MSH Emergency Department

Pediatric ED Eating Disorder Guideline

Date Created: 1/1/2024
Date Reviewed: 1/1/2024
Reviewed By: *D. Birkhead, S. Edwards, J. Sanders, L. Spina*

Clinician judgement should supplement and supersede any clinical guidelines or decision protocol. Departure from these guidelines may be appropriate and necessary in certain clinical situations.

EATING DISORDER MEDICAL ADMISSION CRITERIA:

Vital Sign Instability
▸ HR < 50 *(awake),* HR < 45 *(asleep)*
▸ BP < 90/50, T < 97° F
▸ Orthostatic Vital Signs
If > 19 years of age: sustained increase in HR > 30 bpm
If ≤ 19 years of age: sustained increase in HR > 40 bpm
Sustained decrease in systolic BP > 20 mm Hg or diastolic BP > 10 mm Hg)
▸ Temperature < 96° F or 35.6° C
Prolonged QTc for age
Electrolyte disturbances*:*
▸ Hyponatremia, hypokalemia, hypophosphatemia, hypomagnesemia
Acute food refusal
▸ No caloric PO intake for the past 24 hours OR
▸ < 500 calories/day past 3 days
Acute medical complications of malnutrition, food refusal, or purging
▸ Seizures, syncope, cardiac failure, pancreatitis, esophageal tears/hematemesis
Failure of current outpatient care
▸ i.e. notified by current outpatient provider
Uncontrolled binging and purging
Comorbid psychiatric or medical condition that prohibits or limits appropriate outpatient treatment
▸ e.g., severe depression, suicidal ideation, obsessive-compulsive disorder, type 1 diabetes mellitus
BMI ≤ 75% of the median for age and sex *(see below for calculation)*
▸ Due to increased risk for refeeding syndrome

As outlined in SAHM's 2022 "Medical Management of Restrictive Eating Disorders in Adolescents and Young Adults"

Consider PICU Admission When the Following is Present:
▸ QTc > 0.5
▸ Cardiac arrhythmia other than sinus bradycardia
▸ Altered Mental Status
▸ Persistently low heart rate (< 40 bpm) not responsive to warming or oral nutrition

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GOALS:

- Develop a consistent, multidisciplinary approach to care for eating disorder patients that spans from admission criteria to placement
- Incorporate evidence-based treatment whenever possible and otherwise utilize consensus-based guidelines
- Utilize electronic order sets to improve adherence
- Involve an iterative feedback process from staff and faculty who are involved in treatment
- Understand that the protocol is a guideline for structured nutritional rehabilitation, but not a mandate or a substitute for clinical judgment
- Incorporate ongoing quality improvement and review of outcomes in a longitudinal manner
- Understand how these protocols impact patient-centered care over time.
    - Decreased length of stay
    - Improved weight restoration
    - Improved education and counseling for patients and families

THE FOLLOWING SHOULD BE OBTAINED IN THE ED:

1. History:
    a. Amount of weight loss and time period
    b. Last 24-hour food recall
    c. If patient being followed outpatient, contacting outpatient provider to obtain history/context
    d. Exercise habits *(to help determine need for 1:1 observation in the ED)*
    e. LMP *(for menstruating patients)*
    f. ROS: Hematemesis, vomiting, diarrhea, syncope and/or pre-syncope, peripheral swelling, history of recent fractures
    g. Brief HEADSSS *(include suicidality)*
2. Physical Exam:
    a. Height *(measured in ED, not reported per patient)*
    b. Weight *(gown, undergarments, and socks only; no other clothing or jewelry)* after voiding/emptying bladder
    c. BP and HR including orthostatic BP and HR *(obtain after supine for 5 min, then again after standing directly from supine for 3 min)*
    d. Temperature
    e. Labs (if tests were recently completed, use provider discretion whether to repeat):

i. CBC, CMP, Mg, Phos, TSH w/ reflex FT4, T3, ESR, CRP *(other causes of weight loss such as IBD, thyroid disease)*
ii. UA *(for urine pH (> 8-9 suggests purging) and specific gravity (< 1.010 suggests water-loading))*
iii. Amylase *(if suspect purging),* lipase *(if abdominal pain suggesting possible secondary pancreatitis)*
iv. Assigned female at birth: Urine Pregnancy; if premenarchal, amenorrheic, or irregular cycles: LH, FSH, estradiol, prolactin
v. Assigned male at birth: testosterone, LH, FSH

f. EKG

GUIDE TO CALCULATING % MEDIAN BMI

Steps:	
1. Find Patient's BMI (need patient's height and weight)	
2. Using a CDC growth/BMI chart (or link below), find the BMI at 50th percentile for patient age	
	BOYS: 2-20 Years: Body Mass Index-For-Age Percentiles (cdc.gov)
	GIRLS: 2-20 Years: Body Mass Index-For-Age Percentiles (cdc.gov)
3. % Median BMI (mBMI) = Patient's BMI ÷ BMI at 50th percentile* for age	
Example: 15-year-old girl has a BMI of 14 *(based on entering her height & weight in Step #1)* BMI at 50th percentile for age = 20 *(based on BMI chart in Step #2)* % mBMI = 14 ÷ 20 = 70%	

* The dietitian and/or medical team may adjust the patient's % mBMI to a different BMI %ile (other than 50th%ile) based on the patient's previous growth history (e.g. if the patient has tracked at the 25th percentile prior to weight loss, use this for mBMI calculation)

Table 3
A proposed classification of degree of malnutrition for adolescents and young adults with eating disorders

	Mild	Moderate	Severe
%mBMI[a]	80%–90%	70%–79%	<70%
BMI *z* score	−1 to −1.9	−2 to −2.9	−3 or Greater
Weight loss	>10% Body mass loss	>15% Body mass loss	>20% Body mass loss in 1 year or >10% body mass loss in 6 months

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LINKS:

Complete Kravis Children's Hospital **Eating Disorder Clinical Practice Guideline**.

Eating Disorder Patient Family Handout

Eating Disorder Expanded Family Handout Resources

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Mount Sinai

FOR PROVIDERS: SCREENING, ASSESSMENT AND REFERRAL

HEADSSS Assessment: Risk and Protective Factors

Risk factors increase the likelihood that an adolescent will engage in risky behaviors. Protective factors, on the other hand, build an adolescent's resiliency and contribute to his/her ability to cope with stress and thrive. Identify the adolescent's risk and protective factors during each visit. Encourage all of your patients to build upon their assets and reach out for help.

Biological Risk Factors:

- Genetics: family history of mood, anxiety, and/or eating disorders, schizophrenia, substance addiction.
- In-utero and childhood risks: fetal alcohol exposure, toxin exposure, brain injury, infections, nutritional deficits.

PSYCHOSOCIAL REALMS	PROTECTIVE FACTORS	RISK FACTORS
HOME	• Positive relationship with parent(s) • Parent(s)/family seen as resource • Good communication with parent(s)/family • Caring adults involved in his/her life	• Conflicted/negative relationship with parent(s) • Absent or excessive rules, structure, or supervision • Uncomfortable asking parent(s)/family for help • Poor communication with parent(s)/family • Caring adults cannot be identified
EDUCATION/ EMPLOYMENT	• Positive attitude about school • Involvement in school and school activities • Belief that teachers and school are caring and fair • High academic expectations communicated by parent(s) • Good academic achievement • Future educational attainment goals	• Belief that school is boring, useless, and/or unsafe • Isolated, disengaged, or discriminated in school • Belief that teachers and school mistreat him/her • Low or extremely high academic expectations from parent(s) • Grade(s) repeated, ↓ school performance/attendance • Education not seen as part of her/his future life • 20 hours or more per week of work
ACTIVITIES	• Involvement in supervised group activities such as after-school, community-based, sports, arts and/or faith-based programs • Religious and/or spiritual practice • Involvement in social justice, advocacy, and/or community work • At least one meal per day eaten with family	• Lack of supervision in school or after school • Engaged in risky and/or harmful behaviors • Isolated or disconnected from peers, community, and family • Overscheduled and without down time • Inadequate nutrition or sleep • Excessive preoccupation with diet and/or exercise
DRUGS	• Not associated w/ substance-involved peers • Parent(s)/family members do not use substances • Negative attitude towards substances • Past substance use but now abstinent	• Substance use by peers • Substance use by parent(s)/family members • Early, intense, and/or consistent substance involvement
SEXUALITY	• Intention to abstain from sexual intercourse until late adolescence/young adulthood • Not currently sexually active or using reliable methods to reduce pregnancy and STI/HIV risk • Sexual debut after 15 years of age • Trusted adult to talk to about sexual issues	• Engaged in unprotected sex • Pregnancy or STI in the past • Sexual debut before 14 years of age • Peers are only source of sexual information • History of sexual assault or abuse
SUICIDE/ DEPRESSION/ SELF-IMAGE	• Caring adult to talk to when stressed • Peer support network • Healthy coping skills • Positive self-esteem/ self-image • Acceptance of appearance and weight	• Current depression/isolation/disengagement • Current suicidal ideation • History of suicide attempt and/or major trauma • Family member/friend who committed suicide • Unreasonable expectations from self or others • Extreme dissatisfaction with appearance or weight
SAFETY	• Seat belt and protective gear usage • Good problem solving skills when faced with dangerous situations • Non-violent conflict resolution skills	• No or inconsistent seat belt & protective gear usage • Easy access to weapons or carrying weapons • Victimization through family, intimate partner, gang, or school violence/bullying

Sources:
1) Simmons M, Shalwitz J, Pollock S, Young A. *Adolescent Health Care 101: The Basics.* Adolescent Health Working Group. 2003: B-9. http://www.ahwg.net/resources/toolkit.htm
Annotated HEADSSS assessment can be found in *Adolescent Health Care 101.*
2) Erica Monasterio, RN, MN, FNP. University of California San Francisco, Division of Adolescent Medicine. 2006.