS: A Brief Report. *Isr J Psychiatry Relat Sci*. 2015;52(1):17-23.
58. Rosser A, Warncken D, Mohan T, Bastiampillai T. The role of transcranial magnetic stimulation in treatment resistant depression. *Aust N Z J Psychiatry*. 2014 Dec 19.
59. Sarkar S, Grover S. A systematic review and meta-analysis of trials of treatment of depression from India. *Indian J Psychiatry*. 2014 Jan;56(1):29-38. doi: 10.4103/0019-5545.124711.

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<b>Reference #:</b> MC/M025	<b>Page:</b> 7 of 8

60. Schutter DJ, van den Hoven M. Ethical considerations regarding the use of transcranial magnetic stimulation in the treatment of depression. *Tijdschr Psychiatr.* 2015;57(1):42-6.

61. Shiozawa P, da Silva ME, Cordeiro Q. Transcranial Direct Current Stimulation for Treating Depression in a Patient With Right Hemispheric Dominance: A Case Study. *J ECT.* 2014 Sep 8. [Epub ahead of print]

62. Solvason HB, Husain M, Fitzgerald PG, et al. Improvement in quality of life with left prefrontal transcranial magnetic stimulation in patients with pharmacoresistant major depression: acute and six month outcomes. *Brain Stimul.* 2014 Mar-Apr;7(2):219-25. doi: 10.1016/j.brs.2013.10.008. Epub 2013 Nov 4.

63. Speer AM, Wassermann EM, Benson BE, Herscovitch P, Post RM. Antidepressant efficacy of high and low frequency rTMS at 110% of motor threshold versus sham stimulation over left prefrontal cortex. *Brain Stimul.* 2014 Jan-Feb;7(1):36-41. doi: 10.1016/j.brs.2013.07.004. Epub 2013 Jul 29.

64. Tortella G, Selingardi PM, Moreno ML, Veronezi BP, Brunoni AR. Does non-invasive brain stimulation improve cognition in major depressive disorder? A systematic review. *CNS Neurol Disord Drug Targets.* 2014;13(10):1759-69.

65. Vallejo-Torres L, Castilla I, Gonzalez N, Hunter R, Serrano-Perez P, Perestelo-Perez L. Cost-effectiveness of electroconvulsive therapy compared to repetitive transcranial magnetic stimulation for treatment-resistant severe depression: a decision model. *Psychol Med.* 15 May;45(7):1459-70. doi: 10.1017/S0033291714002554. Epub 2014 Oct 30.

66. Vanneste S, Ost J, Langguth B, De Ridder D. TMS by double-cone coil prefrontal stimulation for medication resistant chronic depression: a case report. *Neurocase.* 2014;20(1):61-8. doi: 10.1080/13554794.2012.732086. Epub 2012 Oct 11.

67. Wajdik C, Claypoole KH, Fawaz W, et al. No change in neuropsychological functioning after receiving repetitive transcranial magnetic stimulation treatment for major depression. *J ECT.* 2014 Dec;30(4):320-4. doi: 10.1097/YCT.0000000000000096.

68. Zhang YQ, Zhu D, Zhou XY, et al. Bilateral repetitive transcranial magnetic stimulation for treatment-resistant depression: a systematic review and meta-analysis of randomized controlled trials. *Braz J Med Biol Res.* 2015 Mar;48(3):198-206. doi: 10.1590/1414-431X20144270. Epub 2015 Jan 13.

69. Holzheimer PE. Unipolar depression in adults: indications, efficacy, and safety of transcranial magnetic stimulation (TMS). (Topic 14641, Version 26.0; last updated: 02/15/23) In: Solomon D, ed. *UpToDate.* Waltham, Mass.: UpToDate; 2018. www.uptodate.com. Accessed 12-26-23.

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<b>Reference #:</b> MC/M025	<b>Page:</b> 8 of 8

**Attachment A**

Examples of Standardized Depression Rating Scales

- Beck Depression Inventory (BDI)
- Geriatric Depression Scale (GDS)
- Hamilton Depression Rating Scale (HAMD)
- Inventory of Depressive Symptomatology-Systems Review (IDS-SR)
- Montgomery-Asberg Depression Rating Scale (MADRS)
- Personal Health Questionnaire Depression Scale (PHQ-9)
- Quick Inventory of Depressive Symptoms (QID)



# Nondiscrimination & Language Access Policy



Discrimination is Against the Law. Aspirus Health Plan, Inc. complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex, (including sex characteristics, including intersex traits; pregnancy or related conditions; sexual orientation, gender identity and sex stereotypes), consistent with the scope of sex discrimination described at 45 CFR § 92.101(a)(2). Aspirus Health Plan, Inc. does not exclude people or treat them less favorably because of race, color, national origin, age, disability, or sex.

Aspirus Health Plan, Inc.:

Provides people with disabilities reasonable modifications and free appropriate auxiliary aids and services 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 assistance services to people whose primary language is not English, which may include:

- Qualified interpreters.
- Information written in other languages.

If you need reasonable modifications, appropriate auxiliary aids and services, or language assistance services, contact the Nondiscrimination Grievance Coordinator at the address, phone number, fax number, or email address below.

If you believe that Aspirus Health Plan, Inc. has failed to provide these services or discriminated in another way on the basis of race, color, national origin, age, disability, or sex, you can file a *grievance* with:

Nondiscrimination Grievance Coordinator  
Aspirus Health Plan, Inc.  
PO Box 1890  
Southampton, PA 18966-9998  
Phone: 1-866-631-5404 (TTY: 711)  
Fax: 763-847-4010  
Email: customerservice@aspirushealthplan.com

You can file a *grievance* in person or by mail, fax, or email. If you need help filing a *grievance*, the Nondiscrimination Grievance 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 509F, HHH Building  
Washington, D.C. 20201  
1.800.368.1019, 800.537.7697 (TDD)

Complaint forms are available at <http://www.hhs.gov/ocr/office/file/index.html>. This notice is available at Aspirus Health Plan, Inc.'s website: [https://aspirushealthplan.com/webdocs/70021-AHP-NonDiscrim\\_Lang-Assist-Notice.pdf](https://aspirushealthplan.com/webdocs/70021-AHP-NonDiscrim_Lang-Assist-Notice.pdf).

## Language Assistance Services

**Albanian:** KUJDES: Nëse flitmi shqip, për ju ka në dispozicion shërbime të asistencës gjuhësore, pa pagesë. Telefononi në 1-800-332-6501 (TTY: 711).

**Arabic:** تنبيه: إذا كنت تتحدث اللغة العربية، فإن خدمات المساعدة اللغوية متاحة لك مجاناً. اتصل بن اعلى رقم الهاتف 1-800-332-6501 (رقم هاتف الصم والبك : 711)

**French:** ATTENTION: Si vous parlez français, des services d'aide linguistique vous sont proposés gratuitement. Appelez le 1-800-332-6501 (ATS: 711).

**German:** ACHTUNG: Wenn Sie Deutsch sprechen, stehen Ihnen kostenlos sprachliche Hilfsdienstleistungen zur Verfügung. Rufnummer: 1-800-332-6501 (TTY: 711).

**Hindi:** यान द : य द आप िहंदी बोलते ह तो आपके िलए मु त म भाषा सहायता सेवाएं उपल थ ह 1-800-332-6501 (TTY: 711) पर कॉल कर ।

**Hmong:** LUS CEEV: Yog tias koj hais lus Hmoob, cov kev pab txog lus, muaj kev pab dawb rau koj. Hu rau 1-800-332-6501 (TTY: 711).

**Korean:** 주의: 한국어를 사용하시는 경우, 언어 지원 서비스를 무료로 이용하실 수 있습니다. 1-800-332-6501 (TTY: 711) 번으로 전화해 주십시오.

**Polish:** UWAGA: Jeżeli mówisz po polsku, możesz skorzystać z bezpłatnej pomocy językowej. Zadzwoń pod numer 1-800-332-6501 (TTY: 711).

**Russian:** ВНИМАНИЕ: Если вы говорите на русском языке, то вам доступны бесплатные услуги перевода. Звоните 1-800-332-6501 (телетайп: 711).

**Spanish:** ATENCIÓN: si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 1-800-332-6501 (TTY: 711).

**Tagalog:** PAUNAWA: Kung nagsasalita ka ng Tagalog, maaari kang gumamit ng mga serbisyo ng tulong sa wika nangwalang bayad. Tumawag sa 1-800-332-6501 (TTY: 711).

**Traditional Chinese:** 注意：如果您使用繁體中文，您可以免費獲得語言援助服務。請致電 1-800-332-6501 (TTY: 711)

**Vietnamese:** CHÚ Ý: Nếu bạn nói Tiếng Việt, có các dịch vụ hỗ trợ ngôn ngữ miễn phí dành cho bạn. Gọi số 1-800-332-6501 (TTY: 711).

**Pennsylvania Dutch:** Wann du Deitsch (Pennsylvania German / Dutch) schwetzsch, kannscht du mitaus Koschte ebbergricke, ass dihr helft mit die englisch Schprooch. Ruf selli Nummer uff: Call 1-800-332-6501 (TTY: 711).

**Lao:** ໃບດອາບ: ຖ້າວ່າ ທ່ານເວົ້າພາສາ ລາວ, ການບໍລິການຊ່ວຍເຫຼືອດ້ານພາສາ ໂດຍບໍ່ເສັຽຄ່າ, ຈະມີມື້ອມໃຫ້ທ່ານ. ໂທສ 1-800-332-6501 (TTY: 711).