

Practical Guidance on Diagnosing and Managing ME/CFS

Alan Gurwitt, MD

Leah Williams, PhD

Massachusetts ME/CFS & FM Association

Objectives

- Understand what ME/CFS is (and what it is not)
- Understand prevalence
- Understand diagnosis
- Understand treatment approach
 - Manage symptoms
 - Concept of pacing
- Understand differences between adults and children

What is ME/CFS?

- Myalgic Encephalomyelitis (ME)/Chronic Fatigue Syndrome (CFS)
- Complex, multi-systemic disease:
 - Overwhelming fatigue, not refreshed by sleep
 - Post-exertional malaise (PEM), exhaustion in response to any exertion
 - Cognitive issues, pain, orthostatic intolerance, GI symptoms
- Not a psychological/psychiatric disease

Brief History

- 1934 epidemic in LA hospital
- 1955 outbreak at London's Royal Free Hospital
 - More than 300 staff/medical students
 - Hospital closed for 3 months
 - Clearly biological, possibly infectious in origin
 - Called Myalgic Encephalomyelitis (ME)

Brief History cont.

- 1970 article in BMJ by two psychiatrists
 - Claimed 1955 outbreak was “epidemic hysteria”
- In 1978 BMJ editors renounced paper, but “biopsychosocial theory” had taken hold
- Multiple papers claimed ME was of psychological origin

Brief History cont.

- Large UK clinical trial (PACE, 2005-2010)*
 - Attempted to demonstrate that Graded Exercise Therapy (GET) and Cognitive Behavioral Therapy (CBT) could cure ME
- PACE trial now in question**
 - Inappropriate criteria for entry (Oxford, fatigue only)
 - Made recovery criteria less stringent half way through trial
 - Only self-reported outcomes, no quantitative measures

Current Status

- 2015 Institute of Medicine (IOM) report*
 - “Serious, chronic, complex, systemic disease that often can profoundly affect the lives of patients.”
 - Prevalence estimated at ~ 0.3 to ~0.8%
 - 836,000 to 2.5 million Americans
 - ~ 75% women
 - Age range 10 to 70, bimodal distribution (10-19, 30-39)
 - ~ 80-90% not diagnosed or misdiagnosed
 - Economic burden \$17 to \$24 billion per year

IOM Diagnostic Criteria

- Proposed streamlined criteria for clinical diagnosis
 - Substantial reduction in activity for > 6 months, with fatigue
 - Post-exertional malaise (PEM): Exacerbation of symptoms after physical or cognitive effort
 - Unrefreshing sleep
 - At least one of:
 - Cognitive impairment
 - Orthostatic intolerance

Making a Diagnosis

- Diagnosis by history, presence of symptoms, and targeted workup
- PEM is defining characteristic
 - Even mild physical or cognitive effort can make patients much worse
- No diagnostic test or biomarker yet
 - New biomedical research findings may lead to biomarker

Making a Diagnosis cont.

- Rule out other conditions with tests
- Standard blood tests will likely be normal
- Comorbidities, e.g. fibromyalgia or irritable bowel syndrome, do not preclude ME/CFS
- Enhanced IOM Diagnostic Criteria
 - www.masscfids.org/images/pdf/Expanded_diagnostic_criteria.pdf (handout)

Name of Disease

- Name “Chronic Fatigue Syndrome” problematic
 - Trivializes disease
 - Contributes to stigma, dismissive attitudes
 - Multiple case definitions
- IOM Report proposed new name
 - Systemic Exertion Intolerance Disease (SEID)
 - Not popular, has not been adopted
- In US, federal agencies use ME/CFS

ICD-10-CM Codes

- G93.3 Postviral fatigue syndrome
 - Other disorders of brain
 - Applicable to “benign” ME
- R53.82 Chronic fatigue, unspecified
 - General symptoms and signs/Malaise and fatigue
 - Synonym: CFS
 - Not in WHO ICD-10, instead CFS indexed to G93.3
- Mutually exclusive in US ICD-10-CM
 - Even though Clinical Information is identical
 - Use G93.3 for better disease tracking

Treatment Guidelines

- **ME/CFS Primer for Clinical Practitioners (2014 revision)**
 - http://iacfsme.org/portals/0/pdf/Primer_Post_2014_conference.pdf (handout)
- **CDC Information for Healthcare Providers**
 - <https://www.cdc.gov/me-cfs/healthcare-providers/index.html>
 - New content in February 2018

Treatments

- No cure, no FDA-approved treatments
- US Agency for Healthcare Research and Quality (AHRQ) Evidence Review Addendum*
 - Graded Exercise Therapy (GET) not effective
 - Cognitive Behavioral Therapy (CBT) to correct “false illness beliefs” not effective
- CDC no longer recommends GET, CBT

Treatments: Medications

- Symptom management
 - Sleep problems
 - Pain
 - Autonomic difficulties
- Sometimes medications help, but not universally effective
- ME/CFS patients often very sensitive to medication, start low, go slow
- Use caution with anesthetics

Pacing/Energy Envelope

- No medications for PEM
- Pacing
 - Self management of activity levels
 - Tool: activity & symptom log
- Energy Envelope
 - Recognize early warning signs of PEM
 - Develop strategies to conserve energy

Treat Psychiatric Symptoms (if any)

- Secondary symptoms may follow onset of ME/CFS
- Most common:
 - Anxiety, despair, depression (at times may be severe)
 - Watch for suicidal thoughts
- Psychiatric symptoms before onset of ME/CFS
 - Should be treated
 - Are not the cause of ME/CFS
 - Do not preclude a diagnosis of ME/CFS

Prognosis/Severity

- ~ 5% complete recovery rate for adults
- Many improve, some relapse
- Symptoms wax and wane
- Spectrum of severity
 - Mild: ~ 25% of patients, fairly functional, but still impaired
 - Moderate: ~ 50% of patients, homebound, not able to work, may need assistance
 - Severely ill: ~ 25% of patients, bedbound, need special assistance, can't access medical care

Pediatric Cases

- **New: ME/CFS Diagnosis and Management in Young People: A Primer**
 - Frontiers in Pediatrics (2017), Vol. 5, Article 121, doi: 10.3389/fped.2017.00121 (handout)
- **Prevalence – estimated 0.1 – 0.5 %**
 - More common than juvenile rheumatoid arthritis or Down syndrome
 - 3-4 times more common in girls than boys in adolescents
 - Before puberty, equally prevalent in girls and boys

Typical Pediatric Case

- Can follow infectious disease, e.g., mono or influenza
 - After mono, 13% after 6 months, 7% after 12 months, 4% after 24 months*
- Substantial loss of physical, cognitive functioning
 - Wide spectrum of severity
 - Fluctuating symptoms
- Difficulty attending school

Pediatric Diagnosis

- Thorough medical history
- Developmental history important
 - Usually normal before onset
- Acute onset more common in adolescents
- Gradual onset more common in younger children

Differences Adult/Pediatric

- Clinical diagnostic criteria in Pediatric Primer
- More common in pediatric cases:
 - Orthostatic intolerance (OI), POTS, NMH
 - Hypersensitivity to light, sound, touch, medications
 - Thermo-regulatory imbalance
 - Gastrointestinal symptoms
 - Female patients, worsening during menses

Differential Diagnosis: Depression

Symptom	ME/CFS	Depression/Anxiety
Fatigue, lack of energy, difficulty sleeping, cognitive problems	Yes	Yes
Absence from school	Yes	Yes
Depression/anxiety	Secondary	Yes
Feelings of worthlessness, low self-esteem, lack of pleasure	No	Yes
Suicidal	No	Yes
Lack of interest in school	No	Yes
Lack of interest in friendships	No	Yes
Post-exertional worsening of symptoms	Yes	No

Pediatric Prognosis

- Better than for adult onset
 - One study, 60 – 88 % reported recovery*, another study, 52 – 80 % improved**
 - Recovery/improved \neq never having been sick
- Aggravating factors
 - Failure to diagnose promptly
 - Overexertion leading to “crashes”
 - Inadequate sleep

Pediatric Treatment

- Improve daily function
 - Self-pacing, energy envelope, coping skills
- Manage symptoms
 - Medications for sleep, pain, headaches, OI
 - Start low, go slow
- Do not use Graded Exercise Therapy (GET)
- Balance educational/social needs
- Educate the family

Pediatric Cases: School

- Most common cause of long-term school absence
 - Child wants to attend school but may not be able to manage it
- Physician can support interactions with school
 - Recommend educational accommodations (e.g., part-time, online education)
 - Provide physician's letters for 504/IEP plans, Home or Hospital Services; samples in Primer, at www.masscfids.org
 - CDC Fact Sheets (<https://www.cdc.gov/me-cfs/me-cfs-children/index.html>)

NIH Research Funding

- IOM Report called for significant increase in research funding
- NIH funding historically low*
 - \$6/patient compared to \$235/patient for MS (similar burden of illness, ¼ as many patients)
- Few pediatric studies
- 2017: NIH intramural study, 3 extramural research centers

Unrest

- **Documentary about ME/CFS**
 - Jennifer Brea, Harvard Ph.D. student, struck down by ME/CFS, turns camera on herself
 - Describes plight of severely ill
 - Raises awareness about lack of information, lack of research funding; impact on family
- **Upcoming screenings**
 - March 26 at Harvard Medical School
 - March 27 at MA Department of Public Health State Laboratory
 - March 29 at Emerson College
 - Also available on Netflix, iTunes, Amazon Prime

Take Home Points

- ME/CFS is a real, physical disease
 - ME/CFS is NOT “just fatigue”
 - ME/CFS is NOT psychological/psychiatric
- No FDA-approved treatments, but physicians can help manage symptoms
- Important to validate patient’s experience
- Pacing/living within energy envelope
- Keep hope alive

Massachusetts ME/CFS & FM Association

- Patient services
 - Support groups
 - Local events, patient community
- Education
 - Physicians, school nurses, other healthcare providers
- Advocacy
 - More research funding
 - Legislative efforts, e.g., telemedicine

www.masscfids.org

Questions?