of erythropoietin. Recombinant human erythropoietin (rHuEPO) is being offered to these children as thrice-weekly or weekly subcutaneous injections and is replacing the need for frequent blood transfusions. The drug corrects the anemia which in turn increases appetite, activity, and general well-being in the children who receive it.

Hypertension may be managed initially by cautious use of a low-sodium diet, fluid restriction, and perhaps diuretics, such as hydrochlorothiazide or furosemide. Severe hypertension requires the use of other antihypertensive agents, singly or in combination.

Intercurrent infections are treated with appropriate antimicrobials at the first sign of infection; however, any drug eliminated through the kidneys is administered with caution. Other complications are treated symptomatically (e.g., central-acting antiemetics for nausea, antiepileptics for seizures, and diphenhydramine [Benadryl] for pruritus).

When the child reaches end-stage renal failure, death will eventually occur unless waste products and toxins are removed from body fluids by dialysis or kidney transplantation. These techniques have been adapted for infants and small children and are implemented in most cases of renal failure after conservative management is no longer effective (see Technologic Management of Renal Failure, later in chapter).

Prognosis

Dialysis and transplantation are the only treatments currently available for children with ESRD. Although children may survive on dialysis, it is not an ideal long-term modality. Complications include infection of access sites, growth failure, and disruption of normal socialization. Many pediatric centers encourage families of children with ESRD to consider kidney transplantation. The North American Pediatric Renal Trials and Collaborative Studies' (2010) annual transplant report documents graft survival of 96% at 1 year and 84% at 5 years for living donor kidneys and 95% at 1 year and 78% at 5 years for deceased donor kidneys.

Post-transplant complications include infection, hypertension, steroid toxicity, hyperlipidemia, aseptic necrosis, malignancy, and growth retardation (Sharma, Ramanathan, Posner, et al, 2013). Long-term graft survival is not guaranteed, and many children