Table 47. Characteristics of Renal Tubular Acidosis

	Type 1	Type 2	Type 3
Renal function?	Normal	Normal	Normal or decreased
Failure to thrive?	Yes	Yes	Yes
Polyuria or polydipsia?	Yes	Yes	No
Potassium level?	Normal or low	Normal or low	Elevated
Bicarbonate leak?	Usually	Significant	Small
Urine maximally acid?	No (pH > 6)	Yes	Yes
Nephrocalcinosis or nephrolithiasis?	Yes	No	No
Fanconi syndrome?	No	Often	No
Osteomalacia or rickets?	Rarely	If Fanconi syndrome is present	No

Table 48. Toxins Removed by Hemodialysis

Toxin	Measured Level Suggestive of Need for Hemodialysis[a]
Acetaminophen	>100 mcg/mL in conjunction with antidote
Arsenic	Only with coexistent renal failure
Bromide	>150 mg/dL and severe symptoms
Chloral hydrate	250 mg/dL
Ethanol	600 mg/dL
Ethylene glycol	50 mg/dL
Isopropanol	400 mg/dL
Lithium	4 mEq/L in acute overdose
	As needed for severe symptoms in chronic overdose
Methanol	50 mq/dL
Salicylates	100–120 mg/dL in acute overdose
	60–800 mg/dL in chronic overdose

[a] The decision to perform hemodialysis should be based on physical findings as well as drug levels. A repeat measure should be obtained when the drug level is elevated to ensure that a laboratory error has not occurred. In addition, units of measure should be checked before instituting hemodialysis.

Table 49. Toxins Removed by Charcoal Hemoperfusion[a]

Toxin	Measured Level Suggestive of Need for Charcoal Hemoperfusion
Amitriptyline	Based on signs and symptoms
Chloral hydrate	250 mg/dL
Digitoxin	50 ng/mL with antidotal therapy
Digoxin	15 ng/mL with antidotal therapy
Ethchlorvinyl	150 mcg/mL
Glutethimide	40 mg/L
Methaqualone	40 mcg/mL
Notriptyline	Based on signs and symptoms
Pentobarbital	50 mg/L
Phenobarbital	100 mg/L
Theophylline	100 mcg/mL in acute overdose
	60 mcg/mL in chronic overdose

[a] The decision to perform hemoperfusion should be based on physical findings as well as drug levels. A repeat measure should be obtained when the drug level is elevated to ensure that a laboratory error has not occurred. In addition, units of measure should be checked before instituting hemodialysis.

Table 50. Normal Values for Fractional Excretion of Sodium (Fe_{Na})

	Prerenal ARF	Intrinsic ARF
Adult or child	<1.0	>2.0
Infant (neonate)	<2.5	>2.5

ARF, acute renal failure.

Table 51. Causes of False-Positive Dipstick Reactions for Urinary Protein

Overlong immersion
Placing reagent strip directly in the urine stream
Alkaline urinary pH (pH >7.0)
Quaternary ammonium compounds and detergents
Pyuria
Bacteriuria
Mucoprotein

Table 52. Drugs that May Cause Hemolytic Anemia in Patients Who Have G6PD Deficiency

Acetanilid
Doxorubicin
Methylene blue
Naphthalene
Nitrofurantoin
Primaquine
Pamaquine
Sulfa drugs

Table 53. Clinical Aids in Distinguishing the Origin of Hematuria

Test For	Glomerular or Renal	Extrarenal
Urine color	Brown, tea or cola colored, cloudy, red	Red, pink
Clots	Usually absent	May be present
RBC casts	Frequently present	Never present
Red cell morphology	Dysmorphic or distorted	Normal RBC shape (eumorphic)
Urine stream	Bloody throughout entire stream	More bloody at initiation (suggesting distal urethral origin) or termination (suggesting trigonitis or cystitis)