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The Use of Cognitive Assessments in **Proactive Claims Management**

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Cognitive assessment by an occupational therapist (OT) is sometimes used in individual disability income insurance (IDII) claims and managing return to work where the primary diagnosis is cancer and there are subjective reports of ongoing fatigue and mental impairment. Such assessment can help guide functional upgrade and measurable work capacity.

Cognitive impairment

People who have undergone chemotherapy frequently complain of mild cognitive impairments such as memory loss and an inability to focus which impact participation in valued occupations and roles.¹ This is most prevalent in the breast cancer population, with a 91% survival rate.² Similarly, we are seeing early trends in the COVID-19 pandemic where an acute disease can persist in the long term and affect brain and cognitive function.³

Cognition is defined as a process comprising eight domains: attention, concentration, information-processing speed, memory, language, executive function, visuospatial ability, and psychomotor ability. Cognitive function is the ability of the brain to acquire, process, store and retrieve information.^{4,5}

Cancer related cognitive impairment, also called "chemo brain", is recognised as a side-effect of cancer treatment that impacts 30% to 70% of breast cancer survivors. These cognitive changes impact activities of daily living (ADL), family and occupational roles.⁶ Greater than 69% are of working age.⁷ fMRI studies of 60-year-old identical twins measuring structural brain changes demonstrate that heightened activity occurs in more regions, indicating that the brain is working harder to complete tasks.⁸

Furthermore, the excess active areas are seen after chemotherapy, meaning that the brain is compensating to maintain adequate performance levels. The evidence suggest that the over-recruitment of brain regions is due to reduced neural integrity and connections after chemotherapy.⁹

Claims for cognitive impairment such as this are often referred to an OT to assess cognition and plan treatment rehabilitation needs of cancer survivors, so it is

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About This Newsletter

Risk Insights is a technical publication produced by Gen Re for life and health insurance executives worldwide. Articles focus on actuarial, underwriting, claims, medical and risk management issues. Products receiving emphasis include life, health, disability income, long term care and critical illness insurance.

essential that OTs can assess cognition to evaluate the outcomes of any interventions.¹⁰ With a plethora of screening tools and outcome measures how do we ensure that the outcome measures chosen by an OT are applicable and have strong validity and reliability to help us manage return to work outcomes?

Cognitive interventions used by OTs may involve implementing coping and compensation strategies to assist people to participate in work activities. To plan cognitive interventions, OTs often perform standardised assessments to determine which areas of executive functioning that are affected.¹¹ As executive functioning refers to a variety of processes, it is difficult or impossible to assess with a single measure, but it is crucial given the impact impairment can have on a person's ability to work.¹²

Cancer survivors often perform within the normal range of neuropsychological tests, so self-reporting questionnaires are recommended to be used in conjunction with standardised tests to determine the impact of perceived cognitive decline.¹³ This is further amplified when the cohort of IDII claims are often high value, high-income earning professionals who would have had pre-morbid high average (75th to 90th percentile) to very superior (98th percentile and above) intellectual functions.

Making an assessment

The assessment of cognitive dysfunction is complex and although there are several standardised tools, each has its own limitations. It is impractical to examine every component of cognition, therefore good history at clinical examination is

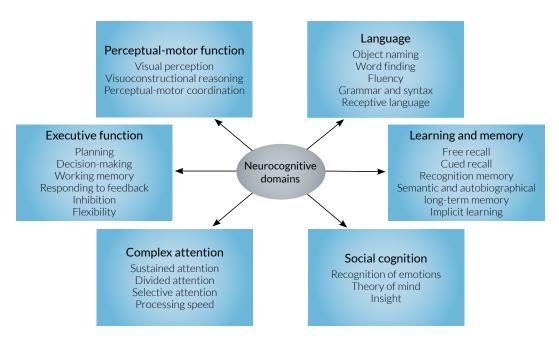
crucial to guide assessment. Claimants often state on claims forms or through functional telephone interviews that they are "forgetful" or have "brain fog" or "can't concentrate".

Many of the cognitive changes are explained in the context of fatigue. Claimants typically describe this malaise as having several components, including difficulty thinking clearly, emotional lability (exaggerated changes in mood), social withdrawal, decreased functional ability and decreased sleep quality.¹⁴

A neuropsychological assessment is routinely suggested as a claims strategy. Using an extensive battery of neuropsychological assessments can be impractical due to lack of available clinical psychologists to perform these, costs involved, and timeliness. Most importantly, neuropsychological assessments may not be ecologically valid due to not taking place in a functional environment, assessing only actual cognitive components. In some cases, these are contraindicated in populations who have a secondary mental health condition.

Many of the tests currently available include screening, subjective and objective assessment, and imaging approaches, but there are questions about whether these tools are sufficiently sensitive to detect subtle changes. The most widely used screening tools – Mini Mental State Examination (MMSE), Mini-COG and Montreal Cognitive Assessment (MOCA) – are not diagnostic, but positive results indicate that further follow-up is required.¹⁵

For simplicity, the key domains for which claims specialists should advise our cedants to obtain testing are the following:



Source: Sachdev, P., Blacker, D., Blazer, D. et al. Classifying neurocognitive disorders: the DSM-5 approach. Nat Rev Neurol 10, 634–642 (2014). https://doi.org/10.1038/nrneurol.2014.181, last access 14 Oct. 2022.

The emphasis should be standardised observation of work tasks (if the claimant is job-attached, in their natural environment or in a simulated setting) or within the home as these basic areas of cognition are essential to sustain activities of daily living.

Claims management

Although there are few functional cognitive assessments available for use, having an OT to detect problems in this cohort can counter some of the subjective nature of reporting by correlating the outcome measures with claimants' observed functional ability.

Put simply, cognitive assessment tools can help the claims specialist understand how impairments are affecting occupational performance. The testing should be completed at the initial phase of assessment, at reviews, and after intervention to compare and highlight any changes that denote recovery or decline.

Using the results from the chosen outcome measure, clinical observation of claimants within their work activities or workplace can detect anomalies and irregularities in test performances, which may not be a valid reflection of current level of cognitive capacity but indicative of deliberate poor performance, exaggeration, and non-credible memory complaints. There is no global consensus on the best assessment tool for cognitive impairment, but it is vital that claims specialists appoint OTs who are skilled in matching the valid tests to the needs of the claimant.

The cost benefit of using an OT in this regard is that most screening tools are translated in various languages, universally recognised and easier to conduct than a oneoff neuropsychological exam. The application of the scores towards a rehabilitation programme has more functional relevance and can be improved through remedial or restorative therapy.

The claimant's functional performance needs to be monitored during the rehabilitation period, with a graded return to work plan. The resultant restrictions need to be considered on job-specific duties. For instance, the ability to assimilate information and make connections is essential in a knowledge professional, but a physically demanding occupation such as a heavy machine operator requires safety awareness and judgement.

A baseline of the central duties of the claimant's occupation, either through a workplace assessment or job task analysis, is fundamental to any cognitive rehabilitation goal-setting. Any upgrades in task components of the claimant's core duties



are closely monitored to ensure barriers are addressed. This along with re-test can help claims specialists track that the OT's intervention is appropriate, accessible, practical and enhances the claimant's capacity for work.

OTs can support claimants in managing functional deficits through evidence-based management and treatment options such as lifestyle changes. Clinical research has shown that 150 minutes of moderate to vigorous physical activity per week can counteract psychological effects of cancer and its treatment.16

Physical movement through aerobic exercise, yoga, Pilates can provide a protective effect against cancer recurrence, stress, boost self-confidence and mitigate fatigue. To maximise safety and therapeutic effect, a multidisciplinary approach needs to be delivered by an accredited health professional. Depending on geography, healthcare providers involved in the evaluation and management of cognitive impairment stemming from chemotherapy can include neuropsychologists, oncologists, rehabilitation physicians, primary care providers, OTs, rehabilitation counsellors, exercise physiologists, physiotherapists and others.

Conclusions

The very nature of cognitive changes and functional impacts can be vaque and difficult to manage in claims. It is important to acknowledge that "brain fog" and cognitive deficits are a medical phenomenon in cancer patients. It is challenging to expect one assessment to differentiate between different types of cognitive impairment. To ensure best practice management, claims specialists should obtain a baseline function of the claimant's cognition using an OT to assess:

- Decision-making
- Language
- Learning (verbal and visual)
- Planning
- Problem-solving, reasoning
- Selective attention
- Sustained attention (i.e. concentration)
- Working memory (encoding storage retrieval)

The strategy of purposeful cognitive assessment, monitoring and evaluation allows a measurable approach to overcoming barriers, identifying patterns of functional performance, and returning to occupation that is sustainable in the long term.

Claims specialists can be one of many within a treatment team to endorse evidence-based practice through cognitive rehabilitation. Through engagement with the claimant, claims specialists can positively influence and encourage them to rebuild their lives through the Health Benefits of Good Work. This can result in cumulative return to work outcomes.

Most importantly, local medical practice needs to be considered and all discussions on the best approach should be strategised with the client before making any endorsement for cognitive assessments.

About the Author

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Endnotes

- 1 Hess, L. M., Hansen, D. G., Johansen, C., Vedsted, P., Larsen, P. V., Kragstrup, J. et al. (2012). Participation in cancer rehabilitation and unmet needs: A population-based cohort study. Supportive Care in Cancer, 20(11), 2913-2924. doi: 10.1007/s00520-012-1420-0, last accessed 14 Oct. 2022.
- 2 Mackenzie, L. (2020). Assessments to measure cancer related cognitive impairment in women with breast cancer: A critical review. [Conference presentation]. Occupational Therapy Australia 29th National Conference and Exhibition, Cairns, QLD, Australia.
- 3 Yang, A. C. Kern, F., Losada, P. M., Agam, M. R., Maat, C. A., Schmartz, G. P. et al. (2021). Dysregulation of brain and choroid plexus cell types in severe COVID-19. *Nature* 595, 565–571. https://doi.org/10.1038/s41586-021-03710-0, last accessed 14 Oct. 2022.
- 4 https://ascopost.com/issues/august-10-2018/tools-to-assesscancer-related-cognitive-dysfunction/, last access 14 Oct. 2022.
- 5 Harvey P. D. (2019). Domains of cognition and their assessment. *Dialogues in clinical neuroscience*, 21(3), 227–237. https://doi.org/10.31887/DCNS.2019.21.3/pharvey, last accessed 14 Oct. 2022.
- 6 Ibid endnote 2.
- 7 Ibid endnote 2.
- 8 Menning, S., de Ruiter, M. B., Veltman, D. J., Boogerd, W., Oldenburg, H. S. A., Reneman, L., & Schagen, S. B. (2017). Changes in brain activation in breast cancer patients depend on cognitive domain and treatment type. *PLoS ONE* 12(3): e0171724. https://doi.org/10.1371/journal.pone.0171724, last accessed 14 Oct. 2022.
- 9 Ibid.
- 10 Ibid endnote 2.
- 11 Newman, R., & Campbell, C. (2013). An occupational therapy perspective in addressing breast cancer-related cognitive dysfunction in the survivorship phase. *Physical Disabilities* 36(1), 1–3.
- 12 Taquet, M., Geddes, J. R., Husain, M., Luciano, S., & Harrison, P. J. (2021). 6 month neurological and psychiatric outcomes in 236 379 survivors of COVID-19: A retrospective cohort study using electronic health records. *The Lancet Psychiatry*, 8 (5), 416–427. https://doi.org/10.1016/S2215-0366(21)00084-5, last accessed 14 Oct. 2022.
- 13 Newman, R., & Campbell, C. (2013). An occupational therapy perspective in addressing breast cancer-related cognitive dysfunction in the survivorship phase. *Physical Disabilities* 36(1), 1–3.
- 14 https://ascopost.com/issues/august-10-2018/tools-to-assesscancer-related-cognitive-dysfunction/, last accessed 14 Oct. 2022.
- 15 Ibid.
- 16 Clinical Oncology Society of Australia (2017). COSA position statement on exercise in cancer care. https://www.cosa.org.au/ media/332488/cosa-position-statement-v4-web-final.pdf, last accessed 14 Oct. 2022.

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