
2020 SH/CAMH GODSOE CHAIRS' LECTURE IN GERIATRICS

*The Art of the Virtual Consult with
Frail Older Patients and their
Families*

Monday, October 19th, 2020



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From the Couch to the Screen: Telepsychiatry for Frail, Homebound Older Adults

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University of Toronto



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Telepsychiatry



"No, the doctor doesn't do house calls. But he does do skype calls!"

Provision of psychiatric treatment via live, interactive videoconferencing

Shore 2013



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“Closed-circuit television has been introduced into the field of mental hygiene as a medium for the administration of therapy to a mass audience. The present evidence indicates that that the use of this type of television may promote the development of new and more effective methods for the treatment of the mentally ill.”

Tucker, H, Lewis, RB, Martin, GL. Television therapy: effectiveness of closed-circuit television as a medium for therapy in the mentally ill. *AMA Arch Neurol Psychiatry*. **1957**;77(1):57–69.



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Telepsychiatry / Telemental Health

- Employed since the 1950s
- Past decade
 - Extension of telepsychiatry services from institutional settings to private offices and homes
- Initial scientific literature
 - Feasible? Yes
 - Cost saving? Yes
- Now, exploration of strengths and weaknesses

Shore 2013



GTA

Off the couch, onto the screen: Is the shift to virtual mental health care here to stay?



By **Nadine Yousif** Local Journalism Initiative Reporter
Sun., Oct. 4, 2020 | 7 min. read



Goldbloom, D, Grazer D. Telepsychiatry 2.0. CJP Volume: 62 issue: 10, page(s): 688-689 October 2017

Homebound Seniors

“If leaving the home requires substantial effort or assistance and if this limitation is due to an illness or injury. The individuals who meet this definition leave home briefly and infrequently or leave only when in need of medical care.”

~ Medicare Definition

Qiu et al 2010



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Homebound Seniors

Unable to attend office visits

Increased utilization of ED

Increased hospitalization

Ontario Telemedicine Network

- One of the largest telemedicine networks in the world
- Two-way videoconferencing
- Secure
- Telehealth nurse goes to the patient's homes, physician calls in from office
- Patients can also link directly with physician, with no intermediary*

OTNresults.ca



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Practical Recommendations

- Back up number in case of technological failure
 - Know your patients address and key contact person prior to proceeding
 - Have a plan for managing safety issues
- SI
- HI
- Safety concerns secondary to cognitive impairment



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Resources



- Telemental Health Guide
 - www.tmhguide.org
- American Telemedicine Association's "Practice Guidelines for Videoconferencing-Based Telemental Health"
 - www.americantelemed.org
 - <https://www.cpsso.on.ca/Physicians/Policies-Guidance/Policies/Telemedicine/Advice-to-the-Profession-Telemedicine>
 - <https://www.cmpa-acpm.ca/en/covid19#section-virtual-care>

Roadtojustice.org



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The Virtual Geriatric Cognitive Assessment: Tools & Strategies

Angela Golas MD, FRCPC

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Assistant Professor, Department of Psychiatry,
University of Toronto



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Immediate Imperative: Risks of Age & Diagnosis

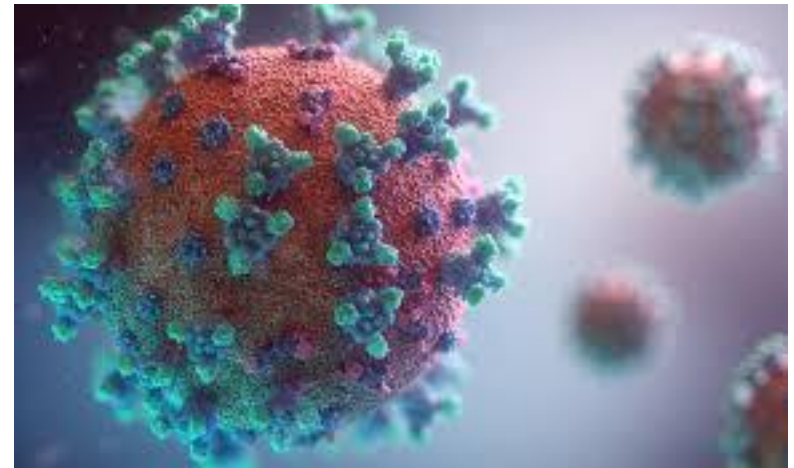
[Comments \(1\)](#)

PREEXISTING COMORBIDITIES PREDICTING SEVERE COVID-19 IN OLDER ADULTS IN THE UK BIOBANK COMMUNITY COHORT

Janice L Atkins, Jane AH Masoli, Joao Delgado,  Luke C Pilling, Chia-Ling C Kuo, George Kuchel, David Melzer

doi: <https://doi.org/10.1101/2020.05.06.20092700>

“...in adjusted models, COVID-19 patients were more likely than other participants to have **pre-existing dementia (OR=3.07 95% CI 1.71 to 5.50)**, COPD (OR= 1.82 CI 1.33 to 2.49), depression (OR=1.81 CI 1.36 to 2.40), type 2 diabetes (OR=1.70 CI 1.30 to 2.21), chronic kidney disease and atrial fibrillation.”



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Cognitive Assessment

Received: 12 February 2020 | Revised: 3 March 2020 | Accepted: 9 April 2020
DOI: 10.1002/alz.12105

Alzheimer's & Dementia[®]
THE JOURNAL OF THE ALZHEIMER'S ASSOCIATION

PERSPECTIVE

Recommendations of the 5th Canadian Consensus Conference on the diagnosis and treatment of dementia

Zahinoor Ismail¹ | Sandra E. Black² | Richard Camicioli³ | Howard Chertkow⁴ | Nathan Herrmann⁵ | Robert Laforce Jr.⁶ | Manuel Montero-Odasso^{7,8} | Kenneth Rockwood⁹ | Pedro Rosa-Neto¹⁰ | Dallas Seitz¹¹ | Saskia Sivananthan¹² | Eric E. Smith¹¹ | Jean-Paul Soucy¹³ | Isabelle Vedel¹⁴ | Serge Gauthier¹⁵ | the CCCD5 participants

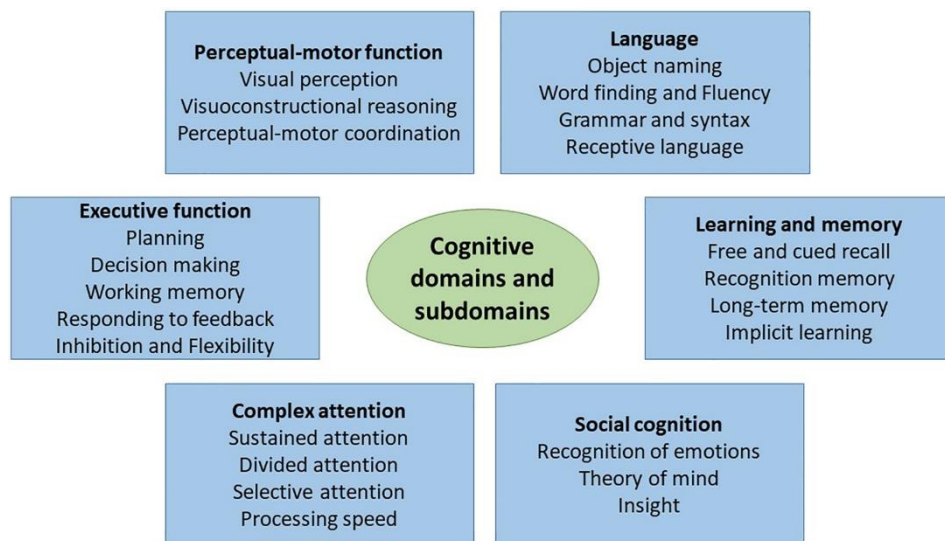
September 08, 2015; 85 (10) CONTEMPORARY ISSUES

Improving clinical cognitive testing

Report of the AAN Behavioral Neurology Section Workgroup

Kirk R. Daffner, Seth A. Gale, A.M. Barrett, Bradley F. Boeve, Anjan Chatterjee, H. Branch Coslett, Mark D'Esposito, Glen R. Finney, Darren R. Gitelman, John J. Hart, Alan J. Lerner, Kimford J. Meador, Alison C. Pietras, Kytja S. Voeller, Daniel I. Kaufer

First published July 10, 2015, DOI: <https://doi.org/10.1212/WNL.0000000000001763>



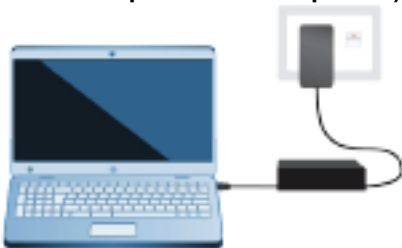
- Detailed clinical history – pt & informant
- Cognitive testing
- Affective history
- Functional status
- Behavioural history
- Medical history
- General neurological exam
- Investigations

Logistics

Reduce frustration from connectivity issues & optimize exam findings



Internet speed test
(384 Kbps down/uplink)



Screen size 100%

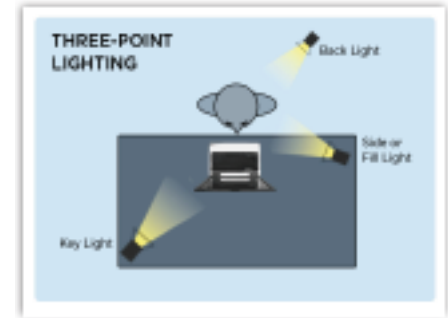
Lighting, colours, muting
- HIPPA-compliance

Clinician preparedness:

- Lighting, colours
- Time lags
- back-up tel #'s (pt, collateral, translator)
- Avoiding echo/feedback

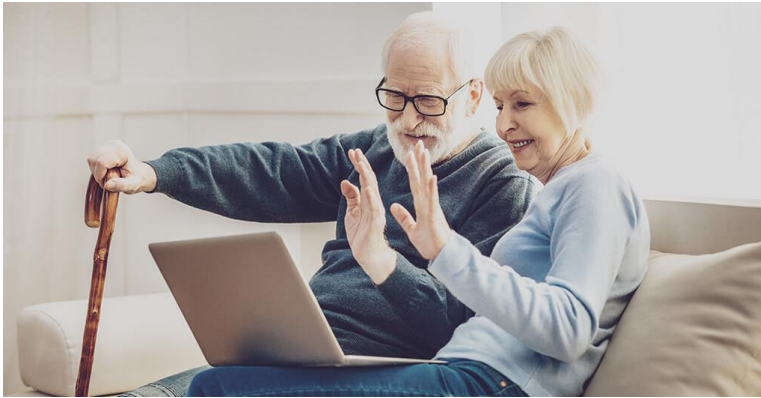
Pt preparedness:

- reminder calls, “dry-run” of video platform prior to appointment



 Ontario Health
OTN

Environmental Considerations



- ✓ Quiet, private testing environment
- ✓ Silence other devices
- ✓ No orientation prompts
- ✓ Minimize assistance from family members
- ✓ Screenshare copies of testing materials

Perceptual difficulties and slower internet speeds are correlated to lower test scores in videoconferenced environments

(Gentry, Lapid & Rummans *et al.* 2019;27(2):109-127)



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Patient Considerations

Ethical adoption of technology

- Limits of confidentiality
- Two-factor verification
- Safety concerns (“DISH”, elder abuse)
- Alternate modes of contact
- Ensure patient autonomy
- Assessment structure, number



Robillard JM *et al.* *Alzheimers Dement.* 2018;14(9):1104-1113.



- ✓ Age
- ✓ Education
- ✓ Visual acuity
- ✓ Hearing acuity
- ✓ Motor function
- ✓ Linguistic and cultural factors
- ✓ Strategies to foster alliance



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Telephone-based Cognitive Assessment

MONTREAL COGNITIVE ASSESSMENT / MoCA-BLIND
Version 7.1 Original Version

Name:
Education:
Sex:
Date of birth:
Date:

MEMORY	FACE	VELVET	CHURCH	DAISY	RED	POINTS	
Read list of words, subject must repeat them. Do 2 trials even if 1st trial is successful. Do a recall after 5 minutes.	1st trial					No points	
	2nd trial						
ATTENTION							
Read list of digits (1 digit/sec.) Subject has to repeat them in the forward order [] 2 1 8 5 4 Subject has to repeat them in the backward order [] 7 4 2						__ / 2	
Read list of letters. The subject must tap with his hand at each letter A. No point if ≥ 2 errors [] F B A C M N A A J K L B A F A K D E A A A J A M O F A A B						__ / 1	
Serial 7 subtraction starting at 100 [] 93 [] 86 [] 79 [] 72 [] 65 4 or 5 correct subtractions: 3 pts, 2 or 3 correct: 2 pts, 1 correct: 1 pt, 0 correct: 0 pt						__ / 3	
LANGUAGE							
Repeat: I only know that John is the one to help today. [] The cat always hid under the couch when dogs were in the room. []						__ / 2	
Fluency / Name maximum number of words in one minute that begin with the letter F. [] _____ (N ≥ 11 words)						__ / 1	
ABSTRACTION							
[] train - bicycle Similarity between e.g. banana - orange = fruit [] watch - ruler						__ / 2	
DELAYED RECALL	Has to recall words	FACE	VELVET	CHURCH	DAISY	RED	Points for UNCUED recall only
Optional	With no cue	[]	[]	[]	[]	[]	
	Category cue						
	Multiple choice cue						
ORIENTATION	[] Date	[] Month	[] Year	[] Day	[] Place	[] City	__ / 6
© Z. Nasreddine MD www.mocatest.org Normal $\geq 18 / 22$						TOTAL	__ / 22
Administered by: _____						Add 1 point if ≤ 12 yr edu	

Trail Making Test Part A

Patient's Name: _____ Date: _____

Trail Making Test Part B

Patient's Name: _____ Date: _____

Salib E, McCarthy J. *Int J Geriatr Psych* 2002;17(12):1157-1161.

Animal names (semantic fluency, executive function, processing speed)

- Adv: Minimal language, culture, education bias

Cutoff <19, for MCI sensitivity = 63%, specificity 98%

Telephone-based Cognitive Assessment



TELEPHONE INTERVIEW FOR COGNITIVE STATUS

ID NUMBER:

FORM CODE: T I C

DATE: 5/2/2011
Version 1.0

ADMINISTRATIVE INFORMATION

0a. Completion Date: / /
Month Day Year

0b. Staff ID:

Scoring: One point for each correct answer.

		1 = Correct 0 = Incorrect
1. "Please tell me your full name"		
First name	_____	_____
Last name	_____	_____
2. "What is the year we are in?"	_____	_____
3. "What season is it?"	_____	_____
4. "What month are we in?"	_____	_____
5. "What is today's date?"	_____	_____
6. "What day of the week is today?"	_____	_____
7. "What is your home address?"		
House number	_____	_____
Street Name	_____	_____
City	_____	_____
State	_____	_____
Zip	_____	_____
	(Total correct = 0-12)	_____

8. "Count backwards from 20 to 1."

Trial #1: (Circle each correct response): 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

(If participant correctly counted backwards on trial #1 Score = 2 points. If participant did not correctly count backwards on trial #1, administer trial #2).

Trial #2: (Administer only if ppt did not correctly complete trial #1): "Now, let's try that again. I would like for you to count backwards from 20 to 1." 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

(If participant correctly counted backwards on trial #2 Score = 1 point). If participant did not correctly complete task in two trials (Score = 0 points)

(Score = 0, 1 or 2) _____

Orientation: time & place
Attention
Short-term memory
Sentence repetition
Immediate recall
Naming to verbal description
Word opposites
Praxis

Score: 0-41, cut-off: 28
(~ cut-off of 25 on MMSE)
Sensitivity: 94%
Specificity: 100% AD vs. Nml



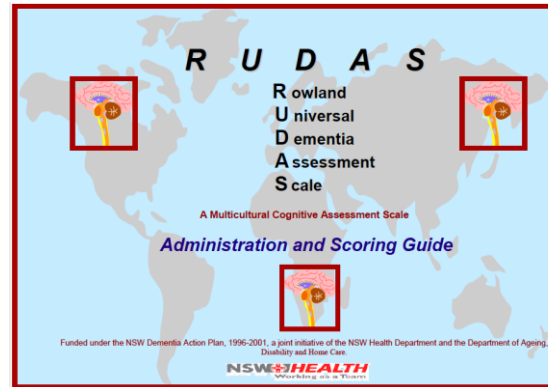
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Video-based Cognitive Assessment

R U D A S	
The Rowland Universal Dementia Assessment Scale: A Multicultural Cognitive Assessment Scale. (Storey, Rowland, Basic, Conforti & Dickson, 2004). <i>International Psychogeriatrics</i> , 16 (1), 13-31	
Date: ___/___/___ Patient Name: _____	
Item	Max Score
Memory 1. (Instructions) I want you to imagine that we are going shopping. Here is a list of grocery items. I would like you to remember the following items which we need to get from the shop. When we get to the shop in about 5 mins. time I will ask you what it is that we have to buy. You must remember the list for me. Tea, Cooking Oil, Eggs, Soap Please repeat this list for me (ask person to repeat the list 3 times). (If person did not repeat all four words, repeat the list until the person has learned them and can repeat them, or, up to a maximum of five times.)	
Visuospatial Orientation 2. I am going to ask you to identify/show me different parts of the body. (Correct = 1). Once the person correctly answers 5 parts of this question, do not continue as the maximum score is 5.	
(1) show me your right foot (2) show me your left hand (3) with your right hand touch your left shoulder (4) with your left hand touch your right ear (5) which is (indicate/point to) my left knee (6) which is (indicate/point to) my right elbow (7) with your right hand indicate/point to my left eye (8) with your left hand indicate/point to my left foot11111111
Praxis 3. I am going to show you an action/exercise with my hands. I want you to watch me and copy what I do. Copy me when I do this ... (One hand in fist, the other palm down on table - alternate simultaneously.) Now do it with me: Now I would like you to keep doing this action at this pace until I tell you to stop - approximately 10 seconds. (Demonstrate at moderate walking pace). Score as: Normal = 2 (very few if any errors; self-corrected, progressively better; good maintenance; only very slight lack of synchrony between hands) Partially Adequate = 1 (noticeable errors with some attempt to self-correct; some attempt at maintenance; poor synchrony) Failed = 0 (cannot do the task; no maintenance; no attempt whatsoever)5
Visuoconstructional Drawing 4. Please draw this picture exactly as it looks to you (Show cube on back of page). (Yes = 1) Score as: (1) Has person drawn a picture based on a square? (2) Do all internal lines appear in person's drawing? (3) Do all external lines appear in person's drawing?111
Judgment 5. You are standing on the side of a busy street. There is no pedestrian crossing and no traffic lights. Tell me what you would do to get across to the other side of the road safely. (If person gives incomplete response that does not address both parts of answer, use prompt: "Is there anything else you would do?") Record exactly what patient says and circle all parts of response which were prompted. Score as: Did person indicate that they would look for traffic? (YES = 2; YES PROMPTED = 1; NO = 0) Did person make any additional safety proposals? (YES = 2; YES PROMPTED = 1; NO = 0)3224



Cut-off: 23/30

Interpret scores <22 with caution in test takers with a physical disability

- Memory
- Visuospatial orientation
- Praxis
- Visuoconstructional drawing (cube copy)
- Judgment
- Language (animal fluency)



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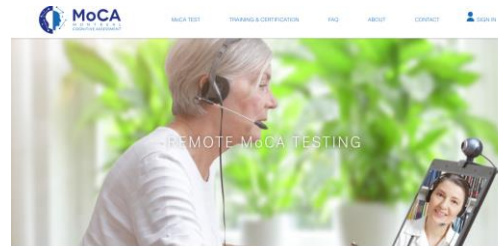
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Video-based Cognitive Assessment

MONTREAL COGNITIVE ASSESSMENT (MOCA)
Version 7.1 Original Version

NAME: _____ Date of birth: _____
Education: _____ Sex: _____ Education: _____ Date: _____

VISUOSPATIAL / EXECUTIVE		Copy cube	Draw CLOCK (Ten past eleven) (3 points)	POINTS			
		<input type="checkbox"/>	<input type="checkbox"/>	___/5			
<input type="checkbox"/> Contour <input type="checkbox"/> Numbers <input type="checkbox"/> Hands							
NAMING							
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___/3		
MEMORY							
Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. Do a recall after 5 minutes.		FACE	VELVET	CHURCH	DAISY	RED	No points
1st trial		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2nd trial		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ATTENTION							
Read list of digits (1 digit/ sec.). Subject has to repeat them in the forward order		[] 2 1 8 5 4		___/2			
Subject has to repeat them in the backward order		[] 7 4 2					
Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors		[] FBACMNAAJKLBAFAKDEAAAJAMOF AAB			___/1		
Serial 7 subtraction starting at 100		[] 93	[] 86	[] 79	[] 72	[] 65	___/3
		4 or 5 correct subtractions: 3 pts. , 2 or 3 correct: 2 pts. , 1 correct: 1 pt. , 0 correct: 0 pt.					
LANGUAGE							
Repeat: I only know that John is the one to help today. []		The cat always hid under the couch when dogs were in the room. []			___/2		
Fluency / Name maximum number of words in one minute that begin with the letter F		[] _____ (N ≥ 11 words)			___/1		
ABSTRACTION							
Similarity between e.g. banana - orange = fruit		[] train - bicycle	[] watch - ruler	___/2			
DELAYED RECALL							
Has to recall words WITH NO CUE		FACE	VELVET	CHURCH	DAISY	RED	Points for UNCUED recall only
Category cue		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Multiple choice cue		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ORIENTATION							
[] Date		[] Month	[] Year	[] Day	[] Place	[] City	___/6
© Z. Nasreddine MD		www.mocatest.org		Normal ≥ 26 / 30		TOTAL ___/30	
Administered by: _____						Add 1 point if ≤ 12 yr edu	



Remote MoCA Testing

WHAT is the BNA-SF...

The Behavioural Neurology Assessment – Short Form (BNA-SF) is a shorter form of the TorCA and is a 20-30 minute cognitive assessment tool. It is typically used in patients with mild to moderate stage dementia, and is also collected as a part of the Dementia Clinical Research Database when the TorCA is not appropriate. This BNA-SF examines the domains depicted below.

[Register here to download the BNA-SF.](#)



Attention



Memory



Language



Visuospatial Function



Executive Function



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Use of Interpreters

- Professional interpreters
- Explain facilitator role to test taker
- Ensure correct dialect
- Familiarize interpreter with assessment
- Importance of concurrent and precise interpreting

- Debrief: clarify potential areas of cultural bias



Take-home Messages

Prioritize **clinical interview data** over videoconferenced assessment data

Research: Need more evidence-based guidance on utility, validity, efficacy, tolerability, safety of virtual cognitive assessments

Ethics: potential harm to patient in interpreting results from remote assessments



Geddes et al. <https://alz-journals.onlinelibrary.wiley.com/doi/epdf/10.1002/dad2.12111>



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Resources

American Psychological Association. Office and technology checklist for telepsychological services. <https://www.apa.org/practice/programs/dmhi/research-information/telepsychological-services-checklist>.

Daffner, *et al.* Improving clinical cognitive testing: Report of the AAN Behavioral Neurology Section Workgroup *Neurology*: 2015; 85(10) DOI: <https://doi.org/10.1212/WNL.0000000000001763>

Clark, St. John. Virtual approaches to cognitive screening during pandemics. *CGS Journal of CME* 2020:10(1). www.geriaticsjournal.ca

Geddes *et al.* Remote cognitive and behavioral assessment: report of the Alzheimer Society of Canada Task Force on dementia care best practices for COVID-19. (<https://alz-journals.onlinelibrary.wiley.com/doi/epdf/10.1002/dad2.12111>)

The Art of the Virtual Consult with Frail Older Patients and their Families: A Geriatrician's Take

Barry Goldlist MD, FRCPC

Staff Geriatrician, Sinai Health and University
Health Network

Professor, Department of Medicine, University of
Toronto



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LOOKING FOR MORE LEARNING OPPORTUNITIES?

REGISTER NOW FOR THE:

Toronto Geriatrics Virtual Update Course

Providing Excellent Geriatric Care During the COVID-19 Pandemic

Date: Friday October 30th, 2020 (8:30 AM – 3:00 PM)

Topics include: Expert Management of COVID-19 in Older Adults, How to Manage BPSD During a Pandemic, among more!

Please visit our website to view our full program agenda and to register for the day. Spots are limited!

<https://sinaigeriatrics.ca/event/2020-geriatrics-update-3-3/>