Partial EN (enteral nutrition) should always be aimed for in patients with renal failure that require nutritional support. Nevertheless PN (parenteral nutrition) may be necessary in renal failure in patient groups with acute or chronic renal failure (ARF or CRF) and additional acute diseases but without extracorporeal renal replacement therapy, or in patients with ARF or CRF with additional acute diseases on extracorporeal renal replacement therapy, haemodialysis therapy (HD), peritoneal dialysis (PD) or continuous renal replacement therapy (CRRT), or in patients on HD therapy with intradialytic PN. Patients with renal failure who show marked metabolic derangements and changes in nutritional requirements require the use of specifically adapted nutrient solutions. The substrate requirements of acutely ill, non-hypercatabolic patients with CRF correspond to those of patients with ARF who are not receiving any renal replacement patients therapy (utilisation of the administered nutrients has to be monitored carefully). In ARF patients and acutely ill CRF patients on renal replacement therapy, substrate requirements depend on disease severity, type and extent/frequency of extracorporeal renal replacement therapy, nutritional status, underlying disease and complications occurring during the course of the disease. Patients under HD have a higher risk of developing malnutrition. Intradialytic
PN (IDPN) should be used if causes of malnutrition cannot be eliminated and other interventions fail. IDPN should only be carried out when modifiable causes of malnutrition are excluded and enhanced oral (like i.e. additional energy drinks) or enteral supply is unsuccessful or cannot be carried out.