(continued from page 206)
tween IV drug administration and surgery should not exceed 1 hr.[4,5]

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Filter Use for Hyperalimentation Therapy

To the Editor:

I would like to inquire about your recommendations regarding the use of filters for hyperalimentation therapy.

The current policy and procedure for parenteral therapy at our 246-bed hospital includes changing the intravenous tubing and the .22 micron filter every 24 hours.

In my clinical practice, I have found that before the 24 hours is complete, by the process of elimination, occlusion is traced to the filter. Therefore, either complete tubing change or just the filter change is necessary. Obviously, only changing the filter breaks the system, which is not acceptable. Do you recommend a larger size filter or none at all?

I would appreciate your recommendations on this subject, as I am the nurse on our Nutrition and Metabolic Support Service Team.

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This letter was referred to Richard A. Garibaldi, M.D., for his comments.

A great deal of confusion still exists regarding the need for bacteria-tight filters with hyperalimentation therapy. In the early 1970s, high rates of bacterial and fungal sepsis were associated with the administration of hyperalimentation.[1] Microbiologic studies suggested that hyperalimentation solution was a nutrient media for the growth of certain fungi and gram-negative bacteria.[2] At that time it was felt, on a theoretic basis, that filters could prevent intrinsic contaminants from gaining access to the patient's bloodstream. Subsequently, as more stringent methods for hyperalimentation administration were developed the incidence of hyperalimentation-associated sepsis has decreased.[3] Currently, it is thought that organisms causing sepsis are more likely to gain access to the blood stream by migrating along the outside of the catheter or by contamination of the infusion apparatus secondary to breaks in the closed system.[4] Thus, some groups have felt that bacteria-tight filters are unnecessary from the point of view of infection control, and might actually increase the risk of infection because their use necessitates frequent filter or tubing changes.

Unfortunately, no large scale, prospective, blinded trial is available which evaluates the efficacy of filters in preventing hyperalimentation-associated infections. Thus, the decision to recommend or not recommend filters must be gleaned from indirect testimonials and subjective impressions. Each hospital must weigh potential risks against potential benefits. It is even more difficult to calculate costs associated with using and not using filters because data on efficacy are not available. In view of the lack of supportive data, I think that it is reasonable to forego the routine use of bacteria-tight filters for hyperalimentation infusions.

For the purposes of infection control, I would place a greater emphasis on the mechanics of infusate preparation, catheter insertion, wound care, maintenance of a closed system and avoidance of other uses for the hyperalimentation line such as blood sampling, medication administration or transfusions. Clearly, this is a subject for which more information is needed.

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