

# NFL

# CONCUSSION SETTLEMENT

IN RE: NATIONAL FOOTBALL LEAGUE PLAYERS' CONCUSSION INJURY LITIGATION  
No. 2:12-md-02323 (E.D. Pa.)

## PRE-EFFECTIVE DATE DIAGNOSING PHYSICIAN CERTIFICATION FORM (for diagnoses made by physicians who are qualified to render Qualifying Diagnoses for purposes of Monetary Award claims before January 7, 2017)

This Pre-Effective Date Diagnosing Physician Certification Form is to be used only by physicians qualified to render Qualifying Diagnoses before January 7, 2017, in connection with the Class Action Settlement in In re: National Football League Players' Concussion Injury Litigation and who made a Qualifying Diagnosis before January 7, 2017. The Qualifying Diagnoses are found in Appendix A to this Pre-Effective Date Diagnosing Physician Certification Form.

Use this form to certify a Qualifying Diagnosis you made before January 7, 2017, based on your personal examination of the Retired NFL Football Player. **Do not sign this form unless you personally examined the player** or, in the case of a Qualifying Diagnosis of Death with CTE, you are the board-certified neuropathologist who made the post-mortem diagnosis of CTE. If you made a Qualifying Diagnosis as a Qualified MAF Physician on or after January 7, 2017, do not use this form; use the MAF Diagnosing Physician Certification Form instead. Also, if you are a Qualified BAP Provider certifying a diagnosis you made in the Baseline Assessment Program, do not use this form; use the BAP Diagnosing Physician Certification Form instead.

You must complete this form in its entirety, sign it under penalty of perjury, and return it to the patient along with copies of all supporting medical records that you created or received in connection with the Qualifying Diagnosis. In turn, the patient, or the patient's counsel, must submit this form and all supporting medical records referred to above to the Claims Administrator as part of a claim for compensation under the Class Action Settlement. The Claims Administrator will review the form, including your qualifications to provide the Qualifying Diagnosis, and the supporting medical records. All claims also are subject to audit. Any finding of fraudulent conduct by you will be subject to, without limitation, your referral to appropriate regulatory and disciplinary boards and agencies and/or federal authorities, and your disqualification from serving in any aspect of the Class Action Settlement.

You are required to preserve all supporting medical records that you created or received in connection with the Qualifying Diagnosis for the greater of: (a) 10 years after January 7, 2017; or (b) the period of time required under applicable state and federal laws.

If you have any questions, call the Claims Administrator toll free at 1-855-887-3485 or visit the Settlement Website at <https://www.nflconcussionsettlement.com>.

**PRE-EFFECTIVE DATE DIAGNOSING PHYSICIAN CERTIFICATION FORM**  
**(for diagnoses made by physicians who are qualified to render Qualifying Diagnoses**  
**for purposes of Monetary Award claims before January 7, 2017)**

**I. PATIENT INFORMATION**

<b>Settlement Program ID (if known)</b>				
<b>Name</b>	First	M.I.	Last	Suffix
<b>Address</b>	Address 1			
	Address 2			
	City			
	State/Province			
	Postal Code	Country		
<b>Telephone</b>	_ _ _ _  -  _ _ _ _  -  _ _ _ _ _			
<b>Date of Birth</b>	_ _ _ _  /  _ _ _ _  /  _ _ _ _  (Month/Day/Year)			
<b>Date of Death (if applicable)</b>	_ _ _ _  /  _ _ _ _  /  _ _ _ _  (Month/Day/Year)			

**II. DIAGNOSING PHYSICIAN INFORMATION**

<b>National Provider Identifier (NPI)</b>				
<b>Physician Name</b>	First	M.I.	Last	Suffix

**(a) Are you approved as a Qualified BAP Provider or a Qualified MAF Physician?**

- YES.** If YES, you do not need to fill out the rest of this Section II or Sections III or IV. Instead, go to Section V.
- NO.**

**(b) If you answered No, have you previously completed this form for another Retired NFL Football Player, that you know was submitted to the Claims Administrator?**

- YES.** If YES, you do not need to fill out this Section II or Sections III or IV. Instead, go to Section V.
- NO.**

If you answered No to both questions, fill out the rest of this Section II and then go to Section III.

**PRE-EFFECTIVE DATE DIAGNOSING PHYSICIAN CERTIFICATION FORM**  
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<b>Office/Practice Name</b>		
<b>Address</b>	Address 1	
	Address 2	
	City	
	State/Province	
	Postal Code	Country
<b>Telephone</b>		
<b>Fax</b>		
<b>Email Address</b>		

**III. BOARD CERTIFICATIONS**

Check all board certifications that apply and list the board providing the certification and any identification number provided by the board (e.g., American Board of Psychiatry and Neurology diplomate number). If you do not have any board certifications, summarize your relevant medical training and experience and then go to Section IV.

Certification	Board	Board Identification Number	Effective Date	Expiration Date
<input type="checkbox"/> Neurology				
<input type="checkbox"/> Neurosurgery				
<input type="checkbox"/> Neuropathology				
<input type="checkbox"/> Neuropsychology				
<input type="checkbox"/> Other Neuro-specialty				
<input type="checkbox"/> Other Board Certification				

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If you are not board-certified in a neuro-specialty area, summarize your relevant medical training and experience in the field of neurology and related fields that you believe qualifies you to make the diagnosis provided in Section V.

**IV. OTHER QUALIFICATIONS**

Educational Information		Education Level	Institution	Degree/Area of Focus	Date Received																				
	1.	Undergraduate Education			<table border="1"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td align="center" colspan="10">(Month/Year)</td> </tr> </table>											(Month/Year)									
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	2.	Medical School			<table border="1"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td align="center" colspan="10">(Month/Year)</td> </tr> </table>											(Month/Year)									
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3.	Internship			<table border="1"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td align="center" colspan="10">(Month/Year)</td> </tr> </table>											(Month/Year)										
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4.	Residency			<table border="1"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td align="center" colspan="10">(Month/Year)</td> </tr> </table>											(Month/Year)										
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5.	Fellowship			<table border="1"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td align="center" colspan="10">(Month/Year)</td> </tr> </table>											(Month/Year)										
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6.	Other (Graduate)			<table border="1"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td align="center" colspan="10">(Month/Year)</td> </tr> </table>											(Month/Year)										
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States Where Licensed to Practice		State	State License Number	Effective Date	Expiration Date																				
	1.																								

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	2.				
	3.				
	4.				
	5.				
	6.				

<b>Specialties</b>	Check all specialties that apply.	
	<input type="checkbox"/>	<b>Neurology</b>
	<input type="checkbox"/>	<b>Neurosurgery</b>
	<input type="checkbox"/>	<b>Neuropathology</b>
	<input type="checkbox"/>	<b>Neuropsychology</b>
	<input type="checkbox"/>	<b>Other Neuro-specialty (list all)</b> _____
	<input type="checkbox"/>	<b>Other Specialty (list all)</b> _____

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**V. QUALIFYING DIAGNOSIS**

Identify the patient's diagnosis and the date of such diagnosis. See **Appendix A** for the criteria for each diagnosis. Other than for Death with CTE, the identification of a condition, including through a blood test, genetic test, imaging technique, or otherwise, that has not yet resulted in actual cognitive impairment and/or actual neuromuscular impairment in the patient is **not** a Qualifying Diagnosis.

Qualifying Diagnosis	Date of Diagnosis																																																												
<input type="checkbox"/> Level 1.5 Neurocognitive Impairment	<table border="1"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td colspan="10" style="text-align:center">/</td> <td colspan="10" style="text-align:center">/</td> </tr> <tr> <td align="center" colspan="20">(Month/Day/Year)</td> </tr> </table>																					/										/										(Month/Day/Year)																			
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<input type="checkbox"/> Level 2 Neurocognitive Impairment*	<table border="1"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td colspan="10" style="text-align:center">/</td> <td colspan="10" style="text-align:center">/</td> </tr> <tr> <td align="center" colspan="20">(Month/Day/Year)</td> </tr> </table>																					/										/										(Month/Day/Year)																			
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<input type="checkbox"/> ALS (amyotrophic lateral sclerosis)	<table border="1"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td colspan="10" style="text-align:center">/</td> <td colspan="10" style="text-align:center">/</td> </tr> <tr> <td align="center" colspan="20">(Month/Day/Year)</td> </tr> </table>																					/										/										(Month/Day/Year)																			
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<input type="checkbox"/> Death with CTE	<table border="1"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td colspan="10" style="text-align:center">/</td> <td colspan="10" style="text-align:center">/</td> </tr> <tr> <td align="center" colspan="20">(Month/Day/Year)</td> </tr> </table>																					/										/										(Month/Day/Year)																			
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\* If you provided a diagnosis of Level 2 Neurocognitive Impairment, did you determine that certain testing was medically unnecessary because of the severity of the patient's dementia (see **Appendix A**)?

**YES**       **NO**

If you answered Yes, provide the factual basis for that determination:

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**VI. CERTIFICATION**

By signing below, I declare under penalty of perjury, pursuant to 28 U.S.C. § 1746, that all information provided in this form, and all related supporting medical records, are true and correct to the best of my knowledge, information and belief, and that I personally examined the Retired NFL Football Player named in Section I or, in the case of a Qualifying Diagnosis of Death with CTE, I am the board-certified neuropathologist who made the post-mortem diagnosis of CTE.

I acknowledge that any finding of fraudulent conduct may subject me to, without limitation, referral to appropriate regulatory and disciplinary boards and agencies and/or federal authorities, and disqualification from serving in any aspect of the Class Action Settlement.

<b>Signature of Diagnosing Physician</b>				<b>Date of Signature</b>	<table border="1"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td colspan="16" style="text-align: center;">(Month/Day/Year)</td> </tr> </table>																					(Month/Day/Year)															
(Month/Day/Year)																																									
<b>Printed Name</b>	First	M.I.	Last	Suffix																																					

## APPENDIX A

Other than for Death with CTE, the identification of a condition, including through a blood test, genetic test, imaging technique, or otherwise, that has not yet resulted in actual cognitive impairment and/or actual neuromuscular impairment experienced by the patient does not qualify as a diagnosis.

### LEVEL 1.5 NEUROCOGNITIVE IMPAIRMENT

The following diagnosis can only be made:

- (1) prior to July 7, 2014, by a board-certified neurologist, board-certified neurosurgeon, other board-certified neuro-specialist physician, or otherwise qualified neurologist, neurosurgeon or other neuro-specialist physician, except as provided in (3), below;
- (2) from July 7, 2014 through January 7, 2017 (the Effective Date of the Settlement Agreement), by a board-certified neurologist, board-certified neurosurgeon, or other board-certified neuro-specialist physician, except as provided in (3), below; or
- (3) for a patient who died prior to January 7, 2017 (the Effective Date of the Settlement Agreement), where the diagnosis occurred while the patient was living, by a board-certified or otherwise qualified neurologist, neurosurgeon, or other neuro-specialist physician, or by a physician with sufficient qualifications in the field of neurology or neurocognitive disorders to make a diagnosis of Level 1.5 Neurocognitive Impairment:

A diagnosis made outside of the Baseline Assessment Program (BAP) that a living patient suffers from Level 1.5 Neurocognitive Impairment, as set forth below, *i.e.*, early dementia, based on evaluation and evidence generally consistent with the diagnostic criteria set forth and provided below:

There is: (i) Concern of the patient, a knowledgeable informant, or the Qualified BAP Provider that there has been a severe decline in cognitive function; (ii) Evidence of a moderate to severe cognitive decline from a previous level of performance, as determined by and in accordance with the standardized neuropsychological testing protocol annexed in Appendix B, in two or more cognitive domains (complex attention, executive function, learning and memory, language, perceptual-spatial), provided one of the cognitive domains is (a) executive function, (b) learning and memory, or (c) complex attention; (iii) The patient exhibits functional impairment generally consistent with the criteria set forth in the National Alzheimer's Coordinating Center's Clinical Dementia Rating scale Category 1.0 (Mild) in the areas of Community Affairs, Home & Hobbies, and Personal Care—where such functional impairment is corroborated by documentary evidence (*e.g.*, medical records, employment records), the sufficiency of which will be determined by the physician making the diagnosis (and where no documentary evidence of functional impairment exists or is available, then (a) there must be evidence of moderate to severe cognitive decline from a previous level of performance, as determined by and in accordance with the standardized neuropsychological testing protocol annexed in Appendix B, in the executive function cognitive domain or the learning and memory cognitive domain, and at least one other cognitive domain; and (b) the patient's functional impairment, as described above, must be corroborated by a third-party sworn affidavit from a person familiar with the patient's condition (other than the player or his family members), the sufficiency of which will be determined by the diagnosing physician); and (iv) The cognitive deficits do not occur exclusively in the context of a delirium, acute substance abuse, or as a result of medication side effects.



## **LEVEL 2 NEUROCOGNITIVE IMPAIRMENT**

The following diagnosis can only be made:

- (1) prior to July 7, 2014, by a board-certified neurologist, board-certified neurosurgeon, other board-certified neuro-specialist physician, or otherwise qualified neurologist, neurosurgeon or other neuro-specialist physician, except as provided in (3), below;**
- (2) from July 7, 2014 through January 7, 2017 (the Effective Date of the Settlement Agreement), by a board-certified neurologist, board-certified neurosurgeon, or other board-certified neuro-specialist physician, except as provided in (3), below; or**
- (3) for a patient who died prior to January 7, 2017 (the Effective Date of the Settlement Agreement), where the diagnosis occurred while the patient was living, by a board-certified or otherwise qualified neurologist, neurosurgeon, or other neuro-specialist physician, or by a physician with sufficient qualifications in the field of neurology or neurocognitive disorders to make a diagnosis of Level 2 Neurocognitive Impairment:**

A diagnosis made outside of the Baseline Assessment Program (BAP) that a living patient suffers from Level 2 Neurocognitive Impairment, as set forth below, *i.e.*, moderate dementia, based on evaluation and evidence generally consistent with the diagnostic criteria set forth and provided below, unless the diagnosing physician can certify in Section IV of the Diagnosing Physician Certification Form, above, that certain testing specified below for Level 2 Neurocognitive Impairment is medically unnecessary because the patient's dementia is so severe:

There is: (i) Concern of the patient, a knowledgeable informant, or the Qualified BAP Provider that there has been a severe decline in cognitive function; (ii) Evidence of a severe cognitive decline from a previous level of performance, as determined by and in accordance with the standardized neuropsychological testing protocol annexed in Appendix B, in two or more cognitive domains (complex attention, executive function, learning and memory, language, perceptual-spatial), provided one of the cognitive domains is (a) executive function, (b) learning and memory, or (c) complex attention; (iii) The patient exhibits functional impairment generally consistent with the criteria set forth in the National Alzheimer's Coordinating Center's Clinical Dementia Rating scale Category 2.0 (Moderate) in the areas of Community Affairs, Home & Hobbies, and Personal Care—where such functional impairment is corroborated by documentary evidence (*e.g.*, medical records, employment records), the sufficiency of which will be determined by the physician making the diagnosis (and where no documentary evidence of functional evidence exists or is available, then (a) there must be evidence of severe cognitive decline from a previous level of performance, as determined by and in accordance with the standardized neuropsychological testing protocol annexed in Appendix B, in the executive function cognitive domain or the learning and memory cognitive domain, and at least one other cognitive domain; and (b) the patient's functional impairment, as described above, must be corroborated by a third-party sworn affidavit from a person familiar with the patient's condition (other than the player or his family members), the sufficiency of which will be determined by the diagnosing physician); and (iv) The cognitive deficits do not occur exclusively in the context of a delirium, acute substance abuse, or as a result of medication side effects.

## **ALZHEIMER'S DISEASE**

**(1) The following diagnosis can only be made:**

**(a) prior to July 7, 2014, by a board-certified neurologist, board-certified neurosurgeon, other board-certified neuro-specialist physician, or otherwise qualified neurologist, neurosurgeon or other neuro-specialist physician; or**

**(b) from July 7, 2014 through January 7, 2017 (the Effective Date of the Settlement Agreement), by a board-certified neurologist, board-certified neurosurgeon, or other board-certified neuro-specialist physician:**

A diagnosis in a living patient of the specific disease of Alzheimer's Disease as defined by the World Health Organization's International Classification of Diseases, 9th Edition (ICD-9), the World Health Organization's International Classification of Diseases, 10th Edition (ICD-10), or a diagnosis of Major Neurocognitive Disorder due to probable Alzheimer's Disease as defined in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5).

**(2) The following diagnosis can only be made prior to January 7, 2017 (the Effective Date of the Settlement Agreement), by a board-certified or otherwise qualified neurologist, neurosurgeon or other neuro-specialist physician, or by a physician with sufficient qualifications in the field of neurology to make such a diagnosis, where the diagnosis was made while the patient was living but thereafter died prior to January 7, 2017 (the Effective Date of the Settlement Agreement):**

A diagnosis of Major Neurocognitive Disorder due to probable Alzheimer's Disease consistent with the definition in *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) or a diagnosis of Alzheimer's Disease.

## **PARKINSON'S DISEASE**

**(1) The following diagnosis can only be made:**

**(a) prior to July 7, 2014, by a board-certified neurologist, board-certified neurosurgeon, other board-certified neuro-specialist physician, or otherwise qualified neurologist, neurosurgeon or other neuro-specialist physician; or**

**(b) from July 7, 2014 through January 7, 2017 (the Effective Date of the Settlement Agreement), by a board-certified neurologist, board-certified neurosurgeon, or other board-certified neuro-specialist physician:**

A diagnosis in a living patient of the specific disease of Parkinson's Disease as defined by the World Health Organization's International Classification of Diseases, 9th Edition (ICD-9), the World Health Organization's International Classification of Diseases, 10th Edition (ICD-10), or a diagnosis of Major Neurocognitive Disorder probably due to Parkinson's Disease as defined in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5).

**(2) The following diagnosis can only be made prior to January 7, 2017 (the Effective Date of the Settlement Agreement), by a board-certified or otherwise qualified neurologist, neurosurgeon or other neuro-specialist physician, or by a physician with sufficient qualifications in the field of neurology to make such a diagnosis, where the diagnosis was made while the patient was living but thereafter died prior to January 7, 2017 (the Effective Date of the Settlement Agreement):**

A diagnosis of Parkinson's Disease.

## ALS

**(1) The following diagnosis can only be made:**

**(a) prior to July 7, 2014, by a board-certified neurologist, board-certified neurosurgeon, other board-certified neuro-specialist physician, or otherwise qualified neurologist, neurosurgeon or other neuro-specialist physician; or**

**(b) from July 7, 2014 through January 7, 2017 (the Effective Date of the Settlement Agreement), by a board-certified neurologist, board-certified neurosurgeon, or other board-certified neuro-specialist physician:**

A diagnosis in a living patient of the specific disease of Amyotrophic Lateral Sclerosis, also known as Lou Gehrig's Disease (ALS), as defined by the World Health Organization's International Classification of Diseases, 9th Edition (ICD-9) or the World Health Organization's International Classification of Diseases, 10th Edition (ICD-10).

**(2) The following diagnosis can only be made prior to January 7, 2017 (the Effective Date of the Settlement Agreement), by a board-certified or otherwise qualified neurologist, neurosurgeon or other neuro-specialist physician, or by a physician with sufficient qualifications in the field of neurology to make such a diagnosis, where the diagnosis was made while the patient was living but thereafter died prior to January 7, 2017 (the Effective Date of the Settlement Agreement):**

A diagnosis of the specific disease of Amyotrophic Lateral Sclerosis (ALS).

## CTE

**The following diagnosis can only be made prior to April 22, 2015 by a board-certified neuropathologist, provided that a patient who died between July 7, 2014 and April 22, 2015 has until 270 days from the date of death to obtain such a post-mortem diagnosis:**

A post-mortem diagnosis of Chronic Traumatic Encephalopathy (CTE).

## APPENDIX B

### BASELINE NEUROPSYCHOLOGICAL TEST BATTERY AND SPECIFIC IMPAIRMENT CRITERIA FOR RETIRED NFL FOOTBALL PLAYERS

#### Section 1: Test Battery

<b>Estimating Premorbid Intellectual Ability</b>	<b>Learning and Memory (6 scores)</b>
ACS Test of Premorbid Functioning (TOPF)	WMS-IV Logical Memory I
<b>Complex Attention/Processing Speed (6 scores)</b>	WMS-IV Logical Memory II
WAIS-IV Digit Span	WMS-IV Verbal Paired Associates I
WAIS-IV Arithmetic	WMS-IV Verbal Paired Associates II
WAIS-IV Letter Number Sequencing	WMS-IV Visual Reproduction I
WAIS-IV Coding	WMS-IV Visual Reproduction II
WAIS-IV Symbol Search	<b>Language (3 scores)</b>
WAIS-IV Cancellation	Boston Naming Test
<b>Executive Functioning (4 scores)</b>	Category Fluency (Animal Naming)
Verbal Fluency (FAS)	BDAE Complex Ideational Material
Trails B	<b>Spatial-Perceptual (3 scores)</b>
Booklet Category Test	WAIS-IV Block Design
WAIS-IV Similarities	WAIS-IV Visual Puzzles
<b>Effort/Performance Validity (8 scores)</b>	WAIS-IV Matrix Reasoning
<i>ACS Effort Scores</i>	<b>Mental Health</b>
ACS-WAIS-IV Reliable Digit Span	MMPI-2RF
ACS-WMS-IV Logical Memory Recognition	Mini International Neuropsychiatric Interview
ACS-WMS-IV Verbal Paired Associates Recognition	
ACS-WMS-IV Visual Reproduction Recognition	
ACS-Word Choice	
<i>Additional Effort Tests</i>	
Test of Memory Malingering (TOMM)	
Medical Symptom Validity Test (MSVT)	

#### Section 2: Evaluate Performance Validity

Freestanding, embedded and regression based performance validity metrics will be administered to each Retired NFL Football Player during baseline and, if relevant, subsequent neuropsychological examinations. There will be at least seven performance validity metrics utilized during each assessment. The specific performance validity metrics utilized will not be released to the public in order to maintain the highest standards of assessment validity. The performance

## APPENDIX B

validity metrics employed will be rotated at intervals determined by the Appeals Advisory Panel in consultation with Co-Lead Class Counsel and Counsel for the NFL Parties.

Each neuropsychological examiner must complete a checklist of validity criteria as set forth in *Slick et al.* 1999, and revised in 2013 (see below) for every Retired NFL Football Player examined in order to determine whether the Retired NFL Football Player's test data is a valid reflection of his optimal level of neurocognitive functioning.

1. Suboptimal scores on performance validity embedded indicators or tests. The cutoffs for each test should be established based on empirical findings.
2. A pattern of neuropsychological test performance that is markedly discrepant from currently accepted models of normal and abnormal central nervous system (CNS) function. The discrepancy must be consistent with an attempt to exaggerate or fabricate neuropsychological dysfunction (e.g., a patient performs in the severely impaired range on verbal attention measures but in the average range on memory testing; a patient misses items on recognition testing that were consistently provided on previous free recall trials, or misses many easy items when significantly harder items from the same test are passed).
3. Discrepancy between test data and observed behavior. Performance on two or more neuropsychological tests within a domain are discrepant with observed level of cognitive function in a way that suggests exaggeration or fabrication of dysfunction (e.g., a well-educated patient who presents with no significant visual-perceptual deficits or language disturbance in conversational speech performs in the severely impaired range on verbal fluency and confrontation naming tests).
4. Discrepancy between test data and reliable collateral reports. Performance on two or more neuropsychological tests within a domain are discrepant with day-to-day level of cognitive function described by at least one reliable collateral informant in a way that suggests exaggeration or fabrication of dysfunction (e.g., a patient handles all family finances but is unable to perform simple math problems in testing).
5. Discrepancy between test data and documented background history. Improbably poor performance on two or more standardized tests of cognitive function within a specific domain (e.g., memory) that is inconsistent with documented neurological or psychiatric history.
6. Self-reported history is discrepant with documented history. Reported history is markedly discrepant with documented medical or psychosocial history and suggests attempts to exaggerate deficits.
7. Self-reported symptoms are discrepant with known patterns of brain functioning. Reported or endorsed symptoms are improbable in number, pattern, or severity; or markedly inconsistent with expectations for the type or severity of documented medical problems.
8. Self-reported symptoms are discrepant with behavioral observations. Reported symptoms are markedly inconsistent with observed behavior (e.g., a patient complains of severe episodic memory deficits yet has little difficulty remembering names, events, or appointments; a patient complains of severe cognitive deficits yet has little difficulty driving independently and arrives on time for an appointment in an unfamiliar area; a patient complains of severely slowed mentation and concentration problems yet easily follows complex conversation).
9. Self-reported symptoms are discrepant with information obtained from collateral informants. Reported symptoms, history, or observed behavior is inconsistent with information obtained from other informants judged to be adequately reliable. The discrepancy must be consistent with an attempt to exaggerate deficits (e.g., a patient reports severe

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memory impairment and/or behaves as if severely memory-impaired, but his spouse reports that the patient has minimal memory dysfunction at home).

Notwithstanding a practitioner's determination of sufficient effort in accordance with the foregoing factors, a Retired NFL Football Player's failure on two or more effort tests may result in the Retired NFL Football Player's test results being subjected to independent review, or result in a need for supplemental testing of the Retired NFL Football Player.

Note: Additional information relating to the evaluation of effort and performance validity will be provided in a clinician's interpretation guide.

### Section 3: Estimate Premorbid Intellectual Ability

Test	Ability
Test of Premorbid Functioning (TOPF)	Reading Reading + Demographic Variables

The Test of Premorbid Functioning (TOPF) provides three models for predicting premorbid functioning: (a) demographics only, (b) TOPF only, and (c) combined demographics and TOPF prediction equations. For each model using demographic data, a simple and complex prediction equation can be selected. In the simple model, only sex, race/ethnicity, and education, are used in predicting premorbid ability. In the complex model, developmental, personal, and more specific demographic data is incorporated into the equations. The clinician should select a model based on the patient's background and his or her current level of reading or language impairment.

Note: It is necessary to estimate premorbid intellectual functioning in order to use the criteria for impairment set out in this document. Estimated premorbid intellectual ability will be assessed and classified as:

- Below Average (estimated IQ below 90);
- Average (estimated IQ between 90 and 109);
- Above Average (estimated IQ above 110).

### Section 4: Neuropsychological Test Score Criteria by Domain of Cognitive Functioning

There are 5 domains of cognitive functioning. In each domain, there are several tests that contribute 3, 4, or 6 demographically-adjusted test scores for consideration. Test selection in the domains was based on the availability of demographically-adjusted normative data for Caucasians and African Americans. These domains and scores are set out below.

The basic principle for defining impairment on testing is that there must be a pattern of performance that is approximately 1.5 standard deviations (for Level 1 Impairment), 1.7-1.8 standard deviations (for Level 1.5 Impairment) or 2 standard deviations (for Level 2 Impairment) below the person's expected level of premorbid functioning. Therefore, it is necessary to have more than one low test score in each domain. A user manual will be provided to neuropsychologists setting out

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the cutoff scores, criteria for identifying impairment in each cognitive domain, and statistical and normative data to support the impairment criteria.

Domain/Test	Ability
<b>Complex Attention/Speed of Processing (6 Scores)</b>	
Digit Span	Attention & Working Memory
Arithmetic	Mental Arithmetic
Letter Number Sequencing	Attention & Working Memory
Coding	Visual-Processing & Clerical Speed
Symbol Search	Visual-Scanning & Processing Speed
Cancellation	Visual-Scanning Speed
<b>Executive Functioning (4 scores)</b>	
Similarities	Verbal Reasoning
Verbal Fluency (FAS)	Phonemic Verbal Fluency
Trails B	Complex Sequencing
Booklet Category Test	Conceptual Reasoning
<b>Learning and Memory (6 scores)</b>	
Logical Memory I	Immediate Memory for Stories
Logical Memory II	Delayed Memory for Stories
Verbal Paired Associates I	Learning Word Pairs
Verbal Paired Associates II	Delayed Memory for Word Pairs
Visual Reproduction I	Immediate Memory for Designs
Visual Reproduction II	Delayed Memory for Designs
<b>Language</b>	
Boston Naming Test	Confrontation Naming
BDAE Complex Ideational Material	Language Comprehension
Category Fluency	Category (Semantic) Fluency
<b>Visual-Perceptual</b>	
Block Design	Spatial Skills & Problem Solving
Visual Puzzles	Visual Perceptual Reasoning
Matrix Reasoning	Visual Perceptual Reasoning

### Impairment Criteria: *Below Average* Estimated Intellectual Functioning (A1 – E1)

#### **A1. Complex Attention (6 test scores)**

1. Level 1 Impairment: 3 or more scores below a T score of 35
2. Level 1.5 Impairment: 4 or more scores below a T score of 35; or meet for Level 1 and 2 scores below a T score of 30
3. Level 2 Impairment: 3 or more scores below a T score of 30

#### **B1. Executive Function (4 test scores)**

1. Level 1 Impairment: 2 or more scores below a T score of 35
2. Level 1.5 Impairment: 3 or more scores below a T score of 35; or meet for Level 1 and 1 score below a T score of 30
3. Level 2 Impairment: 2 or more scores below a T score of 30



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### **C1. Learning and Memory (6 test scores)**

1. Level 1 Impairment: 3 or more scores below a T score of 35
2. Level 1.5 Impairment: 4 or more scores below a T score of 35; or meet for Level 1 and 2 scores below a T score of 30
3. Level 2 Impairment: 3 or more scores below a T score of 30

### **D1. Language (3 test scores)**

1. Level 1 Impairment: 3 or more scores below a T score of 37
2. Level 1.5 Impairment: meet for Level 1 and 2 scores below a T score of 35
3. Level 2 Impairment: 3 or more scores below a T score of 35

### **E1. Visual-Perceptual (3 test scores)**

1. Level 1 Impairment: 3 or more scores below a T score of 37
2. Level 1.5 Impairment: meet for Level 1 and 2 scores below a T score of 35
3. Level 2 Impairment: 3 or more scores below a T score of 35

## **Impairment Criteria: Average Estimated Intellectual Functioning (A2 – E2)**

### **A2. Complex Attention (6 test scores)**

1. Level 1 Impairment: 2 or more scores below a T score of 35
2. Level 1.5 Impairment: 3 or more scores below a T score of 35; or meet for Level 1 and 1 score below a T score of 30
3. Level 2 Impairment: 2 or more scores below a T score of 30

### **B2. Executive Function (4 test scores)**

1. Level 1 Impairment: 2 or more scores below a T score of 35
2. Level 1.5 Impairment: 3 or more scores below a T score of 35; or meet for Level 1 and 1 score below a T score of 30
3. Level 2 Impairment: 2 or more scores below a T score of 30

### **C2. Learning and Memory (6 test scores)**

1. Level 1 Impairment: 3 or more scores below a T score of 35
2. Level 1.5 Impairment: 4 or more scores below a T score of 35; or meet for Level 1 and 1 score below a T score of 30
3. Level 2 Impairment: 2 or more scores below a T score of 30

### **D2. Language (3 test scores)**

1. Level 1 Impairment: 2 or more scores below a T score of 37
2. Level 1.5 Impairment: 3 or more scores below a T score of 37; or meet for Level 1 and 1 score below a T score of 35
3. Level 2 Impairment: 2 or more scores below a T score of 35

### **E2. Visual-Perceptual (3 test scores)**

1. Level 1 Impairment: 2 or more scores below a T score of 37
2. Level 1.5 Impairment: 3 or more scores below a T score of 37; or meet for Level 1 and 1 score below a T score of 35
3. Level 2 Impairment: 2 or more scores below a T score of 35



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### Impairment Criteria: Above Average Estimated Intellectual Functioning (A3 – E3)

#### **A3. Complex Attention (6 test scores)**

1. Level 1 Impairment: 2 or more scores below a T score of 35
2. Level 1.5 Impairment: meet for Level 1 and 3 or more scores below a T score of 37
3. Level 2 Impairment: 3 or more scores below a T score of 35

#### **B3. Executive Function (4 test scores)**

1. Level 1 Impairment: 2 or more scores below a T score of 37
2. Level 1.5 Impairment: meet for Level 1 and 3 or more scores below a T score of 37; or meet for Level 1 and 1 score below a T score of 30
3. Level 2 Impairment: 2 or more scores below a T score of 30

#### **C3. Learning and Memory (6 test scores)**

1. Level 1 Impairment: 2 or more scores below a T score of 35
2. Level 1.5 Impairment: meet for Level 1 and 3 or more scores below a T score of 37
3. Level 2 Impairment: 3 or more scores below a T score of 35

#### **D3. Language (3 test scores)**

1. Level 1 Impairment: 2 or more scores below a T score of 40
2. Level 1.5 Impairment: 3 scores below at T score of 40; or meet for Level 1 and 1 score below a T score of 37
3. Level 2 Impairment: 2 or more scores below a T score of 37

#### **E3. Visual-Perceptual (3 test scores)**

1. Level 1 Impairment: 2 or more scores below a T score of 40
2. Level 1.5 Impairment: 3 scores below at T score of 40; or meet for Level 1 and 1 score below a T score of 37
3. Level 2 Impairment: 2 or more scores below a T score of 37

### Section 5: Mental Health Assessment

Test	Symptoms/Functioning	Assessment
MMPI-2RF	Mental Health Assessment	Evaluation of Validity Scales and Configurations; T-Scores for Symptom Domains
Mini International Neuropsychiatric Interview (M.I.N.I. Version 5.0.0)	Semi-structured Psychiatric Interview	Scale Criteria for Various Psychiatric Diagnoses