

Spaulding Rehabilitation Hospital

# The BTACT: Is it useful in a clinical setting?

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## Objectives

- Briefly review the BTACT
- Discuss its purpose as an outcomes metric for TBIMS
- Review how it is administered to patients at Spaulding Rehab Hospital
- Weigh the advantages and disadvantages of using it in a clinical setting vs only by TBIMS research departments
- Time for discussion/comments

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## What is the BTACT?

- BTACT: The Brief Test of Adult Cognition by Telephone
- Developed as a brief but reliable test that covers important areas of adult cognition
  - Episodic Verbal Memory
  - Working Memory Span & Executive Function
  - Reasoning
  - Speed of Processing
- Easily administered over the phone to adults
- Broad range of ages and educational backgrounds

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### What is the BTACT?

- Multi-dimensional test of cognition designed for use in the National Survey of Midlife Development in the United States (MIDUS)
- The BTACT was designed to tap areas of cognitive function that are sensitive to the effects of aging
- Within the MIDUS study, there is a large body of data on healthy adults

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### Telephone-Based Screening Tools for Cognition: Advantages

- Appropriate for use in large-scale epidemiological and longitudinal studies
- Generally good sensitivity/specificity for cognitive impairment
- Phone-based data as valid and reliable as in-person assessment
- Can access highly-diverse respondent pool
- Low burden for respondent (E.g. brief, no travel)
- Low cost/effort for investigator

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### Telephone-Based Screening Tools for Cognition: Limitations

- Impact of age, education, cultural background on phone-based performance
- Effects of hearing impairment and background noise
- Possibility of cheating (e.g. writing down memory items)
- Assess only some cognitive functions

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### Why are TBIMS sites using the BTACT?

- It is feasible to administer the BTACT to individuals with clinically significant TBI both over the phone and in an inpatient rehab facility
- Majority of participants could complete the BTACT at 1 and 2 years post-injury
- Provides more granular information about cognitive functioning than the FIM
- BTACT can detect changes over time during a period after the most rapid spontaneous recovery may have passed
- Since 2018, the BTACT has been a mandated metric to administer as part of the TBIMS National Database.

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### How is the BTACT typically administered?

- At most TBIMS sites, consented patients are given the BTACT by members of the research team.

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### How is the BTACT administered at SRH?

- At SRH, we have decided to trial BTACT administration in the clinical setting by having SLP's as the primary surveyors

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### How the BTACT is administered at SRH

- Inpatient TBI patients are enrolled in the TBIMS by research team
- Research team identifies those patients who are eligible to complete the BTACT during their inpatient stay, and consents the patients
- SLP's are alerted via email when a patient is eligible and consented
- SLP then administers the BTACT within the slated window of opportunity outlined in the email
- Research team then inputs data into the National Database

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### Why the SLP?

- We don't have research staff who wear clinical hat
- This is a way to integrate research mandates into clinical practice
- SLP's are already evaluating cognitive-linguistic domains

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### BTACT by SLP: Advantages

- SLP's are already evaluating cognitive-linguistic domains via admission and discharge assessment, as well as via weekly progress monitoring metrics
- Brief review/training prior to administering
- The BTACT takes 15-20 minutes to administer
- Allows for stronger relationship between research and clinical team
- Clinicians are able to speak more to the TBIMS and feel more connected to the ongoing research
- Clinicians know which patients are enrolled
- Motivating to clinical staff to gather objective data
- Frees up research staff to do more follow-up surveys

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### BTACT by SLP: Limitations

- This test is designed to be a screening examination
- Not currently using norms to determine severity ratings, thus interpretation of patient performance on BTACT is subjective
- SLP currently not re-administering BTACT for progress monitoring (i.e. nothing to compare performance to)
- We are currently administering other weekly metrics during SLP treatment sessions with many of our patients

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### Thoughts/Opinions?

- Are any other sites administering the BTACT in the clinical setting, or are research departments managing this?
- Any other advantages/limitations to SLP administering the BTACT to add to the list?
- Do you think this is a good idea for clinical staff to administer the BTACT?
- Any suggestions for how to engage integrate research mandates into clinical practice?

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