Manifestations of underlying disorder or pathologic condition

Diminished urinary output and lethargy in a child who is dehydrated, is in shock, or has recently undergone surgery should be evaluated for possible AKI.

Nursing Alert

Any of the following signs of hyperkalemia constitute an emergency and are reported immediately:

- Serum potassium concentrations in excess of 7 mEq/L
- Presence of electrocardiographic abnormalities, such as prolonged QRS complex, depressed ST segment, high peaked T waves, bradycardia, or heart block

Therapeutic Management

Treatment of AKI is directed toward (1) treatment of the underlying cause, (2) management of the complications of renal failure, and (3) provision of supportive therapy within the constraints imposed by the renal failure.

Treatment of poor perfusion resulting from dehydration consists of volume restoration, as described in Chapter 22, in treatment of dehydration. If oliguria persists after restoration of fluid volume or if the renal failure is caused by intrinsic renal damage, the physiologic and biochemical abnormalities that have resulted from kidney dysfunction must be corrected or controlled. Initially, a Foley catheter is inserted to rule out urine retention, to collect available urine for analysis, and to monitor results of diuretic administration. The catheter may or may not be removed during the oliguric phase.

The amount of exogenous water provided should not exceed the amount needed to maintain zero water balance. It is calculated on the basis of estimated endogenous water formation and losses from sensible (primarily gastrointestinal) and insensible sources. No allotment is calculated for urine as long as oliguria persists.

When the output begins to increase, either spontaneously or in response to diuretic therapy, the intake of fluid, potassium, and