OBESITY AND UNDERWEIGHT

Obesity, underweight and unexplained significant weight loss are the 3 underwriting issues with "build."

BMI is the usual benchmark for weight. This is the accepted way of reporting weight in relation to height in medicine, and increasingly in underwriting (rather than build).

Most "build" tables are quite liberal in stage one obesity (BMI 30-34.9), begin adding ratings in stage two obesity

(35-39.9) and invariably rate or decline in stage three (≥ 40), Stage 3 is also called "morbid obesity" and confers progressively higher mortality as BMI increases into the 50's etc.

In obese (BMI ≥ 30) applicants, the dominant mortality issue is whether the excess weight is carried in the abdomen (abdominal obesity) vs. in the hips, thighs and back (truncal obesity).

BMI is useless in this context. It is ideal to have the waist circumference (WC). Unfortunately WC is seldom reported clinically and done at most sporadically paramedicals.

BARIATRIC SURGERY

The use of bariatric (weight loss) surgery has increased dramatically in the last 5 years and is now done at BMI as low as 32.5 albeit mainly in diabetics.

There are four main bariatric procedures:

- Roux-en-Y gastric bypass - #1 procedure used now
- Gastric banding – use decreasing
- Sleeve gastrectomy – use in increasing
- Biliopancreatic diversion – more complications, used mainly at BMI ≥ 50

Bariatric surgery is far more effective than any diet in terms of weight loss. Maintaining the weight loss is critical for the advantages to be sustained. These advantages include improvement in or complete resolution of:

- Prediabetes and Type 2 diabetes
- Hypertension
- Hyperlipidemia
- Nonalcoholic fatty liver disease
- LVH
- Sleep apnea
- Degenerative joint disease symptoms

The risk of coronary disease decreases as much as 40% and long-term survival is substantially greater as compare to the advantages conferred by weight loss dieting alone.

UNDERWEIGHT

Underweight is defined as BMI < 18.5.

Many studies have shown that the mortality in "build" is U-shaped. This means it is significantly elevated at the extreme ends of the spectrum. Mortality increases as BMI decreases below 18.5.

The driver in assessing risk in underweight is the context in which is occurs. The issues are underlying diseases, which may be otherwise asymptomatic, and the association between significant underweight and physical frailty in the elderly.

Marked underweight is also a concern in adolescents, especially females, because of anorexia nervosa.

WEIGHT LOSS

The critical issue in weight loss is whether it was voluntary or unintended (involuntary). Voluntary weight loss is rarely a concern other than in suspected anorexia nervosa.

Involuntary weight loss is an underwriting issue when it is at least 5% of premorbid (pre-loss) weight over the past year or > 10% over a longer interval.

The main causes of unexplained weight loss are cancer, major psychiatric disorders including dementia, malnourishment, heavy smoking, alcoholism, elder abuse, COPD, chronic infections, Parkinson disease, opiate abuse and chronic circulatory disease. In addition, 30% of cases cannot be explained despite a clinical workup.

Weight loss in cancer is more likely to occur in the past 12 months whereas in coronary disease weight loss can be insidiously gradual over a half decade or longer.

These are the main lab tests relevant in unexplained weight loss (especially in the elderly because life-threatening causes are more abundant):

- Low normal/below normal serum albumin
- Below normal lipids, especially total cholesterol
- ALT < 10
- Elevated alkaline phosphatase

In addition, a pattern of progressive decreases in serum albumin is a marker for unintended weight loss and associated excess mortality. The same is true for cholesterol in the absence of taking lipid-lowering drugs.

Unexplained weight loss is linked to significant excess mortality in the elderly, whereas unexplained > 5% weight gain in non-obese elders has been shown to improve mortality.