# Development of an electronic CAPS-5 scale for clinical trials

Rujvi Kamat, PhD, ABPP-CN; Simona Iraheta, MA; Marcela Roy, MA; Petra Reksoprodjo, MUDr; Dan DeBonis, BA

Signant Health

#### BACKGROUND

- Posttraumatic stress disorder (PTSD) has a global prevalence rate of nearly 4% (Koenen et al., 2017)
- The Clinician-Administered PTSD Scale (CAPS-5), a structured diagnostic interview, is commonly used to assess PTSD

Our CAPS-5 digital version displays the following features:

Easily accessible scale instructions and administration prompts

RESULTS

	B1): Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s). Note: In children olde rears, repetitive play may occur in which themes or aspects of the traumatic event(s) are expressed.	
In the past month, have you had any <u>unwanted memories</u> of (EVENT) while you were awake, so not counting	° No	
dreams?	⊙Yes	
(Rate 0=Absent if only during dreams)		
If you select No. further questions will not be asked. The		

- As the focus on developing pharmaceutical interventions for PTSD increases, there is a corresponding need to develop technological tools to facilitate standardized CAPS-5 assessment in clinical trials
- Our objective was to develop a "smart scale" based on the original paper version to enable reliable administration and scoring by global raters with diverse clinical backgrounds

# METHODS

 We utilized the public domain version of the CAPS-5 provided by the National Center for PTSD, consulted PTSD subject matter experts, identified known

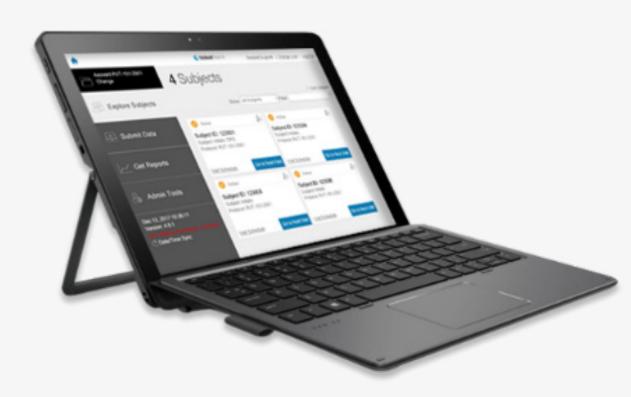
symptom will be considered Absent and no Severity score will be assigned for this symptom.	
How does it happen that you start remembering (EVENT)?	Free text
[If not clear:] ( <i>Are these <u>unwanted</u> memories, or are you thinking about (EVENT) on purpose?</i> )	
(Rate 0=Absent unless perceived as involuntary and intrusive)	

• Built-in logic to help guide scale administration and scoring

Choose the Overall Severity Rating for this item:	<ul> <li>Absent</li> </ul>
Key rating dimensions = frequency / intensity of distress	<ul> <li>Mild / subthreshold</li> </ul>
oderate = at least 2 X month / distress clearly present, ome difficulty dismissing memories	<ul> <li>Moderate / threshold</li> </ul>
	<ul> <li>Severe / markedly elevated</li> </ul>
	<ul> <li>Extreme / incapacitating</li> </ul>
Severe = at least 2 X week / pronounced distress, considerable difficulty dismissing memories	
There is a possible discrepancy between the information provided for the item above and the overall severity score.	
Please check the responses and notes above for this item and review the rating on the item for consistency. (For discrepancy between intensity/frequency score and the overall severity score, please refer to the Scoring Grid Guidance Table).	
<i>If you wish to keep your score, please provide a brief rationale for the overall severity rating</i>	

 Integrated audio recording of CAPS-5 assessment to allow review for quality assurance

challenges in administration and scoring of the CAPS-5 scale, and developed a digital CAPS-5 version with smart built-in algorithms





 Automated scoring to generate domain scores and total score, and to help determine whether patient meets PTSD diagnostic criteria

## CONCLUSIONS

- Our electronic CAPS-5 scale strictly adheres to the paper version but leverages technology to provide built-in logic and scoring guidance for raters
- It ensures standardization in administration and scoring of the measure globally

• It is suitable for raters with diverse experience, a critical component of clinical trials

• Future directions include examining in-study performance of raters who utilize the CAPS-5 electronic scale

## REFERENCES

Koenen, K. C., Ratanatharathorn, A., Ng, L., McLaughlin, K. A., Bromet, E. J., Stein, D. J., & Karam, E. G. (2017). *Posttraumatic stress disorder in the world mental health surveys*. Psychological Medicine , 47 (13), 2260-2274.

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