



Title	Perioperative Nutritional Support: Author's reply
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The authors reply:

To the Editor: We agree with Dr. Silen that management should be planned on the basis of all the available clinical information. Nevertheless, although screening mammography is not intended for definitive diagnoses of breast cancer, an abnormal result on screening can sometimes suggest an appropriate plan of management, despite the absence of an indicative clinical history or physical findings.

The use of ROC curves suggested by Drs. D'Orsi and Swets is an interesting way of showing points for 10 observers, but we doubt that it contributes more than the visual display. A reduction in variability will surely require more than quantitative analysis alone.

We think it is "healthy and desirable" (to use Dr. Hall's phrase) for radiologists to discover that they can be inconsistent, but we do not advocate pushing "toward conformity" in situations in which the best approach has not yet been established. We continue to urge radiologists to develop better procedures for reducing their inconsistencies and for making optimal decisions in both diagnosis and management.

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PERIOPERATIVE NUTRITIONAL SUPPORT

To the Editor: Fan and colleagues continue the search for proof of the efficacy of perioperative parenteral nutritional support (Dec. 8 issue).¹ They report that among patients undergoing hepatic resection for hepatocellular carcinoma, those receiving perioperative parenteral nutrition had less weight loss, better hepatic function, and a lower rate of morbidity than those who did not. Before one accepts these conclusions, however, several points need clarification. All the patients in their study had access to the normal diet on a hospital unit, and the authors do not state whether dietary intake was matched between the two groups. In addition, in many units patients with similar degrees of malnutrition routinely receive enteral nutritional support, and such patients might have been a more appropriate control group for this study.

The authors claim that weight loss was diminished in the group receiving perioperative nutritional support, yet they also claim that this group had a reduced requirement for diuretic agents. Because a shift in the fluid balance is the major component of a change in weight after surgery, the addition of data on the fluid balance or, ideally, an analysis of body composition would indicate the component of body composition that this weight change involved. Furthermore, the presence of hyperglycemia and possibly glycosuria and concurrent water loss may account to some extent for the difference in weight changes between the two groups of patients.

Finally, the chief benefit of perioperative nutritional support, according to the authors, lies in reducing pulmonary sepsis, which is one of the most frequent causes of morbidity after major surgery. Of all septic complications, however, pulmonary sepsis is the most difficult to quantify. Since the study emphasizes this complication, other measures of pulmonary performance, such as pulmonary-function tests, ventilation requirements, and blood gas analyses, would strengthen the argument.

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1. Fan S-T, Lo C-M, Lai ECS, Chu K-M, Liu C-L, Wong J. Perioperative nutritional support in patients undergoing hepatectomy for hepatocellular carcinoma. *N Engl J Med* 1994;331:1547-52.

To the Editor: Fan et al. report that perioperative nutritional support in patients undergoing hepatectomy has beneficial effects on the concentrations of some plasma proteins. However, their results might have been influenced by differences in both the amounts and the types of fluids infused during surgery. The authors provide no information about the replacement of intraoperative blood losses. During surgery, the perioperative-nutrition group lost 0.7 liter of blood more than did the controls. The concentrations of some plasma proteins might have been affected by whether whole blood or plasma was transfused. If lost blood was replaced with protein-free solutions, endogenous plasma proteins would have become diluted, thus leading to an underestimation of the effects of perioperative nutrition. Furthermore, with regard to prealbumin, the pretreatment values were already lower in the control group than in the perioperative-nutrition group. The relative change in the perioperative-nutrition group (-40 mg per liter) was of the same magnitude as that in the control group (-41 mg per liter).

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Dr. Fan replies:

To the Editor: The volume of blood replaced was 1.99 liters in the perioperative-nutrition group and 2.05 liters in the control group. Other than that, fluids were replaced mainly with protein-free electrolyte solutions. Since retinol-binding protein, prealbumin, and transferrin are proteins with short half-lives and the differences in the serum levels between the two groups were significant primarily in the later part of the postoperative period, it is plausible that these differences were of hepatic origin and not related to blood transfusions.

Preoperative parenteral nutrition was given as a supplement to oral intake. All the patients were receiving a hospital diet, but it was extremely difficult to quantify the intake accurately, and therefore this information was not included in the analysis. In the early postoperative period, the oral intake was not substantial and did not contribute to the improvement in nutritional status. Fluid-balance studies were not performed prospectively, and body composition was also not analyzed in this study. I would think that body weight would be the ultimate reflection of changes in the fluid balance and body composition. Finally, there was no statistical difference between the postoperative ventilation requirements and blood gas values in the two groups.

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PHYSICIANS AND MANAGED CARE

To the Editor: The article by Iglehart (Oct. 27 issue)¹ is well organized, comprehensive, and also provocative. Unfortunately, an important issue not discussed is the problem of