were within 7.5 percent as a coefficient of variation (three to five injections). This is an accepted range and reigns as the "gold standard"; however, we should remember that it may be the best possible measurement at present, but it certainly is not the best absolute measurement. The time lag between injections is not given, and neither is the value for mixed venous saturation during this lag. If the measurements took more than 5 min, the patient's venous saturations may have changed by ten percentage points. This would not suggest a steady state—the condition that would have to be met for the Fick calculation to be accurate; the supposition is that if the metabolic rate remains constant, an increase in cardiac output should be matched by a proportionate fall in venous content. Examination of the data of Villar et al shows that the mixed venous saturations were not reported. A 10 percent drop in a venous saturation of 45 percent does not suggest a steady-state condition, especially as far as consumption is concerned.

Further, the accuracy of hemoglobin measurement is ±2 percent, as is the accuracy of saturation measurement. There is no information given on the accuracy of the hemoglobin or saturation measurements. All these factors could combine to create a range of error of ±15 percent in calculated oxygen consumption. Taken together with the large standard deviation in oxygen consumption in the septic groups, it can be seen that steady states between cardiac output measurements probably did not exist, making it difficult to accept the consumption calculation as equivalent to a measured value.

The time has come to ask for consumption measurements rather than calculations. This would have the benefit of a more accurate assessment of oxygen consumption dependency. With today's technology, the accuracy of indirect calorimetry is approximately ±5 percent over a wide range of FiO2 values. This would uncouple the variables and reduce magnification errors in data. It should also be noted that some of the computerized hemodynamic calculations generated daily in the intensive care unit have calculated consumptions. These should be abandoned. As investigators examine oxygen consumption dependency on transport, proper methods of consumption determination are necessary before interventions are recommended.

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REFERENCES

Use of the APACHE II System in Surgical Lung Carcinoma Patients

To the Editor:

We read with interest Dr Castella's comments on our article, and we agree with him that discriminant analysis followed by linear logistic regression on the significant predictors would achieve a higher performance in the classification of specific groups of individuals, like lung carcinoma patients. However, three considerations prevent us from adopting such a scheme: First, a large patient base and a multivariate approach are necessary in our opinion to derive meaningful results; such conditions are not available in our institution. Second, we believe that an exhaustive procedure on a particular patient set would be sensitive to variations in the data and would be of limited usefulness in the prediction of outcome in new patients in the same category (unless the numbers

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Salmonella Lung Abscess in a Patient with Acquired Immunodeficiency Syndrome

To the Editor:

Salmonella bacteremia is a well-recognized complication in immunocompromised hosts, including patients with acquired immunodeficiency syndrome (AIDS). The Salmonella organism is rarely isolated from the respiratory tract either premortem or at autopsy in patients with AIDS. We report a case of Salmonella lung abscess in an AIDS patient.

A 49-year-old Haitian man was admitted in December 1988 with a three-day history of weight loss, dyspnea, and cough. On examination, he was febrile and tachypneic and had rales in the left lung. His WBC was 1,400/mm³, with CD4 of 3/mm³. The human immunodeficiency virus serologic findings were positive. The chest roentgenogram showed a left lung abscess (Fig 1).

Salmonella enteritidis (group D) was isolated from the blood, sputum, and stool. The patient had a complete resolution of the lung abscess after three weeks of intravenous ceftriaxone and chloramphenicol and was discharged on a regimen of zidovudine and trimethoprim-sulfamethoxazole prophylaxis. He was readmitted in April 1990 with fever, but the chest roentgenogram was normal and the microbiologic cultures were normal. He has been followed up for five months with no recurrence.

Salmonella lung abscess has, to our knowledge, been previously reported in AIDS. The excellent clinical response and absence of early relapse in our patient support the low pathogenicity of Salmonella in the respiratory tract, although the effect of trimethoprim-sulfamethoxazole prophylaxis cannot be excluded.

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REFERENCES

Lung Needle Aspiration for Diagnosis of Pneumonia

To the Editor:

I read with great interest in the October 1990 issue of Chest the excellent paper by Dr Torres and colleagues on the subject of percutaneous lung needle aspiration (PLNA) in patients with pneumonia. However, the authors' interpretation of our published data on this subject was not entirely correct. In that article, we reported a study on the diagnostic adequacy of tracheobronchial secretions for establishing the cause of nosocomial pneumonias in critically ill patients. In order to do this, we purposely studied only patients in whom a "gold standard" culture had firmly established the cause of the pulmonary infection. Thus, by definition, our study included only patients who had a positive PLNA result, since those with a negative result were automatically excluded from the final analysis. Obviously, under these circumstances, our report that 11 of 11 PLNAs were positive should not be construed to mean that the sensitivity of the procedure was 100 percent.

Torres and colleagues found a diagnostic sensitivity of 37.5 percent for PLNA in their patients. Reported sensitivities for PLNA in the context of pulmonary infections have varied widely, ranging from less than 40 percent to over 75 to 90 percent. Such variability in diagnostic yield is most likely due to such factors as differences in

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