Progression from dysmotility and malabsorption to intestinal failure is supported by objective clinical, biochemical, and functional evidence observed in related autonomic and immune-mediated disorders.

Failure to escalate nutritional support may arise from:

- Misattribution of physiological symptoms to psychosocial causes
- Persistence with enteral feeding despite objective intolerance
- Under-recognition of functional ischaemic gut failure in ME/CFS

Decisions must be grounded in the recognition that ME patients are at risk of severe malnutrition. Severe dehydration and hypovolaemia, potentially related to pituitary and/or renal tubular impairment, require active investigation and timely correction.

Interdisciplinary management involving dietetics, gastroenterology, neurology, immunology, and ME/CFS expertise improves outcomes and reduces preventable harm.

Safeguarding and Professional Responsibilities

Legal and Ethical Duties (UK: England & Wales)

1. Duty of Care (Common Law)

Clinicians must take reasonable steps to prevent foreseeable harm. Withholding essential nutrition from a patient unable to eat or absorb nutrients may give rise to a breach of duty where harm is foreseeable.

2. Care Act 2014

Healthcare providers have a statutory duty to assess and meet eligible care needs, including nutrition support, for adults with long-term conditions.

3. Human Rights Considerations

- Article 2 (Right to Life): Failure to provide life-preserving nutrition may engage Article 2 obligations.

- Article 3 (Freedom from inhuman or degrading treatment): Prolonged starvation or medical neglect may fall within scope.

4. Safeguarding Vulnerable Adults

Clinicians must raise safeguarding concerns where patients are at risk of serious harm, including malnutrition or medical neglect.

5. Professional Standards (GMC – Good Medical Practice)

- Make patient care your first concern
- Act to prevent avoidable harm
- Do not discriminate
- Involve patients in decisions regarding life-sustaining treatment

Conclusion

Patients with severe ME/CFS may develop gastrointestinal dysfunction progressing to intestinal failure and life-threatening malnutrition. A structured, evidence-based escalation of nutritional support — from oral intake to enteral feeding and, where indicated, TPN — is essential.

Early recognition, objective assessment, and appropriate escalation of care are critical to prevent avoidable morbidity and mortality.

Key References: Baxter et al. Life-Threatening Malnutrition in Very Severe ME/CFS. Healthcare, 2021

ASPEN. Clinical Guidelines: Parenteral Nutrition in Adults. JPEN, 2023

Scheibenbogen et al. Why the Psychosomatic View of ME/CFS Is Inconsistent with Evidence. Medicina, 2024

Wirth & Löhn. Microvascular and Mitochondrial Dysfunction in ME/CFS. Medicina, 2024

Afrin et al. Mast Cell Activation Syndrome. Am J Med Sci, 2016

Severe Gastrointestinal Failure and the Necessity of Total Parenteral Nutrition in ME/CFS

Mechanisms, Clinical Challenges, and Professional Responsibilities

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A clinical overview for gastroenterologists, acute physicians, nutrition teams, and safeguarding leads.

Overview

Severe Myalgic Encephalomyelitis / Chronic Fatigue Syndrome (ME/CFS) is a serious, multisystem disease with well-documented **immune, vascular, autonomic, metabolic, mitochondrial, neurological, and neuroinflammatory abnormalities**. It is recognised by the World Health Organisation as a neurological disorder (ICD-10: G93.3).

While post-exertional malaise, dysautonomia, hypovolaemia, mitochondrial dysfunction, calcium channelopathy, cerebral hypoperfusion, and neuroendocrine dysfunction dominate the clinical picture, patients with severe ME/CFS are increasingly presenting with life-threatening gastrointestinal complications, including:

- Severe dysmotility, including gastroparesis
- Autonomic and ischaemia-associated intestinal failure
- Mast Cell Activation Syndrome (MCAS) affecting gut function

These complications can place patients at risk of severe malnutrition, dehydration, and death if appropriate nutritional support is not provided.

Pathophysiological Mechanisms Leading to Intestinal Failure in ME/CFS

Dysautonomia

Autonomic nervous system dysfunction is well established in ME/CFS and includes orthostatic intolerance, postural orthostatic tachycardia syndrome (POTS), and impaired sympathetic and parasympathetic regulation. Disordered autonomic control disrupts gastrointestinal motility, impairs coordinated peristalsis, and contributes to **splanchnic hypoperfusion**, compromising digestion and absorption.

Gastroparesis and Small Bowel Dysmotility

Gastroparesis, defined by delayed gastric emptying without mechanical obstruction, is increasingly recognised in ME/CFS, particularly in patients with autonomic dysfunction. Small bowel dysmotility further impairs transit and absorption. These disorders significantly limit tolerance of oral, nasogastric, and gastrostomy feeding.

Mast Cell Activation and Immune Dysregulation

MCAS and related immune abnormalities are frequently reported in ME/CFS. Mast cell mediators (including histamine, prostaglandins, and leukotrienes) can increase visceral hypersensitivity, disrupt microvascular perfusion, increase intestinal permeability, and exacerbate nausea, pain, and feed intolerance.

Microvascular, Haemodynamic, and Metabolic Contributions

ME/CFS is associated with **low preload states, reduced cardiac output, impaired venous return, hypovolaemia, and microvascular dysfunction**. These abnormalities converge on **chronic splanchnic hypoperfusion**, reducing oxygen and nutrient delivery to the gastrointestinal tract. Impaired mitochondrial energy metabolism further compromises gut motility and absorptive capacity.

Important clinical note:

- Chronic low-flow intestinal ischaemia **does not reliably appear on routine CT imaging**
- Motility failure due to ischaemia is **functional, not obstructive**

Progression to Intestinal Failure in ME/CFS

Intestinal failure is defined as a reduction in gut function below the minimum required to absorb nutrients, fluids, and electrolytes, such that intravenous supplementation is required to maintain health.

In ME/CFS, the interaction of dysautonomia, dysmotility, immune activation, and microvascular impairment can result in an inability to achieve adequate nutrition or hydration via enteral routes.

Indicators include:

- Progressive or unintended weight loss
- Micronutrient deficiencies
- Hypoalbuminaemia
- Dehydration or electrolyte imbalance
- Failure of oral, NG, or PEG feeding due to intolerance or malabsorption

Validated investigations (e.g. gastric emptying studies, motility studies, nutritional markers) support diagnosis and guide escalation.

Escalation of Nutritional Support (Standard Clinical Practice)

A stepwise escalation consistent with ESPEN and ASPEN guidance should be followed:

Oral Nutritional Optimisation

Small, frequent meals; symptom-tailored diets; nutrient-dense oral supplements.

Nasogastric (NG) Feeding

Used when oral intake fails to meet requirements. Requires close monitoring for intolerance (vomiting, high residuals, aspiration risk).

Percutaneous Endoscopic Gastrostomy (PEG)

Appropriate for prolonged enteral support where tolerated. In severe dysmotility or gastroparesis, PEG feeding may worsen symptoms and fail to achieve nutritional goals.

Total Parenteral Nutrition (TPN) in ME/CFS

When enteral nutrition is insufficient, not tolerated, or contraindicated, total parenteral nutrition (TPN) bypasses the gastrointestinal tract entirely and provides complete nutritional support.

Indications include:

- Failure to meet nutritional and fluid requirements via oral, NG, or PEG routes
- Objective evidence of intestinal failure
- Severe dysmotility, malabsorption, or ischaemia-associated gut dysfunction

In patients who meet criteria for intestinal failure, TPN is not an elective intervention but the standard, life-preserving treatment when enteral nutrition has failed or is unsafe.

The requirement for TPN is determined by intestinal function, not by the underlying diagnostic label.

Monitoring for metabolic complications, catheter-related infection, and hepatic dysfunction is integral to safe TPN management.

Discussion

The mechanisms outlined provide a credible physiological basis for severe gastrointestinal dysfunction and intestinal failure in ME/CFS.