

A new criteria for diagnosing the illness Chronic Fatigue Syndrome/Chronic Fatigue Immune Dysfunction Syndrome/Myalgic Encephalomyelitis (CFS/CFIDS/ME) was published under the title, "Myalgic encephalomyelitis: International Consensus Criteria", in the *Journal of Internal Medicine*, v. 270, n. 4, 295-400, Oct. 2011. "Myalgic encephalomyelitis (ME)" means muscle pain and inflammation of the brain and spinal cord. The rest of this article reviews the basic features of the 2011 diagnostic criteria and compares it with the 2003 ME/CFS Canadian Case Definition.

The new Criteria uses only the name ME, and not CFS, because according to the authors:

"In view of more recent research and clinical experience that strongly point to widespread inflammation and multisystemic neuropathology, it is more appropriate and correct to use the term 'myalgic encephalomyelitis' (ME) because it indicates an underlying pathophysiology."

ME has, historically, been the name used for the multi-systemic illness in Britain, the European countries, Canada, Australia and New Zealand.

The 2011 ME International Consensus Criteria is co-authored by many of the most respected and committed international CFS/CFIDS/ME researchers and clinicians, including B.M. Carruthers, K.L. DeMeirleir, N.G. Klimas, R. Vallings, L. Bateman, D.S. Bell, J. Miskovits, and A.R. Light.

According to the article, the 2011 Consensus Panel consisted of clinicians and researchers from a wide range of specialties and from thirteen countries. "Collectively, members have approximately 400 years of both clinical and teaching experience, authored hundreds of peer-reviewer publications, diagnosed or treated approximately 50,000 patients with ME..." A number of the authors also contributed to the 2003 Canadian Consensus Criteria, a fact that accounts for much of the continuity between the two Criteria.

Another important aspect of the 2011 Criteria paper is the citation of 119 articles by the authors. These citations constitute a major review of much of the significant illness research over the

past 20 years. This expansion of knowledge was significant enough, according to the authors, to improve the ability to identify and diagnose the illness, thereby providing the basis for the development of the 2011 Criteria.

### **2011 Criteria differentiates CFS/CFIDS/ME from other fatiguing illnesses**

The authors state that ME "...is a complex disease involving profound dysregulation of the central nervous system...and immune system...dysfunction of cellular energy metabolism and ion transport...and cardiovascular abnormalities...

"Criterial symptoms [in the Consensus Criteria] are supported by a study of more than 2500 patients that determined which symptoms had the greatest efficacy to identify patients with ME...

"Investigations into gene expression...and structure...anomalies including increased oxidative stress...altered immune and adrenergic signaling...," and other identified pathophysiologies provided the basis for the development of the new Criteria.

A further aim of the new Criteria is to provide for a better selection of only those patients afflicted with CFS/CFIDS/ME. A major problem with the 1994 Centers for Disease Control and Prevention (CDC) CFS Definition and the more recent 2005 Reeves "Empirical Criteria" is that these diagnostic criteria do not adequately separate patients who are depressed from patients with ME. "Patient sets that include people who do not have the disease lead to biased research findings, inappropriate treatments and waste scarce research funds..." The 2003 Canadian Criteria "differentiate patients with ME from those who are depressed..." The Canadian Consensus Criteria was used as a "starting point" for the new 2011 Criteria, but significant changes were made, including the diagnostic specifics appropriate to children.

### **Overall differences between the 2011 ME International Consensus Criteria and the 2003 ME/CFS Canadian Consensus Criteria**

The 2011 Criteria incorporates much of the new illness research conducted since 2003 and is

structured more on an understanding of the systemic pathological processes of the illness. The 2003 Criteria is organized more according to characteristic "symptom clusters".

The 2011 Criteria names the illness solely as ME and drops the name CFS included in the 2003 ME/CFS Criteria. The authors write: "Using 'fatigue' as a name of a disease gives it exclusive emphasis and has been the most confusing and misused criterion."

Another major change in the new ME Criteria is that the 6-month "waiting period" for diagnosis contained in the 2003 criteria (and in the 1994 CDC Criteria) is eliminated. The authors write: "No other disease criteria require that diagnoses be withheld until after the patient has suffered with the affliction for six months." However, they write: "Notwithstanding, periods of clinical investigation will vary and may be prolonged, diagnosis should be made when the clinician is satisfied that the patient has ME rather than having the diagnosis restricted by a specified time factor."

Two important changes in an understanding of the illness are apparent from the 2011 Criteria. First is *a recognition of the body's pathological inability to produce sufficient energy*. So the symptoms resulting from the response to exertion or recovery from it are given much more significance and made more explicit in the new Criteria. Second, the 2011 Criteria reformulates many of the 2003 autonomic and neuroendocrine symptoms under a new, more inclusive, pathological category of energy production/transportation impairments.

The 2011 Criteria overall requires a greater *number* of minimum symptoms with emphasis on flu-like symptoms, susceptibility to viral infections, genitourinary, gastro-intestinal, and various sensitivities. The 2003 Criteria, in contrast, distributed its minimum number of required symptoms more broadly among immune, autonomic and neuroendocrine symptom-complexes. It also required fewer minimal total symptoms.

The two definitions vary in how symptoms are categorized or grouped together, as well as in the number or combination of symptoms needed in order for the patient to meet the criteria.

### **Pediatric diagnostic considerations in the 2011 Criteria**

In a separate section, the 2011 Criteria discussed how ME might manifest itself somewhat differently in children. The authors write: "Symptoms may progress more slowly in children than in teenagers or adults. In addition to postexertional neuroimmune exhaustion, the most prominent symptoms tend to be neurological: headaches, cognitive impairments, and sleep disturbances."

Headaches are severe or chronic. Migraine headaches "may be accompanied by a rapid drop in temperature, shaking, vomiting, diarrhea and severe weakness." Neurocognitive symptoms may include difficulty with eye-focusing and reading.

"Children may become dyslexic, which may only become evident when fatigued."

There will be slow information-processing which will create difficulty following oral instructions or taking notes. "All cognitive impairments worsen with physical or mental exertion." Young people with the illness may not be able to maintain a full school program. Also, "Pain may seem erratic and migrate quickly...Joint hypermobility is common."

The fluctuation and severity of numerous major symptoms may change in their relative severity and prominence "more rapidly and dramatically than in adults."

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