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vastly larger experience, included smoking, dyspnea, chronic obstructive pulmonary disease, and increased alcohol intake, each associated with a 1.2- to 1.5-fold increased risk.

There is a common assumption that obesity increases the risk of postoperative pulmonary complications. Not so in the NSQIP database. The incidence of postoperative pneumonia was 2.4% in patients with a body mass index less than 25 kg/m^2, 1.6% among those with a BMI of 25-40, and 1.25% for those with a BMI of 40-60. The adjusted risk was 1.2 times as great in patients with a BMI below 25 as in those with a BMI of 25-40 or 40-60.

Dr. Gupta indicated that she and her coworkers are now in the midst of additional analyses looking more specifically at patients with a BMI of 18 or less, along with a new comparator group composed of patients with a BMI of 25-30.

Age was an independent risk factor for postoperative pneumonia. The incidence was 0.5% in patients under age 40 years, 1.3% in those aged 40-60 years, 2.7% in patients aged 60-80 years, and 4.5% in those older than 80 years.

The multivariate adjusted risk was 1.3-fold greater in patients aged 40-60 years than in those younger than 40, 1.3-fold greater in those aged 60-80 years than in patients aged 40-60, and 1.3-fold more in those over age 80 than in 60- to 80-year-olds.

The incidence of postoperative pneumonia varied markedly according to the organ addressed in the surgery. Low-risk operations—each with less than a 1% incidence of postoperative pneumonia—included anorectal, appendix, adrenal, bariatric, breast, ob.gyn., hernia, spleen, ENT/neck, spine, vein, and urologic surgery.

The high-risk procedures included nonesophageal thoracic surgery, which had a 3.8-fold risk of postoperative pneumonia, compared with the low-risk operations, and aortic (2.6), intestinal (2.5), brain (2.9), foregut and hepatopancreatobiliary (4.1), and other abdominal operations (2.1). ■

Disclosures: *Dr. Gupta reported having no financial conflicts of interest relevant to her study.*

Prostacyclin Errors Rampant In PAH Patients

SAN DIEGO — Serious errors in prostacyclin infusion therapy are extremely common even at large pulmonary arterial hypertension centers, according to a national survey.

"These findings suggest that infusion therapy for pulmonary hypertension is problematic and that an opportunity exists to improve safety. The development of treatment standards of care and/or guidelines should be considered," Martha S. Kingman, R.N., concluded at the annual meeting of the American College of Chest Physicians.

The national survey, partly funded by the North and Central Texas Clinical and Translational Science Initiative, involved detailed in-depth interviews with nurses at 18 large PAH treatment centers, as well as an electronic questionnaire completed by physicians and other health care providers with a special interest in PAH.

Serious or potentially serious errors in prostacyclin administration were reported by nurses at 17 of 18 (94%) of the large PAH centers. The errors included major miscalculations of dosing, giving one patient the dose intended for another, and flushing of the dedicated infusion line. Three deaths resulted.

A total of 68 of 97 respondents to the electronic questionnaire also reported encountering major prostacyclin infusion errors. These errors had serious consequences in 28 cases, including 9 deaths, according to Ms. Kingman, a nurse practitioner at the University of Texas Southwestern Medical Center, Dallas.

She cited several likely reasons for the high medication error rate. The cassettes for epoprostenol (Flolan) and treprostinil (Remodulin) are identical in appearance, they can't be stored in automated dispensing systems, a multitude of drug concentrations are available, and the therapeutic dosing range for any individual patient is quite narrow.

The most critical factor, however, is undoubtedly the lack of standard formal hospital policies or guidelines for prostacyclin administration, she said.

Ms. Kingman reported having received honoraria from United Technologies and Gilead Sciences, which market intravenous prostacyclins.

—Bruce Jancin