

Tikrit University

College of Nursing

Basic Nursing Sciences



Second Year - 2023-2024

Adult Nursing

Urinary Disorders

Prepared by:

Nariman Mohammed Ahmed

Plan for Long-Term Renal Replacement Therapy

1. Encourage treatment adherence.

The following renal replacement therapy options should be discussed with the patient:

- Hemodialysis
- Peritoneal dialysis
- Kidney transplantation

2. Educate the patient about their prognosis and treatment options.

3. Discuss vascular access options.

4. Instruct on peritoneal dialysis..

5. Prepare for a kidney transplant.. Patients with the following conditions may not be eligible for a kidney transplant:

- Older age
- Severe heart disease
- Active or recent cancer
- Dementia
- Severe obesity
- Poor medication adherence
- Current drug or alcohol use
- Limited or no health insurance

Renal Replacement Therapy

Understanding Renal Replacement Therapy in Intensive Care Nursing

When it comes to intensive care nursing, the importance of Renal Replacement Therapy (RRT) cannot be overemphasized. This procedure is a lifesaver for patients suffering from acute or chronic kidney failure. By understanding its basics and types, you'll be better equipped to provide quality care to your patients.

Basics of Renal Replacement Therapy

Renal Replacement Therapy (RRT) is a procedure that substitutes the normal blood-filtering function of the kidneys when they fail.

What is Renal Replacement Therapy?

RRT is a therapeutic intervention, carried out by trained health professionals, that uses a machine to remove waste products and excess water from the body. It is often employed when the kidneys are unable to fulfil this function in situations such as acute kidney injury (AKI) or end-stage renal disease (ESRD).

For instance, patients in advanced stages of kidney diseases may have elevated levels of creatinine in their blood, which could result in complications like high blood pressure and fatigue. In such cases, RRT performs the function of filtering the blood and maintaining the right balance of substances in the plasma.

Types of Renal Replacement Therapy

Based on duration and urgency, Renal Replacement Therapy can broadly be classified into two types:

- Acute Renal Replacement Therapy
- Chronic Renal Replacement Therapy

Acute Renal Replacement Therapy

Acute Renal Replacement Therapy (ARRT) is intended for patients who have suddenly lost their kidney functions. This could be as a result of an accident, a surgery, or even an unexpected health condition.

Chronic Renal Replacement Therapy

Chronic Renal Replacement Therapy (CRRT), on the other hand, is reserved for patients whose kidneys are unable to function properly over a long period of time. This could be due to chronic diseases like diabetes and hypertension.

Comparison Between Renal Replacement Therapy and Dialysis

Both procedures serve the same purpose: to filter the blood when the kidneys can't. However, they're not exactly the same.

Renal Replacement Therapy

Dialysis

Can be used in acute or chronic kidney failure

Often used in end-stage renal disease (ESRD)

Can be conducted in Intensive Care Units Performed in dialysis centres or at home

Complications of Renal Replacement Therapy

Though CRRT is crucial in managing kidney dysfunction in critically ill patients, it's important to note that any invasive therapy carries potential complications.

Common Complications and Their Management

While complications can arise, understanding what to look for and how to manage them is key. These can include:

- Bleeding due to anticoagulation
- Electrolyte imbalances, including hypokalaemia or hyperkalaemia
- Infections due to catheter placement
- Fluid overload or underload

Effective management often centres on diligent monitoring, early detection of complications, and readdressing parameters of the therapy as needed.