

Macular Degeneration - Referral Management

RMG: R-0031 (AC)

[Link to Codes](#)

- Clinical Indications for Referral
- References
- Footnotes
- Codes

Clinical Indications for Referral

- Referral for macular degeneration may be indicated for **1 or more** of the following(1)(2)(3)(4)(5)(6)(7):
 - Behavioral health referral for evaluation or management of **1 or more** of the following:
 - Depression associated with visual loss(8)
 - Visual hallucinations (eg, Charles Bonnet syndrome)[A]
 - Nutrition referral for dietary counseling for patient with intermediate or advanced age-related macular degeneration[B](9)
 - Ophthalmology referral for evaluation or management of **1 or more** of the following(14)(15):
 - Intravitreal injection of vascular endothelial growth factor inhibitor needed(16)(17)
 - Laser photocoagulation of choroidal neovascularization needed(18)
 - Low-vision aids or training needed to maximize remaining vision(19)
 - Macular degeneration, suspected, as indicated by **1 or more** of the following:
 - Acute central visual loss
 - Choroidal neovascularization
 - Persistent distorted or blurred vision
 - Screening of adult older than 55 years with risk factors, as indicated by **1 or more** of the following(20)(21):
 - Current or previous cigarette smoker[C]
 - Macular degeneration in one eye
 - Positive family history of macular degeneration
 - Photodynamic therapy needed (eg, verteporfin sensitizer and laser)(17)(22)
 - Visual hallucinations (eg, Charles Bonnet syndrome)[A](23)(24)

References

1. Flaxel CJ, et al. Age-Related Macular Degeneration. Preferred Practice Pattern [Internet] American Academy of Ophthalmology. 2019 Accessed at: <https://www.aao.org/>. [accessed 2022 Aug 25] [Context Link 1, 2, 3, 4]
2. Age-Related Macular Degeneration: Diagnosis and Management. NICE Guidance NG82 [Internet] National Institute for Health and Care Excellence. 2018 Jan Accessed at: <https://www.nice.org.uk/guidance/>. [accessed 2022 Oct 22] [Context Link 1, 2, 3] View abstract...
3. Mehta S. Age-related macular degeneration. Primary Care 2015;42(3):377-91. DOI: 10.1016/j.pop.2015.05.009. [Context Link 1, 2] View abstract...
4. Garcia-Layana A, Cabrera-Lopez F, Garcia-Arumi J, Arias-Barquet L, Ruiz-Moreno JM. Early and intermediate age-related macular degeneration: update and clinical review. Clinical Interventions in Aging 2017;12:1579-1587. DOI: 10.2147/CIA.S142685. [Context Link 1] View abstract...
5. Cunningham J. Recognizing age-related macular degeneration in primary care. Journal of the American Academy of Physician Assistants 2017;30(3):18-22. DOI: 10.1097/01.JAA.0000512227.85313.05. [Context Link 1] View abstract...
6. Mitchell P, Liew G, Gopinath B, Wong TY. Age-related macular degeneration. Lancet 2018;392(10153):1147-1159. DOI: 10.1016/S0140-6736(18)31550-2. [Context Link 1] View abstract...
7. Apte RS. Age-related macular degeneration. New England Journal of Medicine 2021;385(6):539-547. DOI: 10.1056/NEJMcp2102061. [Context Link 1] View abstract...
8. Senra H, Macedo AF, Nunes N, Balaskas K, Aslam T, Costa E. Psychological and psychosocial interventions for depression and anxiety in patients with age-related macular degeneration: a systematic review. American Journal of Geriatric Psychiatry 2019;27(8):755-773. DOI: 10.1016/j.jagp.2019.03.001. [Context Link 1] View abstract...
9. Lawrenson JG, Evans JR. Omega 3 fatty acids for preventing or slowing the progression of age-related macular degeneration. Cochrane Database of Systematic Reviews 2015, Issue 4. Art. No.: CD010015. DOI: 10.1002/14651858.CD010015.pub3. [Context Link 1, 2] View abstract...

10. Evans JR, Lawrenson JG. Antioxidant vitamin and mineral supplements for preventing age-related macular degeneration. *Cochrane Database of Systematic Reviews* 2017, Issue 7. Art. No.: CD000253. DOI: 10.1002/14651858.CD000253.pub4. [Context Link 1] View abstract...
11. Evans JR, Lawrenson JG. Antioxidant vitamin and mineral supplements for slowing the progression of age-related macular degeneration. *Cochrane Database of Systematic Reviews* 2017, Issue 7. Art. No.: CD000254. DOI: 10.1002/14651858.CD000254.pub4. [Context Link 1] View abstract...
12. Broadhead GK, Grigg JR, Chang AA, McCluskey P. Dietary modification and supplementation for the treatment of age-related macular degeneration. *Nutrition Reviews* 2015;73(7):448-62. DOI: 10.1093/nutrit/nuv005. [Context Link 1] View abstract...
13. Schmidl D, Garhofer G, Schmetterer L. Nutritional supplements in age-related macular degeneration. *Acta Ophthalmologica* 2015;93(2):105-21. DOI: 10.1111/aos.12650. [Context Link 1] View abstract...
14. Iroku-Malize T, Kirsch S. Eye conditions in older adults: age-related macular degeneration. *FP Essentials* 2016;445:24-8. [Context Link 1] View abstract...
15. Tuuminen R, et al. The Finnish national guideline for diagnosis, treatment and follow-up of patients with wet age-related macular degeneration. *Acta Ophthalmologica* 2017;95(A105 Suppl):1-9. DOI: 10.1111/aos.13501. [Context Link 1] View abstract...
16. Nguyen CL, Oh LJ, Wong E, Wei J, Chilov M. Anti-vascular endothelial growth factor for neovascular age-related macular degeneration: a meta-analysis of randomized controlled trials. *BMC Ophthalmology* 2018;18(1):130. DOI: 10.1186/s12886-018-0785-3. [Context Link 1] View abstract...
17. Supuran CT. Agents for the prevention and treatment of age-related macular degeneration and macular edema: a literature and patent review. *Expert Opinion on Therapeutic Patents* 2019;29(10):761-767. DOI: 10.1080/13543776.2019.1671353. [Context Link 1, 2] View abstract...
18. Querques G, et al. Laser photocoagulation as treatment of non-exudative age-related macular degeneration: state-of-the-art and future perspectives. *Graefes Archive for Clinical and Experimental Ophthalmology* 2018;256(1):1-9. DOI: 10.1007/s00417-017-3848-x. [Context Link 1] View abstract...
19. Marra KV, Wagley S, Kuperwaser MC, Campo R, Arroyo JG. Care of older adults: role of primary care physicians in the treatment of cataracts and macular degeneration. *Journal of the American Geriatrics Society* 2016;64(2):369-77. DOI: 10.1111/jgs.13927. [Context Link 1] View abstract...
20. Chakravarthy U, et al. Clinical risk factors for age-related macular degeneration: a systematic review and meta-analysis. *BMC Ophthalmology* 2010;10:31. DOI: 10.1186/1471-2415-10-31. [Context Link 1] View abstract...
21. Al-Zamil WM, Yassin SA. Recent developments in age-related macular degeneration: a review. *Clinical Interventions in Aging* 2017;12:1313-1330. DOI: 10.2147/CIA.S143508. [Context Link 1] View abstract...
22. Cruess AF, Zlateva G, Pleil AM, Wirostko B. Photodynamic therapy with verteporfin in age-related macular degeneration: a systematic review of efficacy, safety, treatment modifications and pharmaco-economic properties. *Acta Ophthalmologica* 2009;87(2):118-132. DOI: 10.1111/j.1755-3768.2008.01218.x. [Context Link 1] View abstract...
23. Niazi S, Krogh Nielsen M, Singh A, Sorensen TL, Subhi Y. Prevalence of Charles Bonnet syndrome in patients with age-related macular degeneration: systematic review and meta-analysis. *Acta Ophthalmologica* 2020;98(2):121-131. DOI: 10.1111/aos.14287. [Context Link 1] View abstract...
24. Esteves Leandro J, et al. Clinical characteristics of the Charles Bonnet syndrome in patients with neovascular age-related macular degeneration: the importance of early detection. *Ophthalmic Research* 2020;63(5):466-473. DOI: 10.1159/000506137. [Context Link 1] View abstract...

Footnotes

[A] Patients with macular degeneration may experience visual hallucinations that can last many years and are not a sign of mental illness.(1)(2) [A in Context Link 1, 2]

[B] Antioxidant multivitamins and mineral supplements may delay disease progression in patients with established intermediate or advanced age-related macular degeneration. Foods high in omega-3 fatty acids may reduce the risk of developing visual loss due to age-related macular degeneration. However, dietary supplements containing omega-3 fatty acids, beta carotene, vitamin C, and vitamin E do not appear to prevent or delay the onset of age-related macular degeneration in high-risk patients. Furthermore, beta-carotene supplements may increase the risk of lung cancer in patients who are smokers.(1)(9)(10)(11)(12)(13) [B in Context Link 1]

[C] Smoking increases the risk of developing macular degeneration.(1)(2)(3) [C in Context Link 1]

Codes

ICD-10 Diagnosis: H35.30, H35.3110, H35.3111, H35.3112, H35.3113, H35.3114, H35.3120, H35.3121, H35.3122, H35.3123, H35.3124, H35.3130, H35.3131, H35.3132, H35.3133, H35.3134, H35.3190, H35.3191, H35.3192, H35.3193, H35.3194, H35.3210, H35.3211, H35.3212, H35.3213, H35.3220, H35.3221, H35.3222, H35.3223, H35.3230, H35.3231, H35.3232, H35.3233, H35.3290, H35.3291, H35.3292, H35.3293, H35.33, H35.341, H35.342, H35.343, H35.349, H35.351, H35.352, H35.353, H35.359, H35.361, H35.362, H35.363, H35.369, H35.371, H35.372, H35.373, H35.379, H35.381, H35.382, H35.383, H35.389 [Hide]

Last Update: 9/21/2023 4:56:38 AM
Build Number: 27.2.2023092114759.013030