

Clinical Pearl

Assessing Screening Tools for Cognitive Impairment

by Marcia J. Walmer

Which brief screening tool is the best for the assessment cognitive impairment in the primary practice setting?

Clinicians want tools that are sensitive and specific, but also convenient and accessible.

The Alzheimer's Association recommends three brief screening measures for use at the Medicare annual wellness visit.

Compare these three tools to determine which is best for your practice needs. Web links are provided to access these tools for inclusion in your clinical practice toolkit.

Test / Parameters / Access Test	Setting	Administration Time / Parameters / Cut Off	Sensitivity / Specialty	Pros / Cons
Mini-Cog™	Primary, secondary care; Community cases of dementia screening	3 minutes Clock drawing plus three-word recall Cut off Probably normal/ possibly impaired	0.76 - 0.99 / 0.89 - 0.93	Pros: Quickest tool to administer; Sensitive to visuospatial and executive function; Simple to score and interpret Cons: Not as sensitive for mild cognitive impairment, early onset dementia; Requires the physical ability to write/draw.

<p><u>Memory Impairment Screen (MIS)</u></p>	<p>Primary care; Community</p>	<p>4 - 5 minutes</p> <p>Five-word test, episodic memory</p> <p>5/6 cutoff</p>	<p>0.86 / 0.91</p>	<p>Pros: Quick; Patient education does not impact result; MIS-T can be done over telephone</p> <p>Cons: Lacks a measure for executive function which makes it less desirable to assess for vascular or frontotemporal lobar degeneration; Visuospatial items means patient has to be able to read (impacted by literacy or visual impairment)</p>
<p><u>General Practitioner Assessment of Cognition (GPCOG)</u></p>	<p>Primary care; Detecting dementia in primary care setting</p>	<p>5 minutes</p> <p>Six patients / six informant questions</p> <p>10/11 cutoff</p>		<p>Pros: Copyrighted but clinical use is free; Quick; Easy to administer; Patient education does not impact outcome; Available in multiple languages</p> <p>Cons: Lack of research on non-English measures; Requires the physical ability to write/draw.</p>

References

- Alzheimer's Association. (2013). *Cognitive assessment toolkit*. Retrieved from http://www.alz.org/documents_custom/The%20Cognitive%20Assessment%20Toolkit%20Copy_v1.pdf
- Borson, S., Scanlan, J.M., Chen, P., & Ganguli, M. (2003). The Mini-Cog as a screen for dementia: Validation in a population-based sample. *JAGS*, 51(10), 1451-1454.
- Brody, H., Pond, D., Kemp, N.M., Luscombe, G., Harding, L., Berman, K., & Huppert, F.A. (2002). The GPCOG: A new screening test for dementia designed for general practice. *Journal of the American Geriatrics Society*, 50(3), 530-534. doi:10.1046/j.1532-5415.2002.50122.x

Bruschke, H., Kuslansky, G., Katz, M., Stewart, W.F., Sliwinski, M.J., Eckholdt, H.M., & Lipton, R.B. (1999). Screening for dementia with the memory impairment screen. *Neurology*, *52*(2), 231-238.

Cordell, C.B., Borson, S., Boustani, M., Chodosh, J., Reuben, D., Verghese, J., ... Fried, L.B. (2013). Alzheimer's association recommendations for operationalizing the detection of cognitive impairment during the Medicare annual wellness visit in a primary care setting. *Alzheimer's & Dementia*, *9*(2), 141-150.

Ismael, Z., Rajji, T., & Shulman, K. (2009). Brief cognitive screening instruments: An update. *International Journal of Geriatric Psychiatry*, *25*(2), 111-120.

Kuslansky, G., Buschke, H., Katz, M., Sliwinski, M., & Lipton, R. B. (2002). Screening for Alzheimer's disease: The Memory Impairment Screen versus the Conventional Three-Word Memory Test. *Journal of the American Geriatrics Society*, *50*(6), 1086-1091. doi:10.1046/j.1532-5415.2002.50265.x

Sheehan, B. (2012). Assessment scales in dementia. *Therapeutic Advances in Neurological Disorders*, *5*(6), 349-358. doi:10.1177/1756285612455733

Woodford, H.J., & George, J. (2007). Cognitive assessment in the elderly: A review of clinical methods. *QJM*, *100*(8), 469-484.

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