

and hospitalizations, psychosocial variables and behavior, and total care costs (Clar, Waugh, and Thomas, 2007).

However, a small number of children with diabetes exhibit a degree of metabolic lability and have repeated episodes of DKA that require hospitalization, which interferes with their education and social development. These children appear to display a characteristic personality structure. They tend to be unusually passive and nonassertive and to come from families that are inclined to smooth over conflicts without resolution. Children in this type of setting experience emotional arousal with little, if any, opportunity or ability to resolve it. Other children from psychosocially dysfunctional families display behavioral and personality problems. This emotional stress causes an increased production of endogenous catecholamines, which stimulate fat breakdown, leading to ketonemia and ketonuria.

Hospital Management

Children with DKA require intensive nursing care. Vital signs should be observed and recorded frequently. Hypotension caused by the contracted blood volume of the dehydrated state may cause decreased peripheral blood flow, which can be particularly hazardous to the heart, lungs, and kidneys. An elevated temperature may indicate infection and should be reported so that treatment can be implemented immediately.

Careful and accurate records should be maintained, including vital signs (pulse, respiration, temperature, and blood pressure), weight, IV fluids, electrolytes, insulin, blood glucose level, and intake and output. A urine collection device or retention catheter is used to obtain the urine measurements, which include volume, specific gravity, and glucose and ketone values. The volume relative to the glucose content is important because 5% glucose in a 300-ml sample is a significantly greater amount than a similar reading from a 75-ml sample. A diabetic flow sheet maintained at the bedside provides an ongoing record of the vital signs, urine and blood tests, amount of insulin given, and intake and output. The level of consciousness is assessed and recorded at frequent intervals. The comatose child generally regains consciousness fairly soon after initiation of therapy but is managed like any unconscious