public will continue to demand the surgery because of its effect on symptoms. The profession can fortunately turn to other criteria, such as longevity. The caveat in the assessment of longevity is that the poorer the initial selection and surgery for coronary bypasses, the longer it takes for the favorable results of surgery to appear. Several reports show that good surgery can achieve rates of survival that are close to those of age-matched and sex-matched groups of the general population.

Surgery on asymptomatic patients with angiographically demonstrable lesions that threaten the integrity of a functioning segment of myocardium cannot be dismissed cavalierly. In a disease where the first symptom may be myocardial infarction or death, insistence upon pain as a necessary part of the indication for surgery seems hazardous.

Little of value comes from speculations about the motives of one's adversaries. Such points as financial rewards for cardiac surgery may be worth considering privately but contribute little to public debate. Similar speculations about the motives of those charged with holding down medical costs probably balance the scale and are equally inappropriate subjects for profitable discussion.

I see little merit in Preston's suggestion that only articles that meet his standards of validity should carry a label of "class 1" and that others should be labelled "class 2." If an editor accepts Preston's dictum that the sole road to truth comes from the prospective randomized trial, he will reject reports, instead of labelling them as "class 2." The author's recourse is to try another editor.

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To the Editor:

Greene brings out several points that are important in the controversy over coronary arterial surgery. Those who espouse controlled clinical trials probably know the limitations of such trials better than those who oppose them. As I said in my editorial, controlled studies are the most accurate and ethical, especially in contrast to uncontrolled studies. I know of no one who believes this to be an "impregnable" position, and controlled studies certainly are not "infallible" (nor does anyone claim they are). The point that is relatively indisputable is that controlled studies are much less likely to give us inaccurate or misleading data than are uncontrolled studies, and to disdain the use of controlled studies when they are practical may be unethical, as it is rejecting the best means of obtaining accurate data. That there are limitations of controlled studies is well to keep in mind, but it is no reason for rejecting them. To state that I or others advance controlled trials as "the sole road to truth" is an obfuscation that delays understanding.

I agree with Greene's statement that poor selection leads to difficulty in assessing coronary arterial surgery. Although some reports show that surgical patients have rates of survival close to those of the age-matched and sex-matched general population, we must remember that patients without surgery in the age group receiving the operation also have similar rates of survival. Simply stating that surgical patients have rates of survival "close to" the normal population is another example of how we may mislead ourselves. The good survival may be due to surgery, it may be due to selection of patients who are good risks, or it may be due to other factors. We need a properly controlled study to find the answer.

I agree that we cannot and should not dismiss the possibility of using surgery to prevent myocardial infarction or death. But shouldn't we first have evidence of benefit? Isn't it "cavalier" to perform prophylactic surgery without first getting evidence that such a practice is in the public interest? If we do not insist upon evidence of efficacy prior to widespread use of a type of therapy, we condone and encourage the use of any unvalidated therapy.

Why is it that we must never discuss financial considerations? In any other enterprise involving the public interest, there is recognition and discussion of the central role of economics. The medical profession's unwillingness to discuss a very important aspect of the operation is insupportable when it is primarily the public, not the profession, whose interest is at stake. Unwillingness to discuss what may be the most important factor in the overall utilization of coronary arterial surgery very likely could result in nonprofessional regulation of this and other activities that involve the public, and not just the profession.

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Fiberoptic Bronchoscope-Related Outbreak of Infection with Pseudomonas

To the Editor:

This report concerns a series of positive cultures of Pseudomonas due to faulty sterilization of the fiberoptic bronchoscope. During a 12-day period between Sept 12 and Sept 24, 1976, seven patients underwent nine bronchoscopic procedures. Eight of these procedures were performed with a fiberoptic bronchoscope (Olympus B2), whereas the last procedure was performed using a rigid bronchoscope. Bronchial washings were collected under sterile conditions and were submitted for bacteriologic and cytologic studies.

A rash of positive cultures of Pseudomonas prompted a closer look. Although bacteriophagic typing of the organisms was not performed, it became obvious that all of the positive cultures were caused by the same organism, as indicated by studies of susceptibility. A spot-check of the bronchoscopic equipment with multiple cultures was done. The source of outbreak was traced to the biopsy-suction attachment part of the bronchoscope.

Instead of being dismantled for sterilization, the suction attachment was being soaked in the antiseptic solution in the assembled form. Apparently, the inside of the suction adapter could not be sterilized by immersion in the antiseptic solution.

The initial inoculation of the suction attachment occurred on Sept 12, 1976, during a bronchoscopic procedure performed on a 15-year-old girl admitted to the hospital in diabetic coma. Once inoculated, the organisms persisted in the suction attachment, not only contaminating the subsequent specimens from bronchial washing but also inoculating the offending organism into the right lower lobe of one patient. This 36-year-old man had initially undergone a bronchoscopic procedure to evaluate hemoptysis following blunt injury to the chest. Biopsy was performed on a suspicious lesion from the medial basal segment of the right lower lobe. The patient became febrile, developed an infiltrate in the right lower lobe, and exhibited signs of pulmonary infection. The biopsy was suggestive of malignant neoplasm but was not conclusive. A repeat bronchoscopic procedure with the rigid bronchoscope showed purulent secretions in the right lower lobe, cultures of which grew Pseudomonas.

In retrospect, the pulmonary infection developed as a result of inoculation at the time of the first bronchoscopic procedure.

The techniques of proper sterilization of the fiberoptic bronchoscope have been standardized and are dependable.1,2 This particular outbreak occurred because the procedures for sterilization that are recommended by the manufacturer were not followed.

Under certain clinical situations, it may be difficult to ignore a positive culture from a patient who has symptoms of disease of the respiratory tract or slowly resolving pulmonary infiltrates. Under these circumstances a positive culture could, in some cases, dictate unwarranted treatment with rather potent and potentially hazardous antimicrobial agents.

Complete familiarity with the fiberoptic bronchoscope and proper sterilization of its different components are mandatory. A periodic bacteriologic spot-check of the sterilized instrument and its different components to ensure adequate sterilization cannot be overemphasized.

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Echocardiographic Pulmonic Valvular Motion in Idiopathic Hypertrophic Subaortic Stenosis

To the Editor:

Several reports1,2 have described the echocardiographic patterns of pulmonic valvular motion in patients with pulmonary hypertension. Absence of the "a" wave, flattening or negative slope in diastole, and mid-systolic notch are the features mainly recognized. In a recent study by Kaku et al., no normal subjects exhibited a mid-systolic notch, and this finding was considered indicative of pulmonary hypertension; however, mid-systolic closure or notch can be present in patients with normal pulmonary arterial pressure. We are reporting such a case.

CASE REPORT

A 14-year-old asymptomatic black male patient was referred for evaluation of a cardiac murmur. On physical examination a triple impulse was felt on palpation of the apex. A grade-3/6 systolic ejection murmur was heard best at the lower left sternal border.

The chest x-ray film showed mild cardiomegaly. The electrocardiogram showed left ventricular hypertrophy. An echocardiogram obtained prior to cardiac catheterization re-