

# **Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) CDE Revision History Document**

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# Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) CDE Revision History Document

## January 2020 Revisions

- General Core CRF updated to replace 'Gender' question with 'Sex assigned at birth' and 'Gender identity'.
- Two new CDEs added to CRF: C58676 (Sex assigned at birth) and C58677 (Gender identity). C00035 has been removed
- Start-Up document updated to reflect these changes.

## August 2018

- Baseline/Covariate Information Subgroup
  - Updates were made to the DePaul Symptom Questionnaire (DSQ) and DePaul Pediatric Health Screening Questionnaire Informational Documents.
    - DSQ – update to the availability information and edits to the short description and scoring sections.
    - DePaul Pediatric Health Screening Questionnaire – changed name of instrument to DSQ-Pediatric Screening Questionnaire (DSQ-PSQ), updates to the availability section, edits to the short description and references and addition of special instruction, scoring and rationale/justification sections.
  - The Highlight Summary and Baseline/Covariate Information Subgroup Summary were updated to reflect the name change for the DSQ-PSQ.

## July 2018

- Post-Exertional Malaise Subgroup
  - Text in the Guidance for PEM-focused Studies document was revised to remove a reference to the 2003 Canadian Consensus Criteria and add further clarification regarding the definition of PEM.
- Pain Subgroup
  - Subgroup summary was updated to include that the Fibromyalgia questions on the Pain Assessment CRF are Supplemental-Highly Recommended.

## June 2018 Revisions

- Sleep Subgroup
  - Corrected Population error for all CDEs on the Sleep Questions for All Studies (F2706) and Sleep Focused Study Questionnaire (F2707). Population was changed from Adult to Adult;Pediatric.
  - Corrected Classification error for CDEs associated with the Sleep Focused Study Questionnaire CRF (F2707) as shown in the table below. The CRF, CDE Details, Sleep

# Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS)

## CDE Revision History Document

Subgroup Summary and ME/CFS Start-up Resource Listing were updated to reflect this revision.

| CDE ID | CDE Name   | Current Classification                 | Corrected Classification               |
|--------|--|--|--|
| C17402 | Site name  | Supplemental                           | Supplemental–<br>Highly<br>Recommended |
| C19247 | Subject ID   |  |  |
| C57101 | ME/CFS prior history sleep problem indicator                   |  |  |
| C57102 | Sleep problem diagnosis type                                   |  |  |
| C57103 | Issue present no diagnosis type                                |  |  |
| C57104 | Acclimation period before study indicator                      |  |  |
| C57105 | Acclimation process description text                           |  |  |
| C57106 | Medication help sleep problem indicator                        |  |  |
| C57107 | Medication taken neurologic psychiatric affect sleep indicator |  |  |
| C57108 | Medication neurologic psychiatric type text                    |  |  |
| C57109 | Medication affect sleep stop indicator                         |  |  |
| C58439 | Medication stopped other instructions given specify text       |  |  |
| C58438 | Prior to study medication stopped duration                     |  |  |
| C57110 | Sleep wake time correspond subject sleep wake time indicator   |  |  |
| C57111 | Objective measure heart rate variability indicator             | Supplemental–<br>Highly<br>Recommended | Supplemental                           |
| C58440 | Objective measure taken what measure text                      |  |  |
| C58441 | Objective measure method of measurement text                   |  |  |
| C58442 | Objective measure when performed text                          |  |  |
| C58443 | Objective measure describe equipment used text                 |  |  |

- Neurologic/Cognitive/CNS Imaging Subgroup
  - PET CRF: Updates were made to the PET CRF to reflect the current state of the science in this imaging modality and the use of PET imaging in ME/CFS. Questions regarding ligands were replaced with updated ones regarding radiopharmaceuticals. Questions related to uptake, distribution, and lateralization were removed. Questions related to hardware, participant groups, and acquisition were added. The question regarding study conclusion as it relates to detecting the presence or absence of something such as a tumor was replaced with a study conclusion question related to the detection of difference/abnormalities.

| CDE ID | CDE Name                    | Added/Removed/Kept                        |
|--------|-----------------------------|---|
| C02494 | Imaging study date and time | Kept (Question text changed to match CRF) |
| C08258 | Imaging radioligand type    | Removed                                   |

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| CDE ID | CDE Name  | Added/Removed/Kept                        |
|--------|---|---|
| C02494 | Imaging study date and time   | Kept (Question text changed to match CRF) |
| C18711 | Imaging radioligand other text  | Removed                                   |
| C08261 | Imaging radioligand dose value  | Removed                                   |
| C13996 | PET localization uptake type  | Removed                                   |
| C13997 | PET localization distribution pattern type                                    | Removed                                   |
| C02411 | Laterality type   | Removed                                   |
| C13998 | PET localization cortical anatomic site                                       | Removed                                   |
| C18529 | Imaging positron emission tomography ictal cortical anatomic site             | Removed                                   |
| C13999 | PET localization study type   | Removed                                   |
| C02494 | Imaging study date and time   | Kept (Question text changed to match CRF) |
| C58527 | Imaging radiopharmaceutical name  | Added                                     |
| C58528 | Imaging radiopharmaceutical manufacturer text                                 | Added                                     |
| C58529 | Imaging radiopharmaceutical synthesis process text                            | Added                                     |
| C58530 | Imaging radiopharmaceutical synthesis process source text                     | Added                                     |
| C58531 | Imaging radiopharmaceutical mechanism of action text                          | Added                                     |
| C58532 | Imaging radiopharmaceutical synthesis administration between average duration | Added                                     |
| C58533 | Imaging radiopharmaceutical dose  | Added                                     |
| C58534 | Imaging radiopharmaceutical molar activity rate                               | Added                                     |
| C58535 | Imaging radiopharmaceutical mass inject measurement                           | Added                                     |
| C58536 | Imaging radiochemical minimum yield value                                     | Added                                     |
| C58537 | Imaging radiochemical minimum purity percentage value                         | Added                                     |
| C58538 | Imaging radiopharmaceutical administration type                               | Added                                     |
| C58539 | Imaging radiopharmaceutical infusion duration                                 | Added                                     |
| C02496 | Imaging scanner manufacturer name   | Added                                     |
| C17939 | Scanner manufacturer other name   | Added                                     |
| C20247 | Imaging scanner model name text   | Added                                     |
| C58540 | Imaging participant group type  | Added                                     |
| C58541 | Imaging patient participant group diagnosis text                              | Added                                     |
| C58542 | Imaging experiment condition task indicator                                   | Added                                     |
| C58543 | Imaging experiment condition task text  | Added                                     |
| C58544 | Imaging scan location type  | Added                                     |
| C08242 | Imaging acquisition duration  | Added                                     |
| C58545 | Imaging matrix size axis 1 measurement  | Added                                     |
| C58546 | Imaging matrix size axis 2 measurement  | Added                                     |
| C58547 | Imaging matrix size axis 3 measurement  | Added                                     |
| C10838 | Imaging voxel size axis 1 measurement   | Added                                     |

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| CDE ID | CDE Name   | Added/Removed/Kept                                 |
|--------|--|--|
| C02494 | Imaging study date and time                                | Kept (Question text changed to match CRF)          |
| C17858 | Imaging voxel size axis 2 measurement                      | Added  |
| C17859 | Imaging voxel size axis 3 measurement                      | Added  |
| C58548 | Imaging Gaussian filter type                               | Added  |
| C08244 | Imaging slice thickness value                              | Added  |
| C58549 | Imaging acquisition plane type                             | Added  |
| C58550 | Imaging acquisition plane other text                       | Added  |
| C58551 | Imaging acquisition correct apply indicator                | Added  |
| C58552 | Imaging acquisition correct apply text                     | Added  |
| C58553 | Imaging patient prepare text                               | Added  |
| C58554 | Imaging dynamic acquisition indicator                      | Added  |
| C17931 | Imaging magnetic resonance imaging performed indicator     | Added  |
| C58555 | Imaging activity arterial blood measure indicator          | Added  |
| C58556 | Imaging activity peripheral blood measure indicator        | Added  |
| C58557 | Imaging metabolite measure indicator                       | Added  |
| C58558 | Imaging pharmacologic effect observe indicator             | Added  |
| C58559 | Imaging adverse event radiopharmaceutical relate indicator | Added  |
| C08236 | Imaging scanner software name                              | Added  |
| C02498 | Imaging scanner software version number                    | Added  |
| C13994 | Imaging PET localization processing type                   | Kept (Removed SPM and added Other, specify to PVs) |
| C56595 | Imaging PET localization processing other text             | Added  |
| C13995 | PET localization rating type                               | Kept (Question text changed to match CRF)          |
| C58560 | Imaging analysis reference region use indicator            | Added  |
| C08270 | Imaging reference region text                              | Added  |
| C58561 | Imaging analysis software package name                     | Added  |
| C10843 | Imaging analysis software version number                   | Added  |
| C58562 | Imaging study conclusion type                              | Added  |

### May 2018 Revisions

- ME/CFS Data Standards webpage
  - Revised the Prospective Assessments for Suicidal Ideation and Behavior section to “Investigators should review the FDA’s [guidance](#) regarding suicidal ideation and behavior.”
- Start-up Resource Listing and Highlight Summary Documents
  - Removed FDA guidance regarding suicidal ideation and behavior in clinical trials language.

# Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS)

## CDE Revision History Document

- Overall Working Group Summary
  - Updated language to describe disease prevalence, variation in case definitions, stratification of participants, and the need for validating how well measures reflect patients' experience of ME/CFS.
- Baseline/Covariate Information Subgroup
  - Added Modifiable Activity Questionnaire (MAQ) as Supplemental under the Outcomes and Endpoints Domain/ Activities of Daily Living/ Performance Sub-Domain. The Highlight Summary and Subgroup Summary were updated to include this new recommendation.
- Pain Subgroup
  - Revised CDEs to match CRF

| CDE ID | CDE Name                                   | Added, Removed or Modified | Modification  |
|--------|--|----------------------------|---|
| C22622 | Wong-Baker FACES - Pain rating scale       | Removed                    |   |
| C22804 | Pain present eleven-point intensity scale  | Added                      |   |
| C55573 | Pain intensity visual analogue scale value | Added                      |   |
| C58517 | Tender point pair cervical vertebrae type  | Added                      |   |
| C58518 | Tender point pair trapezius type           | Added                      |   |
| C58519 | Tender point pair second rib type          | Added                      |   |
| C58520 | Tender point pair lateral epicondyle type  | Added                      |   |
| C58521 | Tender point pair knee type                | Added                      |   |
| C58522 | Tender point pair occiput type             | Added                      |   |
| C58523 | Tender point pair supraspinatus type       | Added                      |   |
| C58524 | Tender point pair gluteal muscle type      | Added                      |   |
| C58525 | Tender point pair trochanter major type    | Added                      |   |
| C58460 | Fibromyalgia diagnosis criterion type      | Modified                   | <p>1. Definition is a duplicate of the Fibromyalgia diagnosis indicator CDE definition<br/>Previously: The indicator related to the diagnosis for fibromyalgia.<br/>Currently: The type of criterion used to diagnose fibromyalgia.</p> <p>2. Added Other, specify to the PVs as listed on the CRF.</p> |
| C58526 | Fibromyalgia diagnosis other text          | Added                      |   |

- Updates to the Pain Assessment CRF – corrected grammar, added 2016 criterion as a PV to the Fibromyalgia diagnosis criterion type question to match the corresponding CDE, and added asterisk to Supplemental-Highly Recommended fibromyalgia questions.
- Neurologic/Cognitive/CNS Imaging Subgroup

# Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS)

## CDE Revision History Document

- Updated Beck Anxiety Inventory NOC to include information about the overestimation of anxiety severity in patients with Postural Tachycardia Syndrome (POTS) and the corresponding reference.
- Updated language in subgroup summary from first person to third person.

### April 2018 Revisions

- Updates to the Start-up Resource Listing and Highlight Summary Documents
  - Revised Fatigue Severity Scale of Sleep Disorders to Fatigue Severity Scale as the copyrighted name of the instrument is: Fatigue Severity Scale.
  - Included note that CDEs on Imaging CRFs are all Supplemental – Highly Recommended and are not listed individually.
  - Deleted NHANES CDEs as they are now classified as Exploratory.
  - Added Core and S-Highly Recommended CDEs that were missing from the list:

| CDEID  | CDE Name                                       | Domain; Sub-Domain; Module   |
|--------|--|--|
| C00015 | Education year count                           | Participant Characteristics; Demographics; General Core  |
| C01521 | Heart rate                                     | Assessments and Examinations; Autonomic; Passive Standing Test Protocol                        |
| C01539 | Temperature measurement                        | Assessments and Examinations; Physical/Neurological Examination; Physical Exam - Immune Module |
| C02014 | Medication prior or concomitant name           | Treatment/Intervention Data; Drugs; Medication and Other Treatments                            |
| C17402 | Site name                                      | Outcomes and End Points; Sleep; Sleep Questions For All Studies                                |
| C19247 | Subject ID                                     | Outcomes and End Points; Sleep; Sleep Questions For All Studies                                |
| C18027 | Comment text                                   | Assessments and Examinations; Autonomic; Passive Standing Test Protocol                        |
| C19500 | Assessment performed date                      | Treatment/Intervention Data; Drugs; Medication and Other Treatments                            |
| C57889 | Cerebellar gait normal gait assessment status  | Assessments and Examinations; Physical/Neurological Examination; Physical Examination          |
| C57891 | Cerebellar tandem Romberg assessment status    | Assessments and Examinations; Physical/Neurological Examination; Physical Examination          |
| C58440 | Objective measure taken what measure text      | Outcomes and End Points; Sleep; Sleep Focused Study Questionnaire                              |
| C58441 | Objective measure method of measurement text   | Outcomes and End Points; Sleep; Sleep Focused Study Questionnaire                              |
| C58442 | Objective measure when performed text          | Outcomes and End Points; Sleep; Sleep Focused Study Questionnaire                              |
| C58443 | Objective measure describe equipment used text | Outcomes and End Points; Sleep; Sleep Focused Study Questionnaire                              |

- Fatigue Subgroup

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- Fatigue Severity Scale - Corrected name of Fatigue Severity Scale by removing "of Sleep Disorders" in the NOC, and Subgroup Summary Document and updated the availability link.
- Checklist for Individual Strength-Fatigue (CIS) - revised NOC to remove cut-offs per subgroup in response to internal review comments. Deleted:

| Section                 | Text   |
|-------------------------|--|
| Scoring                 | "(e.g., subjective fatigue cut-off= 35 or 40 for CFS)"   |
| Rationale/Justification | "therefore higher score of 40 suggested for CFS for subjective fatigue."   |
| Rationale/Justification | "The 35 points cut-off score for severe fatigue is appropriate, but, given the 17% false positive rate, should be adjusted to 40 for research in CFS. (Worm-Smeitink et al., 2017)." |

- Sleep Subgroup
  - Updated subgroup summary: Changes include rewording, and adding purpose for instruments.
  - Updated Sleep Questions for All Studies CRF: Reorganization of questions and changes to classifications and instructions. The DSQ and treatment questions are Core and the NHANES questions are Exploratory. The instructions were updated to match.
  - Updated Sleep Questions for All Studies CDEs to match changes on CRF: The DSQ and treatment questions remained Core and the NHANES questions are now Exploratory. Question order was updated to match reorganization of CRF.
- Pain Subgroup
  - Updated subgroup summary to include information regarding the assessment of fibromyalgia, an explanation of how pain subgroup recommendations fit with other subgroup recommendations, and noted the need for a method for quantitatively assessing pain.
- Neuroendocrine Subgroup
  - Updated population for the following CDEs from Adult to Adult; Pediatric on the Neuroendocrine Labs CRF:
    - C10896 – Pregnancy test performed indicator
    - C01714 – Pregnancy test not applicable reason
    - C01702 – Pregnancy test date and time
    - C01704 – Pregnancy test specimen type
    - C01710 – Pregnancy test qualitative result value
- Biomarkers Subgroup
  - Corrected page numbering footers.

## March 2018 Revisions

- ME/CFS Overall Working Group Summary added to the website.
- Hyperlink to CDE definition was added to the Data Standards Page.
- Revisions to the Roster on the History and Acknowledgments Page:
  - Corrected Dr. Younger's degree to PhD.
  - Removed duplicate listing for Dr. Sullivan under the Neurologic/Cognitive/CNS Imaging Subgroup.
  - Corrected Dr. Biagionni's degree to MD.



# Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS)

## CDE Revision History Document

- Baseline/Covariate Information Subgroup
  - Update name of the Pediatric ME/CFS Screening Questionnaire to the DePaul Pediatric Health Screening Questionnaire. This change was made in the NOC as well as on the Subgroup Summary and Highlight Document.
  - QC of the following NOCs:
    - DePaul Symptom Questionnaire (DSQ)
    - ME/CFS Symptom Checklist
    - DePaul Pediatric Health Screening Questionnaire
- Fatigue Subgroup
  - PROMIS Fatigue Short Form NOC – spelled out computerized adaptive testing (CAT) the first time it is used.
  - Modified Fatigue Impact Scale (MFIS) NOC - Replaced subscript references with parenthetical and deleted duplicate references
- Sleep Subgroup
  - QC of the following NOCs:
    - Stanford Sleepiness Scale
    - Sleep Disorders Screening Checklist
    - Holland Sleep Disorders Questionnaire (HSDQ)
    - Epworth Sleepiness Scale - Children's Version
    - Nonrestorative Sleep Scale (NRSS)
    - Global Sleep Assessment Questionnaire (GSAQ)
    - Restorative Sleep Questionnaire (RSQ)
    - Adolescent Sleep Hygiene Scale (ASHS)
- Pain Subgroup
  - 2016 Fibromyalgia criterion added as a PV and references updated for C58460 Fibromyalgia diagnosis criterion type
- Biomarkers Subgroup
  - The link, <http://www.equator-network.org/>, was revised in the F2795 Biomarkers Guidelines and F2796 Biomarkers Reference Table.
  - Update the following documents on the ME/CFS page under the Laboratory Tests and Biospecimens/Biomarkers subdomain:
    - F2743 Biomarker-Related Sample and Collection Questions: Add questions on type of vial used for specimen collection.
    - F2795 Biomarkers Guidelines: Edits to the Gene expression/transcriptome section to include details on quantitative polymerase chain reaction (qRT-PCR) and Next Generation sequencing (NGS).
    - CDEs for F2743 also revised:
      - C57377: PV added for dose decreased
      - CDEs added:
        - C58461
        - C57375
        - C58463
        - C58464
        - C58466
        - C58467
        - C58468

**Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS)  
CDE Revision History Document**