Our results are in accordance with the article of Fletcher et al\(^3\) who systematically tested the accuracy of this catheter system in humans. He also found a consistent underestimation of the fiberoptic pulmonary artery catheter \( \text{SvO}_2 \) values below 50% compared with direct spectrophotometry and proposed two equations to adjust the catheter measurements:

1. \( \text{Catheter} = -11.68 + 1.1892 \times \text{COOX} \)
2. \( \text{Catheter} = \text{COOX} - 210.997 \exp(-0.099 \times \text{COOX}) \)

\( \text{SvO}_2 \) values readout from the fiberoptic pulmonary artery catheter from ranges 100 to 20%. Our method to evaluate the fiberoptic catheter and the results were already published in Japan in 1992. The illustration of experimental system and the figures of the result in this article are shown below.

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\textbf{REFERENCES}

1 Nakamish N, Joshioka T, Okano Y, et al. Continuous fick cardiac output measurement during exercise by monitoring of mixed venous oxygen saturation and oxygen uptake Chest 1993; 104:419-26


3 Fletcher EC, Miller T, Thornby JI. Accuracy of fiberoptic central venous saturation catheter below 50%. J Appl Physiol 1988; 64:2229-23

\textbf{To the Editor:}

We cannot agree with the comments of Dr. Stengele about our article published in Chest (Chest 1995; 107:139-43) because experiments by our colleagues to evaluate the accuracy of the fiberoptic pulmonary artery catheter (Opticath) shows good correlations between spectrophotometrically measured \( \text{SvO}_2 \) and

\textbf{A Matter of Terminology}

\textbf{Alveolar-Arterial Oxygen Gradient}

\textbf{To the Editor:}

I would like to commend Stein and colleagues (Chest 1995; 107:139-43) on showing that normal arterial hemoglobin oxygenation does not exclude the diagnosis of acute pulmonary embolism. The use of the term "alveolar-arterial oxygen gradient," however, needs some discussion. The authors predict the normal alveolar partial pressure of oxygen from the standard alveolar gas equation, which assumes an idealized lung where all alveoli are perfused and ventilated uniformly. Even a normal lung contains alveoli with different partial pressures of oxygen in both the alveolar space and end-cap-