put together by Alex Yartsev: Sorry if i used your images or data and forgot to reference you. Tell me who you are.
aleksei.igorevich@gmail.com

Practical Management of Anorexia Nervosa

Guidelines from the glorious mouthpiece of the American Academy of Pediatrics; these were current on April 27th, 2006.

History Topics to cover:

History of present illness

Weight history
Maximum weight and when? Desired weight?
How does the patient feel about his/her current weight?
How frequently does she/he weigh him/herself?
When did the patient begin to lose weight?
What weight control methods have been tried?

Diet history

Current dietary practices? Ask for specifics, amounts, food groups, fluids, restrictions.
Any binges? Frequency, amount
Any purging? Frequency, amount
Abuse of diuretics, laxatives, diet pills, ipecac?
Exercise history: types, frequency, duration, intensity
Menstrual history: age at menarche? Regularity of cycles?
Last normal menstrual period?

Past medical history

Family history: obesity, eating disorders, depression, substance abuse/alcoholism

Review of systems

Dizziness, blackouts, weakness, fatigue
Pallor, easy bruising/bleeding
Cold intolerance
Hair loss, dry skin
Vomiting, diarrhea, constipation
Fullness, bloating, abdominal pain, epigastric burning
Muscle cramps, joint pains, palpations, chest pain
Menstrual irregularities- very sensitive to starvation
Symptoms of hyperthyroidism, diabetes, malignancy, infection, inflammatory bowel disease

Psychological symptoms/history

Adjustment to pubertal development
Body image/self esteem
Anxiety, depression, obsessive-compulsive disorder, comorbid

Social history:

Home life, school, activities, substance use, sexual history, sexual abuse

Physical Features to look for:

General appearance:
emaciated; sunken cheeks; sallow skin; flat affect. May be normal weight or overweight with bulimia

Vital signs:
bradycardia, hypotension, hypothermia, orthostasis

Skin:
dry skin, lanugo hair, loss of shine or brittle hair, nail changes, hypercarotenemic, subconjunctival hemorrhage (from vomiting)

Face: sunken eyes, dry lips, gingivitis, loss of tooth enamel on lingual and occlusal surfaces, caries, parotitis

Breasts: atrophy

Cardiac:
mitral valve prolapse, click and/or murmur, arrhythmias

Abdomen:
scaphoid, palpable loops of stool, tender epigastrium if vomiting

Extremities:
edema, calluses on dorsum of hand (Russell sign), acrocyanosis, Raynaud's phenomenon

Neuro:
Trousseau' sign, diminished deep tendon reflexes

INVESTIGATIONS: all organ systems are affected, do a work-up of everything

FBC for anaemia; there may also be a mild lleukopenia (with disproportionately low neutrophils)
EUC electrolyte weirdness resulting from, say, not eating, or vomiting; OR there could be renal failure
LFT there will be low albumin; transaminases may increase during refeeding.
BSL they may be hypoglycaemic
ECG because they will likely have some sort of heart failure
BONE DENSITY: Osteopenia is very common
Add various endocrine tests to taste.
Serum cortisol may be elevated
TFTs – low T3, low or normal TSH

CT of the HEAD:
- Widening sulci
- Enlarged ventricles
Not sensitive or specific… HOWEVER in children anorexia is sometimes a masquerade for an occult intracranial neoplasm

MANAGEMENT

Mild or early eating disorder: 85%–95% of ideal body weight, and vital signs stable, full criteria may not be met.

-Begin food plan of 3 meals and 3 snacks, usually with at least 1200–1500 calories/d increasing amount once or twice weekly.
- Referral to dietitian can be very helpful.
-Refer to therapist experienced with teens and their families.
-Set a contract for expected rate of weight gain, target weight, a hospitalization weight, and consequences for failure to gain. Draw target line.
See at least every 2 wk until gaining consistently, then at least monthly till reaches target weight range.
-Communicate weight, vital signs, and any concerns to therapist and dietitian every few weeks.
-Add liquid supplements and/or restrict activity for failure to gain adequately.
If bradycardic, restrict activity.
-See weekly and add parental supervision of meals for continued failure to gain.

Moderate or established eating disorder: 75%–85% IBW, may have changes in vital signs trending downhill, or minor laboratory abnormalities

-Dietician and therapist should be mandatory.
-Restrict from physical activity until on gaining trend and vital signs remain stable.
-Short-term goal is for patient to reach weight at which exercise is safe.
-Set a contract for expected rate of weight gain, target weight, a hospitalization weight, and consequences for failure to gain.
-See at least weekly until gaining consistently, then at least every 2 weeks till reaches target weight range.
-Communicate weight, vital signs, and any concerns to team members regularly.
-Consider liquid supplements to boost caloric intake.
-Discuss the possibility that hospitalization may be necessary if unable to reverse the weight loss.

Severe: 75% IBW, medically unstable, pulse50, may be dehydrated

If delayed gastric emptying is impeding refeeding, cisapride or metoclopramide can be prescribed (with extreme caution if the patient is brady-cardic, has prolonged QT interval, is extremely mal-nourished, or is on selective serotonin reuptake inhibitors).

-Hospitalize. Here it is essential for nursing staff to be included in the plan of action, to take a supportive yet firm approach, not to bargain with the patient or keep information from the team.
-Restore nutrition through food trays planned by dietitian with expectation for completion.
NASOGASTRIC FEEDING if patient unable or unwilling to take in prescribed nutrition.
Give oral or NG supplement in an amount equivalent to uneaten portion of food.
Provide calories through 3 meals and 3 snacks over course of day.
Calorie level should generally start at a minimum of 1200– 1500/d and increase by 200 kcal/d until gaining weight, then by 200 kcal/d every 2–3 d until reaches expected calories.
Monitor closely for refeeding syndrome, fluid shifts, cardiac arrythmias, and other serious acute medical complications.
-The patient should be closely monitored during and for 1 h after eating to provide support and assure compliance.
-Supervise time in bathroom for safety when orthostatic hypotension exists, and to deter exercise or purging.
-Having a therapist see the patient at least several times/wk in the hospital can be valuable.
Because the patient often has difficulty processing information when acutely malnourished, this may be a time for primarily providing support. As nutrition and cognition improves, so will insight, and therapy can proceed. The patient can be asked to write a list of positive or healthy messages she can tell herself when the eating disorder is trying to convince her not to eat. She can learn relaxation techniques to utilize before and after meals.
-Hospitalization needs to be long enough to enable the patient to stop losing weight, establish a gaining weight trend, normalize vital signs and laboratory studies, and be able to eat adequately (with a fair amount of independence) to continue to gain weight as an outpatient.
Patients hospitalized on1 occasion require higher weight goals for discharge. As health improves, the patient can be given greater input on the menu, choose meals from the cafeteria with her family, and eat some meals unsupervised.

General Rules for Adolescents:

- An eating disorder may be present in absence of established diagnostic criteria
- Threshold for intervention should be lower than in adults
- Family should form the centre of the treatment regime (eg. family group therapy)

Predictors of Favorable Outcome:

1. Bulimia better than Anorexia
2. Purging AN is better than restrictive AN
3. Shorter duration of illness
4. Higher discharge weight after hospitalization

Predictors of Unfavorable Outcome:

1. Long duration of illness
2. Low body weight at time of initial treatment
3. High creatinine (1.5) levels
4. Premorbid obesity (for BN)
5. Premorbid asociality
6. Compulsion to exercise
7. Disturbed family relationships

PHARMACOLOGICAL INTERVENTIONS:

Evidence is poor…
Antidepressans do little for AN symptoms but may assist in managing co-morbid depression and anxiety.
Clomipramine may be useful in long term mmaintenance but evidence is lacking
Human Growth Hormone seems to reduce hospital stay and improves vital sign stability more quickly, but has no effect on inpatient weight gain.
Zink supplementation increases the rate of weight gain
Olanzapine is used to improve appetite, but there are no randomized controlled trials.
Maybe Lithium
Maybe Naltrexone
Back in the day, they used to give anorexics insulin (under careful observation) to make them hungry. And it worked. This is no longer an accepted method.

Outcomes of Anorexia Nervosa:

Highest suicide risk in all the mental health disorders!

1. Mortality: 5.6%
2. Frequent weight fluctuations
3. 10%–31% with poor outcomes
4. Average time to first recovery 6 years
5. 50% may also develop BN
6. Increased incidence of depression, anxiety disorder, alcohol dependence
7. 45% never marry- and their Jewish grandmothers may require TCAs

Outcomes of Bulimia Nervosa:

1. Mortality: 5.6%
2. 50% achieve full recovery within 2 years
3. Frequent relapses after recovery
4. 20%–46% may have eating disorder symptoms 6 years after treatment
5. 55% develop mood disorders
6. 42% develop substance use disorders