

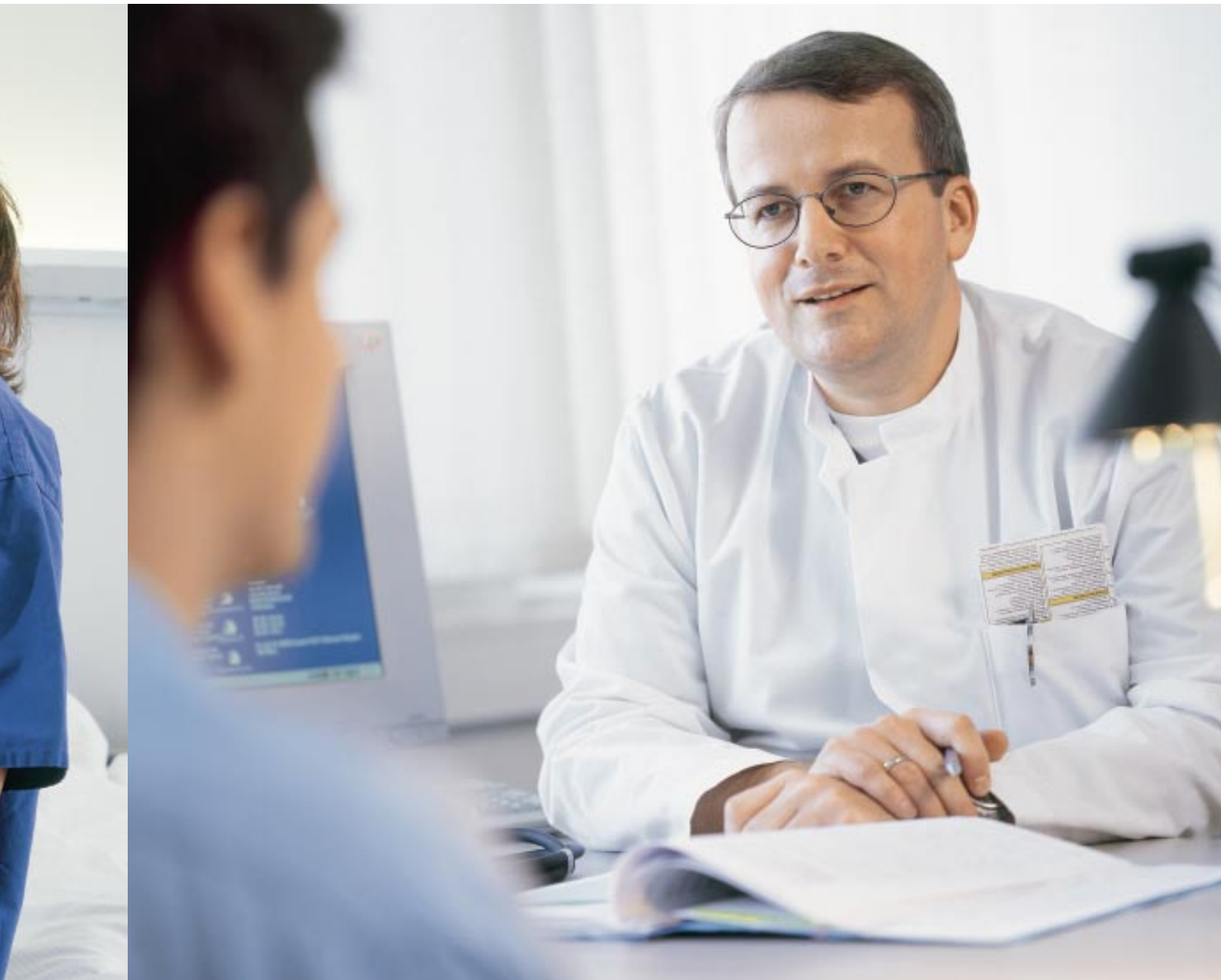
Initiative Clinical Nutrition

Nowadays, healthy nutrition is considered to be more important than ever before. And our knowledge about nutrition is greater today than it ever was. But there is an undeniable gap between knowledge and reality.

Patients in hospitals are frequently malnourished. The European Council's report* on the nutritional situation in hospitals, published in November 2002, confirms that around 30 percent of all patients in Europe are malnourished. While not new, the problem of malnutrition is largely ignored in the everyday hospital routine. In developing countries, economic aspects are major factors leading to malnutrition; in industrial countries, however, a lack of focus of the clinical consequences of malnutrition is the main reason. Loss of weight and a lack of essential nutrients can lead to complications, longer rehabilitation times, a diminished quality of life and increased mortality rates.



An infusion pump regulates the supply of the parenteral nutrition solution StructoKabiven®



Recognizing malnutrition is important for the therapy



The consequences for the public health systems are considerable: Studies show that malnourished patients cause additional treatment costs of US\$ 3,000 to 6,000 per patient compared to patients with a normal nutritional status **. Malnourished patients are hospitalized for about 40 percent longer***. Therefore, from an economic point of view, it is essential that the diagnosis of the nutritional status of patients, and the use of necessary nutritional therapies, become part of the normal hospital routine.

** (Reilly et al.)
*** (Pirlich et al.)



Enteral nutrition can also be used for patients with metabolic disturbances

Ambulatory care needs to be coordinated

Close to the patient. To be cared for at home – this is what many patients want, especially those who still have to be fed parenterally or enterally after they have come out of hospital. About 20 years ago, we were one of the first companies in Germany to establish a Home Care organization. Today, in numerous European countries, we provide nutrition therapy for patients in the ambulatory environment; in Germany alone we carry out around 200,000 provisions each year.



Initiative is our commitment

Fresenius Kabi, the leading clinical nutrition company in Europe, has already taken the initiative in this field. Its program "Good Nutrition Practice" sets new international standards in the nutritional therapy of patients. In collaboration with an international team of experts, we are working on a series of measures aimed at creating a simple and practical procedure to identify patients at risk, determine their nutritional needs and monitor their nutritional status.

"Good Nutrition Practice" consists of four elements:

- ▶ **Screening:** When a patient is admitted to a hospital, he is screened to determine any existing or potential risk of malnourishment. The degree of the risk is evaluated.
- ▶ **Assessment:** The nutritional requirements of the patient are determined, and relevant metabolic, nutritional and laboratory parameters assessed.
- ▶ **Nutrition therapy:** If the gastro-intestinal tract is working properly, the patient either receives normal food and/or is fed enterally. Parenteral nutrition is used if nutrients have to be administered directly into the blood stream (intravenously).
- ▶ **Monitoring:** The effectiveness of the nutrition regimen is monitored. Parameters include the regular measurement of the body mass index and the evaluation of the fluid and energy balance.

Knowledge creates awareness

Creating awareness, and thereby improving conditions, is one of our main tasks. For ten years we have held our scientific symposium, the Fresenius Kabi Advanced Nutrition Course (FRANC), in Europe, as well as in the Asia-Pacific region for the past three years. In the Asia-Pacific region, patients are being administered parenteral and enteral nutrition to an increasing extent. But here too it is necessary to increase awareness of the role that clinical nutrition plays in contributing to the success of therapy.

Take measures early on

A deficiency in key nutrients influences the immune system. Other diseases can occur, and the patient may not recover so quickly. Fresenius Kabi is one of the few companies in the world that has the necessary expertise in both parenteral and enteral nutrition. We develop new therapies that prevent malnourishment occurring early on. One example: A new enteral tube feed with immunologically effective nutrients that can be administered before or immediately after surgery, and can also be combined with parenteral nutrition. The intestinal functions are maintained and the patient's resistance to infections is increased.



A model that sets an example. At the end of 2003, doctors from the Main Taunus Kliniken group of hospitals near Frankfurt presented some new figures: Starting in October 2003, the nutritional status of 110 patients was examined when they entered the hospital. Almost every second patient had an increased risk of malnutrition. Around 35 percent of newly-admitted patients received nutrition therapy immediately. It is important to act: Main Taunus Kliniken and Fresenius Kabi are planning to establish a nutrition advisory service in the hospitals of Main Taunus Kliniken. Teams of nutritionists will care for the patients during their stay in hospital, as well as afterwards on an out-patient basis.