Medical Stabilization and Refeeding
For Patients with Eating Disorders

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Disclosure Statement

I do not have any conflict of interest or will be discussing any off-label product use.

This class has no commercial support or sponsorship, nor is it co-sponsored.
Objectives

1. Explain the diagnostic criteria for Anorexia Nervosa and Avoidant/Restrictive Food Intake Disorder
2. Describe the major medical complications associated with starvation and refeeding
3. Describe the cognitive / behavioral changes noted with starvation and refeeding and their relevance to nursing care interventions
4. Describe nursing care activities that provide safety and prevent complications during refeeding
5. Summarize rationale for delivering care in a setting where psychosocial support can be provided
6. Discuss resources to support care on PBMU with families who are concerned about admitting their child to PBMU
Saint Catherine of Siena

ED-Refeeding  CSW Pathway
Project Scope & Context

- 50-100 patients admitted to General Medicine service for medical stabilization and refeeding per year
- Specialized Eating Disorder services are challenging to access
- Clinically challenging
  - Significant medical and behavioral needs
  - Distress w/ refeeding
  - Resistance to diagnosis, expectations, recommendations
- SCH uniquely equipped to manage severe medical symptoms requiring refeeding (Medical Behavioral Bed (MBB) on PBMU)
Anorexia Nervosa

• Diagnostic criteria for Anorexia Nervosa (DSM-V)
  • Restriction of energy intake relative to requirement, leading to a significantly low body weight in the context of age, sex, developmental trajectory, and physical health.
  • Intense fear of gaining weight or of becoming fat, or persistent behavior that interferes with weight gain, even though at a significantly low weight
  • Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight.

(Source: DSM V)
ARFID
(Avoidant / Restrictive Food Intake Disorder)

- **Diagnostic Criteria for ARFID (DSM-V)**
  - 1. An eating or feeding disturbance (e.g., apparent lack of interest in eating or food; avoidance based on the sensory characteristics of food; concern about aversive consequences of eating) as manifested by persistent failure to meet appropriate nutritional and/or energy needs associated with one (or more) of the following:
    - Significant weight loss (or failure to achieve expected weight gain or faltering growth in children).
    - Significant nutritional deficiency.
    - Dependence on enteral feeding or oral nutritional supplements.
    - Marked interference with psychosocial functioning.

(Source: DSM V)
• **Diagnostic Criteria for ARFID (DSM-V)**

  2. The disturbance is not better explained by lack of available food or by an associated culturally sanctioned practice.

  3. The eating disturbance does not occur exclusively during the course of **anorexia nervosa or bulimia nervosa**, and there is no evidence of a disturbance in the way in which one’s body weight or shape is experienced [body image].

  4. The eating disturbance is not attributable to a concurrent medical condition or not better explained by another mental disorder. When the eating disturbance occurs in the context of another condition or disorder, the severity of the eating disturbance exceeds that routinely associated with the condition or disorder and warrants additional clinical attention.

(Source: DSM V)
Case Study: Anorexia Nervosa

- Patient was one of the first patients in our ED-Refeeding pathway
Epidemiology

Both incidence and prevalence rates vary markedly depending on the methods used and the population studied.

Incidence Rate: One recent comprehensive review reported incidence rates ranging from 0.1 to 12 per 100,000 persons per year.

Prevalence rates for AN in American children 9-18 years was reported to be 1.7% in females in one study that followed the children for 10 years.

- 9-10 times more common in females
- 15-19 years of age seems to be the time of greatest risk
- High comorbidity with other psychiatric disorders, especially anxiety disorders
Etiology
Increased Mortality in Eating Disorders

The graph illustrates the standardized mortality ratio for various eating disorders. It shows that eating disorders are associated with increased mortality compared to the general population.

- **Anorexia Nervosa**
- **Bulimia Nervosa**
- **Eating Disorder Not Otherwise Specified**

The bars represent mortality ratios for different causes:

- **All Causes**
- **Suicide**

The data is sourced from the American Journal of Psychiatry (2009).
Eating Disorders and Suicide

Eating disorders: higher rate of suicide

No eating disorder
Anorexia
Bulimia
Other eating disorder (EDNOS)

Source: American Journal of Psychiatry 2009
Anorexia Nervosa – Treatment

• **Family-Based Treatment**
  • Adolescent AN-6 RCT demonstrate effectiveness of FBT
    • Three phases
      • Align with and empower parents to refeed their child
      • Transfer control back to the child
      • Address developmental concerns
  • No evidence that inpatient treatment is helpful long term
    • Our goals should be very limited, help the child get medically stabilized so they can resume outpatient therapy

Source: A Collaborative Approach to Eating Disorders
A Parent’s Perspective

• “Parents represent the adolescent’s best chance of recovery. Most families say that FBT is the most challenging experience we have gone through...we plan meals, calculate calories, shop and cook endlessly. We sit at the table as one meal blends into the next. We absorb the tears, rage, and terror or our child and the rest of the family. But despite the hardships we are grateful to have a role. “

• “A teen age-son, a few years younger than his sister told his mother that the hardest part of the illness wasn’t the conflict-ridden meals; it was watching her starve before they took on refeeding.”

Source: Eating Disorders in Children and Adolescence
Medical Complications Associated with Starvation and Refeeding

- Severe weight loss/starvation can cause damage to all organs and body systems and may lead to:
  - Electrolyte disturbances (hypokalemia, hypophosphatemia, metabolic alkalosis)
  - Cardiac (prolonged QT, bradycardia, hypotension)
  - Neurological
  - GI (Constipation, SMA syndrome, bowel obstruction)
  - Hematology (anemia)
  - Musculoskeletal (osteopenia, dental erosion)
  - Renal Failure
  - Infection
  - Metabolic
Refeeding Syndrome

- Hypokalaemia
- Hypomagnesaemia
- Hypophosphataemia
- Thiamine deficiency
- Salt and water retention - oedema

Starvation / Malnutrition

Glycogenolysis, gluconeogenesis and protein catabolism

Protein, fat, mineral, electrolyte and vitamin depletion — salt and water intolerance

Refeeding (switch to anabolism)

Fluid, salt, nutrients (CHO major energy source)

↑ Glucose uptake
↑ Utilization of thiamine
↑ Uptake of K⁺, Mg²⁺ & PO₄³⁻

↑ Protein and glycogen synthesis

Insulin secretion
Psychological and Behavioral Consequences of Starvation and Refeeding
Study Design
Minnesota Starvation Study
Minnesota Starvation Study

FIGURE 8.5. Minnesota volunteers at mealtime. Copyright 1950 by the University of Minnesota Press. Reprinted by permission.
Minnesota Starvation Experiment
Lessons Learned Helping Starved People
A parent’s perspective

• “One of the most important things a therapist does is prepare a family for what might happen during recovery. Several times during our daughters' recovery, my husband and I were told by professionals, “I’ve never seen behaviors like these. Your daughter is very sick—too sick to stay home with you.” We had to read Ancel Key’s Minnesota Starvation Experiment to understand that anxiety, depression, rage, withdrawal, and self-harm typically intensify once a child begins eating and gaining weight. Parents who think their child’s behaviors and reactions are extreme or frightening are more apt to give up on FBT. But if they know what to expect, they’re more likely to hang in there during the worse of the behaviors. “

Source: Eating Disorders in Children and Adolescence
I. Medical monitoring
II. Patient completes meals & snacks
III. Patient does not engage in compensatory behaviors.
IV. Patient receives psychosocial support to decrease the suffering involved with refeeding
Nursing Care

Medical Monitoring and Nursing Care

Source: MARSIPAN (Management of Really Sick Patients with Anorexia Nervosa)
Nursing Care

Meals
Nursing Care

Activity:
Bed Rest & Compensatory Behavior

Source: MARSIPAN (Management of Really Sick Patients with Anorexia Nervosa)
Nursing Care

Psychosocial Support
Nursing Teaching

- Focus on the symptoms of starvation
  - Patient teaching at each nursing intervention pointing out symptoms and noting that they will resolve with improved nutrition.
- The sooner ED behaviors are stopped and nutrition and physical health are restored, the better the prognosis and the better the person responds to psychotherapy.

Source: Nutrition Intervention in the Treatment of Eating Disorders
Inform them that depression, anxiety, and even agitation are expected with successful refeeding.

- “One of the toughest aspects of any ED treatment is that it doesn’t follow the trajectory we expect: Kids gets, sick, parent takes sick kid to doctor, treatment commences, kid starts to feel better, kid recovers, end of story.”

- With eating disorders the storyline goes more like this: Parents slowly realize something is wrong with kid. Kid insists he or she feels fine. Parents take kid to the doctor. Treatment commences. Kid starts to feel much, MUCH worse. Family life goes out the window. Months of conflict ensue, with kid insisting he or she is fine, not sick at all. Eventually if everyone is lucky, kid recovers. Maybe end of story or maybe the start of a long drawn-out play.”

Source: Eating Disorders in Children and Adolescence
Nursing Care

- Reassure parents they are not to blame, involve them in care
  - “Historically parents have been sidelined in the recovery process, relegated to watching the child suffer, feeling shame and guilt.”
  - “Parenting a child with an eating disorder, in the grip of anorexia, bulimia, or another EDO is one of the most rigorous, confounding, and painful experiences any family can go through, comparable to the stress of caring for someone with psychosis.”

Source: Eating Disorders in Children and Adolescence
Eating Disorder – Refeeding Clinical Roadmap

Clinical Roadmap provided at admission for clear progression and expectations.
Thanks!