Appendix 12
ACUTE KIDNEY FAILURE

Acute kidney failure is a disorder characterized by an abrupt decline in the amount of urine passed. That impairs the kidney's capacity to maintain metabolic balance.

It is important to distinguish acute kidney failure from urinary retention. Urinary retention occurs when the bladder becomes over-full and is common in cases of prolonged unconsciousness, but it may also occur in a conscious casualty. If retention is present, the bladder becomes increasingly distended, with the casualty complaining of pain in the lower abdomen.

Chemical-induced acute kidney failure may be caused directly by a variety of chemicals, including ethylene glycol and halogenated hydrocarbons. In addition, it may occur secondary to shock due to severe chemical burns or chemical-induced bleeding.

Diagnosis

Symptoms and signs include:

- A steady reduction in the amount of urine passed;
- Insert a urinary catheter into the bladder. If there is less than 125 mL of urine in the bladder, or the casualty has not passed urine for more than 6 hours, the casualty is in acute kidney failure.
- Nausea, vomiting, diarrhoea;
- Persistent hiccoughing;
- Fatigue.

RADIO FOR MEDICAL ADVICE. Arrange for evacuation. The casualty will need to be transferred to a shore hospital as soon as possible.

Record casualty's fluid intake and output carefully on a chart as follows (amounts given in mL):

Date and time	Type of fluid	In*	Out		
		Mouth	Urine	Vomit	Other
12/8/96					
11.00	Clear soup	250			
11.15				200	very sweaty for 1 hour
12.00			500	60	
12.30	Milk	125			
13.00				120	runny diarrhoea
14.00	Oral rehydration salt (ORS) solution	180			
17.00	ORS solution	200			
20.00	ORS solution	200			
20.15			20		
23.00	ORS solution	200			
12-hourly balance:		1155	520 + 380		?
			900		
		difference: plus 255 mL (but the casualty lost fluid by sweating and diarrhoea, probably more than 255 mL)			

* Fluid given intravenously or by rectum also counts for input.