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Letters to the Editor

Bariatric Surgery—Saving Lives

To the Editor:

The American Medical Association has labeled obesity as a disease. This is no shock to those of us who always thought so. Certainly, obesity fits the definition of a disease—a condition that results in complications of health. Obesity is the cause of many health conditions, including type 2 diabetes and its complications (heart disease, vascular complications, and renal failure), hypertension and its complications (heart disease and vascular complications), and hyperlipidemia and its complications (heart disease). Obesity also increases the risk of heart attacks, strokes, obstructive sleep apnea, and cancer. It has long been known that obese individuals are unlikely to live as long as they would if they were normal weight; that is why life insurance tables for height and weight have been created. The Metropolitan Life Insurance Company first put together such a table in 1943 and eventually this correlation led to the term ideal body weight. Now there are many systems for defining ideal body weight, including body mass index (BMI)—widely used today to determine candidates for weight loss or bariatric surgery.

Surgery for weight loss has been performed for more than 50 years; the first gastric bypass was performed (through open surgery) in the mid-1960s. We know that bariatric surgery improves the comorbidities of obesity.[1] More recently, researchers have been trying to show that the surgery is cost effective and increases length of life. At first, study results inferred this outcome, but concrete data now show that this is truly the case. Recent data strongly suggest that in bariatric surgery centers with good outcomes, patients with BMI >35 and a major comorbidity (such as diabetes, hypertension, or hyperlipidemia) and patients with BMI >39 who undergo the most common weight loss procedures—laparoscopic band, laparoscopic sleeve gastrectomy, and laparoscopic gastric bypass—have lower healthcare costs and are likely to live longer if they have surgery than if they don't.

During the last 10 years, the overall risk and mortality of surgery for obesity have significantly improved. This improvement has helped increase the advantage of surgery over nonsurgical treatment. Mortality for the procedures listed above ranges from 0.05 to 0.14%, and morbidity ranges from 1.44 to 5.91%.[1] The costs of the procedures have also declined, largely because of the reduction in risk. Weight loss from these procedures in terms of BMI ranges from 7.05 to 15.34 at 1 year. Gastric bypass improves or resolves comorbidities in the majority of patients: diabetes (83%), hypertension (79%), and hyperlipidemia (66%). The lap band and sleeve gastrectomy also significantly improve these comorbidities but a little less so. In a study of patients with type 2 diabetes, bariatric surgery significantly improved diabetic control compared to a control group receiving medical supervision including nutrition and exercise suggestions.[2] Other studies have shown similar results with diabetes, including one that shows the surgery helps prevent type 2 diabetes vs control (75% of patients in remission vs 0% with medical supervision).[3,4]

The cost of surgery versus the cost of control groups, including those with medically supervised diets and exercise, has been well evaluated by a number of studies. In a Swedish prospective controlled study, the cost of surgical patients was less than the cost of controls starting 7 years postsurgery.[5] Earlier, the surgery patients required care that made the cost more in the surgical group. Of note, the most common procedure performed was the vertical banded gastroplasty, a procedure largely abandoned in the United States because of poor outcomes. Certainly, improvement in comorbidities decreases drug costs.

More and more evidence shows that bariatric surgery decreases mortality. A metaanalysis in 2011 showed that gastric bypass reduced mortality—largely because of decreased cardiovascular events compared with controls.[6]

Metaanalyses can have bias, but single studies have shown similar results. Adams et al showed that long-term mortality from diabetes, heart disease, and cancer is reduced after gastric bypass (40%) over obese controls.[7] In another case-matched control trial, bariatric surgery decreased the risk of death from stroke and MI.[8] These long-term studies show that bariatric surgery not only improves the comorbidities of obesity but also decreases the risk of death from them.

It is important to think of obesity as a disease because it is a condition that decreases life and is medically treatable. The general societal feeling regarding obesity allows nonpayment for its treatment. Most people think that if someone wants to be thinner all he or she has to do is eat less and exercise. Many studies have shown that diet and exercise programs only help 20% of patients; for the majority (80%), these programs don't work. Although some patients either do not lose weight or regain it after bariatric surgery, the majority lose weight, keep it off, and improve their health and quality of life. Hopefully, eventually the majority of people will come to think of obesity as a disease so it will be easier to treat.

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Assisting Patients in Identifying Their Healthcare Providers

To the Editor:

I read with interest the recent article by Landry et al regarding patient preferences for doctor attire.[1] It was not surprising that patients still prefer their physician in the traditional white coat attire, attributing more comfort and confidence in this traditional uniform. However, one area of confusion for patients was not addressed. Historically, the white coat in the clinical setting has signified that person as a physician. More recently, however, many different hospital personnel are wearing long white coats. Advanced practice nurses, physician assistants, respiratory therapists, physical therapists, pharmacists, and even laboratory technicians frequently wear the long white coat in many hospitals.

Identifying each provider's role can be quite confusing for the patient who is not familiar with navigating the complex healthcare system. Adding to that confusion, many nursing and allied health professionals are obtaining terminal doctoral degrees in their respective fields. The ability of a patient to identify who is their doctor will be increasingly difficult. Many leaders are pushing for truth and transparency in the hospital setting with regard to personnel identification. While this does not limit who can wear a long white coat, it does affect how nonphysicians are allowed to introduce themselves and what is displayed on their identification badge. At our hospital, it is required that all personnel wear a photo identification badge above the waist level (closer to patient's eye level). That badge displays in large letters either "Physician," "Nursing," "Administration," or "Staff." It is imperative that we assist patients in knowing each person's role in their healthcare. While the long white coat can provide the patient with a sense of comfort and confidence, it must be combined with other means of proper identification of healthcare workers, including proper and transparent introductions and well-placed, easy-to-understand photo identification badges.

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Assessing Short-Term Mortality Risk in Acute Exacerbations of Chronic Obstructive Pulmonary Disease

To the Editor:

I strongly agree with Chang et al[1] that it would be exceedingly helpful to have a quick and easy model designed for clinical use at the bedside to assess short-term mortality risk in acute exacerbations of chronic obstructive pulmonary disease (COPD).

Some tools exist. The CURB-65 score, which was originally designed to predict mortality in patients with community-acquired pneumonia, can be adapted for risk assessment of COPD, and other models are available for assessing short-term mortality risk.

The Asiimwe et al model[2] uses routine laboratory tests taken within 24 hours of presentation to measure serum albumin, urea, and arterial pCO_2 to predict in-hospital mortality rates of patients with acute exacerbations of COPD. Urea is one of the factors used in the CURB-65 model, underscoring its importance as a prediction tool. Asiimwe et al reported that the group with the highest mortality rates in their trial of 5,985 patients had serum urea >7.35 mmol/L, arterial pCO_2 >6.45 kPa, and normal serum albumin (>36.5 g/L).

Tabak et al[3] have developed a tool for assessing mortality risk associated with acute exacerbations of COPD for in-hospital use, but their nearly 50-response questionnaire, although precise, is less helpful at the bedside than the CURB-65 that has the benefit of being easy to administer and apply to a particular patient with relatively good results. Tabak's model requires more time and precision to administer, which is not always possible, especially because it involves many factors not commonly tested as opposed to the model put forth by Asiimwe et al that includes laboratory values commonly tested regardless of risk assessment.

Although no model has yet been developed to systematically address the following variables, Singanayagam et al[4] list 12 prognostic factors associated with short-term (<2 years) mortality: age, male sex, low body mass index, cardiac failure, chronic renal failure, confusion, long-term oxygen therapy, lower limb edema, Global Initiative for Chronic Lung Disease criteria stage 4, cor pulmonale, acidemia, and elevated plasma troponin level. They also note that 3 factors—age, low Glasgow Coma Scale score, and pH—are associated with an increased risk of mortality in patients in the intensive care unit.

Although a number of factors are helpful in assessing short-term mortality risk in patients experiencing an acute exacerbation of COPD, many of which Chang et al[1] mention in their article, a quick, easy-to-use model that clinicians could apply to patients at the bedside could improve care and help utilize resources most effectively. I believe Asiimwe et al[2] provide a good starting point on which to base such a model.

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Intervention Acceptance in Developing Countries

To the Editor:

Medical interventions such as vaccine trials have been conducted in Africa for many years. While some of these interventions have succeeded in terms of obtaining community buy-in, others have failed to gain the acceptance of the people. One of the most notable failures was the polio vaccination campaign in 2003 that was boycotted in Nigeria. This failure was attributed to many factors, including poor timing, political unrest, rumors generated by religious leaders, and general distrust of mass medical interventions.[1]

In contrast, recent successes have been seen in the GlaxoSmithKline RTS,S malaria vaccine trials taking place in Ghana and Tanzania. Community members in these countries have celebrated both the vaccine itself as well as the secondary health benefits that the vaccine trials provide to the community at large.[2,3] The RTS,S vaccine has an initial efficacy of only 29.9%[4] and a 4-year efficacy of only 16.8%,[5] so it is clear that researchers need to develop a better vaccine. Despite this fact, Febir et al showed that 90% of community members in Ghana believe that with further research the vaccine will prevent malaria.[2] Additionally, Liheluka et al showed that community members in Tanzania appreciated many of the secondary health benefits established by the RTS,S vaccine trials, including improvement of healthcare services and facilities.[3]

The reasons why some medical interventions succeed in communities and others fail to gain acceptance are not completely understood. The stark contrast between the success of the RTS,S trials and the failure of the polio vaccine campaign suggests that many variables affect community perceptions and acceptance of medical interventions. It is clear from the failure of the polio vaccine campaign in Nigeria that implementing mass medical interventions without proper community education and during times of political unrest results in failure. The RTS,S malaria vaccine trials may serve as an example of how appropriate timing and community education can result in an overall acceptance of both the primary and secondary health benefits of an intervention. GlaxoSmithKline should provide a detailed report of the techniques used to obtain community acceptance of the RTS,S vaccine. The techniques employed during these trials could then be used to increase the probability of success of other medical interventions in developing countries.

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