



**Community Sector  
Consulting<sup>®</sup>**

**WHOS complex needs clients' data survey: assessment and treatment options**

**Assessment options: peer-reviewed and grey literature; policy, procedure and practice (PPP)**

<b>Publication details and/or PPP details</b>	<b>Précis of assessment/evaluation</b>	<b>Conclusions</b>	<b>Recommendations</b>
<b>1:</b> People With Exceptionally Complex Needs (PECN), 2010, Mental Health Commission, Govt of Western Australia	This report details a pilot study in which 6 clients assessed as having exceptionally complex needs (a combination of mental health and drug and alcohol issues) were treated with cross-agency collaboration using a single, agreed case-management plan.	Most importantly, stable housing facilitated clients' access to the services they require. Largely, the clients were using fewer resources as a result of the pilot. Other indicators included improved mental health, improved community participation, greater resilience and improved social relationships.	<ol style="list-style-type: none"> <li>1. That the PECN pilot should continue and expand.</li> <li>2. Governance and co-ordination should be enhanced.</li> <li>3. Senior agency representation is pivotal to success.</li> <li>4. An independent evaluation is required.</li> </ol>
<b>2:</b> Alcohol Related Brain Injury Australian Services	Acquired Brain Injury Checklist; Alcohol Related Brain Impairment (ARBI) Checklist		These checklists are only available as training packages.
<b>3:</b> Brain Injury Association of NSW, 2011, Acquired Brain Injury – The Facts	A practical guide to understanding and responding to acquired brain injury (ABI).	The guide provides assistance in the processes involved in brain injury, from treatment, to rehabilitation and return to work.	Recommendations are made regarding managing the treatment plan and rehabilitation process, as well as understanding how brain injury may affect the person's behavior. The recommendations largely assume a "normal" pre-morbid level of functioning.
<b>4:</b> Nasreddine, Z. et al., 2005 'The Montreal Cognitive Assessment, MoCA: A Brief Screening Tool For Mild Cognitive Impairment' Journal of the American Geriatrics Society 53:4	This study compares the MoCA with the Mini-Mental State Exam (MMSE) in an RCT with patients with mild cognitive impairment (MCI), Alzheimer's disease and a healthy control group.	Mild cognitive impairment (MCI) as an entity is evolving and somewhat controversial. The MoCA is a brief cognitive screening tool with high sensitivity and specificity for detecting MCI as currently conceptualized in patients performing in the normal range on the MMSE.	The MoCA is a simple, stand-alone cognitive screening tool with superior sensitivity. It covers important cognitive domains, can be administered in 10 minutes, and fits on one page. Moreover, the data indicate that it has excellent test-retest reliability and positive and negative predictive values for MCI and AD. It is sensitive to the presence of MCI and is feasible to use in a clinical setting, where assessment time is often limited. The MoCA promises to fill an urgent unmet need for a brief screening tool capable of detecting patients with MCI.

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<p><b>5:</b> Luis, C. et al., 2009 'Cross validation of the Montreal Cognitive Assessment in community dwelling older adults residing in the Southeastern US' International Journal of Geriatric Psychiatry 24: 197-201</p>	<p>Cross validation study of the MoCA for the detection of Alzheimer's disease (AD) and Mild Cognitive Impairment (MCI) in a community-based cohort residing in the Southeastern United States.</p>	<p>Using a slightly lower cut-off score, the MoCA yielded excellent sensitivity and specificity compared to the MMSE.</p>	<p>The MoCA appears to have utility as a cognitive screen for early detection of AD and for MCI and warrants further investigation regarding its applicability in primary care settings, varying ethnic groups, and younger at-risk individuals.</p>
<p><b>6:</b> Ismail, Z. et al., 2010 'Brief cognitive screening instruments: an update' International Journal of Geriatric Psychiatry 25: 111-120</p>	<p>Brief overview of emergent screening tests for cognitive impairment.</p>	<p>The MoCA has greater sensitivity to executive function than many other instruments, including the MMSE.</p>	<p>With its test-retest reliability, internal consistency, and content validity, the MoCA is an excellent screen for mild cognitive impairment.</p>
<p><b>7:</b> Lonie, J. et al., 2009 'Screening for mild cognitive impairment: a systematic review' International Journal of Geriatric Psychiatry 24: 902 -915</p>	<p>Systematic literature review of cognitive impairment screening instruments.</p>	<p>Similar sensitivities and specificities are reported for the MoCA and Addenbrooke's Cognitive Examination (Revised – ACE-R).</p>	<p>The MoCA may be useful in busy clinical settings due to its sensitivity and relatively reduced time to administer.</p>
<p><b>8:</b> Copersino, M. et al., 'Rapid Cognitive Screening of Patients with Substance Use Disorders' Experimental Clinical Psychopharmacology 17: 5</p>	<p>The present study assesses the validity, accuracy, and clinical utility of a brief (10 min) screening instrument, the Montreal Cognitive Assessment (MoCA), in identifying cognitive impairment among SUD patients.</p>	<p>These findings indicate that the MoCA provides a time-efficient and resource-conscious way to identify SUD patients with neuropsychological impairment, thus addressing a critical need in the addiction treatment research community.</p>	<p>This is the most convincing argument for the use of the MoCA in drug and alcohol services settings (see conclusion in adjacent box).</p>

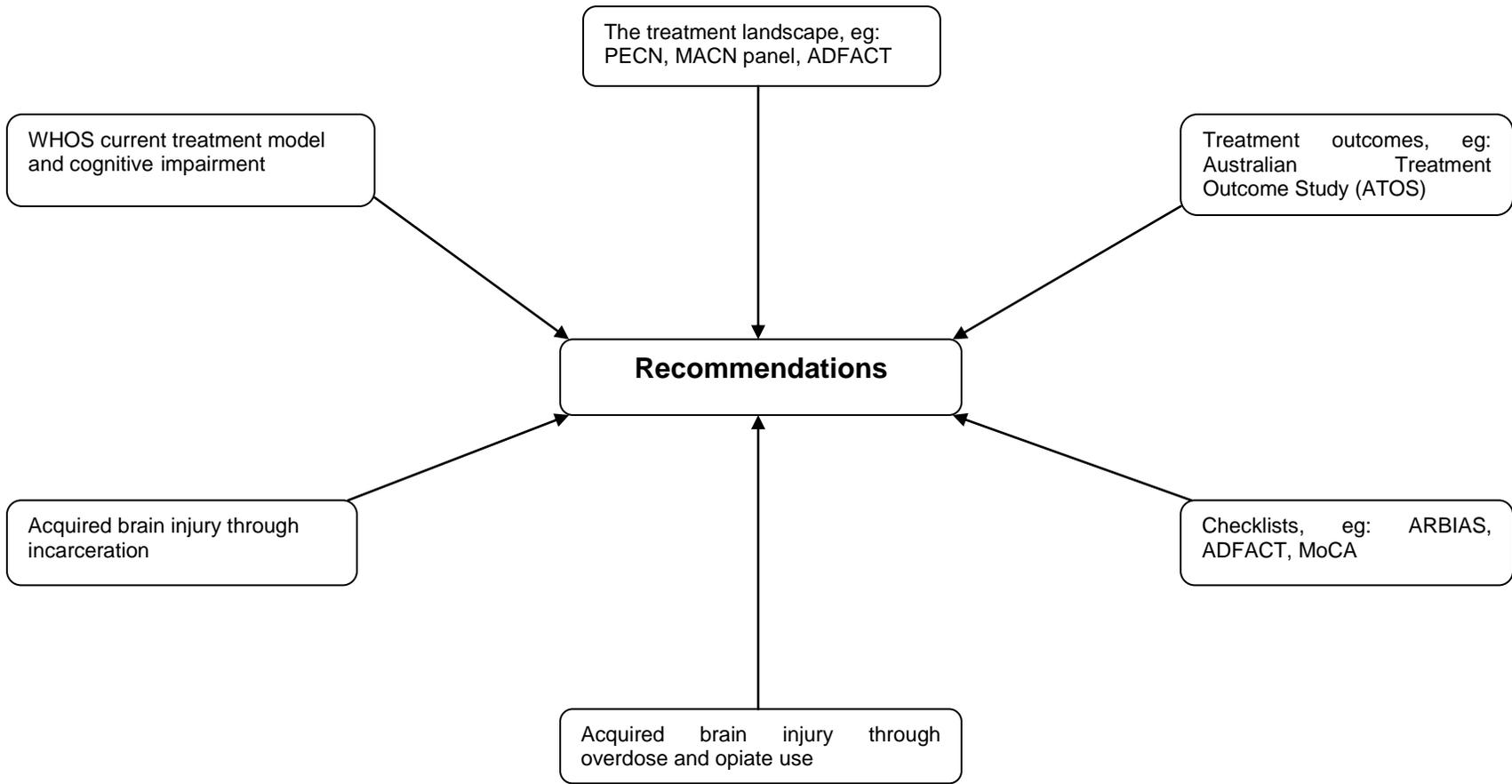
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<b>9:</b> Addenbrooke's Cognitive Examination revised (ACE-R)	Predates the MoCA but has many similar elements and is particularly suitable for assessing executive function.	Recommended by Jamie Berry as the best option for WHOS. (www.neurotreatment.com.au)	May be a suitable tool but takes approximately twice as long to administer as the MoCA.
<b>10:</b> Mioshi, E. et al., 2006 'The Addenbrooke's Cognitive Examination Revised (ACE-R): a brief cognitive test battery for dementia screening' International Journal of Geriatric Psychiatry 21: 1078-1085	There is a clear need for brief, but sensitive and specific, cognitive screening instruments as evidenced by the popularity of the Addenbrooke's Cognitive Examination (ACE). The study aimed to validate an improved revision (the ACE-R) which incorporates five sub-domain scores (orientation/attention, memory, verbal fluency, language and visuo-spatial).	The ACE-R seems to accomplish satisfactory standards in terms of reliability and validity based upon standard criteria for evaluating a dementia screening test.	Main limitation is that the ACE-R has not been validated in a community sample (see 11 below). Sensitivity and specificity are other wise good.
<b>11.</b> Cullen, B. et al., 'A review of screening tests for cognitive impairment' Journal of Neurology Neurosurgery and Psychiatry 78: 790-799	A systematic review of reliability of cognitive impairment screening tools.	The ACE-R has not yet been validated in community samples, but its focus on differential diagnosis profiles may be particularly useful for clinicians in secondary/tertiary practice, to guide further investigations.	Employing the ACE-R could be a good opportunity to validate the tool in a community setting.
<b>12.</b> Lerner, A.J. 2007 'Addenbrooke's Cognitive Examination-Revised (ACE-R) in day-to-day clinical practice' Age and Ageing 36:6	An audit of practice in clinical setting.	ACE-R is easy to use and patient acceptable. ACE-R has excellent sensitivity. Test specificity and positive predictive value may be improved by using lower cutoffs. ACE-R has excellent diagnostic accuracy (area under ROC curve).	This pragmatic study confirms the diagnostic accuracy of the ACE-R and demonstrates its utility in day to day clinical practice, but suggests that lower cutoffs than those indicated in the index paper may be necessary to optimise diagnostic gain.

**Treatment options: peer-reviewed and grey literature; policy, procedure and practice (PPP)**

Publication details and/or PPP details	Précis of treatment/evaluation	Conclusions	Recommendations
<p><b>1:</b> Multiple and Complex Needs Panel (MACN), 2003, Victorian Department of Human Services; Hamilton and Elford, 2009, <i>The Report on the Five Years of the Multiple and Complex Needs Panel</i> dhs.vic.gov.au</p>	<p>The MACN report provides the background for the Victorian approach to working with clients with cognitive impairment. The Hamilton and Elford (2009) paper reports on the five years of the MACN.</p>	<p>Largely, both papers situate cognitive impairment within the context of intellectual impairment. Case studies are provided in both reports which may be useful for adapting service to clients with cognitive impairment.</p>	<ol style="list-style-type: none"> <li>1. Secondary assessment by intensive case management agencies.</li> <li>2. Care plan co-ordination is vital to improved outcomes and improves with longer duration.</li> </ol>
<p><b>2:</b> Kelly, M. et al., 1997, 'Substance abuse, traumatic brain injury and neuropsychological outcome' Brain Injury 11: 6, 391-402</p>	<p>This study illustrated deficits in the WAIS-R and other measures of cognitive impairment in clients who have both acute and chronic drug and alcohol issues as they recover from a traumatic brain injury.</p>	<p>Pre-morbid drug and alcohol issues may, in and of themselves, impede recovery from a traumatic brain injury, and may be reliable indicators of acquired brain injury more generally.</p>	<p>Additional or qualitatively different rehabilitation strategies are required for people with drug and alcohol issues who are recovering from a traumatic brain injury. A complex interaction of substance use, brain injury and other organ systems damage may potentiate secondary and potentially treatable neurologic dysfunction.</p>
<p><b>3:</b> Alcohol and Drug Foundation ACT Inc. (ADFACT)</p>	<p>A bed has been allocated in the Karralika programme for clients assessed as having cognitive impairment. The assessment includes questions about past head trauma/episodes of Loss Of Consciousness.</p>	<p>Early indications are that more intensive case management yields improved outcomes. The current client has moved on into the therapeutic community.</p>	<p>Again, early stages, but assessment for cognitive impairment using past head trauma as an indicator may lead to improved case management.</p>

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<p><b>4:</b> Darke, S., Havard, A., Mills, K. L., Ross, J., Teesson, M. &amp; Williamson, A. (2009) 'The ageing heroin user : career length, clinical profile and outcomes across 36 months' Drug and Alcohol Review 28 (3)</p>	<p>This study aimed to examine length of career, clinical presentation and outcomes for heroin users across 36 months.</p>	<p>"The study dramatically showed the link between LOC and accumulated harm. The group who had been using for more than 15 years were particularly illustrative. Among these users 70% had a history of overdose, two thirds had been imprisoned, they had higher levels of lifetime polydrug use and injecting and, most importantly, were in significantly poorer health. In fact, one in seven of this group had severe physical disability, remarkable for a group whose mean age was under 40." p. 247</p>	<p>It is to be expected that the longer the duration of heroin using career, the worse the physical health outcomes. The association between length of career and physical and mental health needs to be considered when assessing treatment options.</p>
<p><b>5.</b> Vasterling, J. et al., 1998 'Attention and Memory Dysfunction in Posttraumatic Stress Disorder' Neuropsychology 12:1</p>	<p>This study examined the link between Posttraumatic Stress Disorder (PTSD) and cognitive impairments such as memory and attention deficits and disinhibition.</p>	<p>PTSD may be independently related to cognitive impairment in the absence of comorbid disorders. In addition, intrusive thoughts as part of PTSD may not necessarily be related to traumatic events, but may reflect a more general pattern of disinhibition.</p>	<p>PTSD needs to be viewed as an independent contributing factor to cognitive impairment and disinhibition.</p>
<p><b>6.</b> Granholm, E. et al., 2011 'Neuropsychological Functioning and Outcomes of Treatment for Co-occurring Depression and Substance Use Disorders ' The American Journal of Drug and Alcohol Abuse 37: 240-249</p>	<p>This study is a secondary analysis of an RCT comparing the efficacy of twelve step facilitation (TSF) and integrated cognitive behavioural therapy (ICBT) for adults with comorbid depression and drug and alcohol issues.</p>	<p>Individuals with poorer baseline neuropsychological functioning may be less able to develop and use novel coping skills for managing substance use and depressive symptoms on their own without formal structured training in cognitive and behavioural skills provided in ICBT.</p>	<p>The substance use outcomes may suggest that substance-dependent depressed adults with poorer neuropsychological functioning should be offered ICBT over TSF.</p>

### Strategy for integrating recommendations



**Recommendations:**

## 1. Assessment options:

Given the extensive literature on the sensitivity and specificity of the MoCA, a trial and evaluation of the MoCA in the WHOS setting is recommended. In addition, alongside this trial, a trial of the ACE-R is recommended. The ACE-R has not yet been fully validated in a community setting. The WHOS setting may be an ideal place to run such a trial and evaluation.

## 2. Treatment options:

Treatment specific for cognitive impairment may produce improved outcomes in treatment for drug and alcohol issues. Such treatment may include bolstering cognitive ability which in turn may lead to improved functional ability. Other areas for consideration may include treatment specific for post-traumatic stress disorder (PTSD) such as trauma-focused psychotherapy. PTSD may be considered in and of itself a contributing factor to cognitive impairment.

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