### Introduction to Nephrology (Study of Kidneys)

Twenty million Americans (one in nine adults) suffer from chronic kidney disease (CKD), and another 20 million are at risk. The majority of kidney disease in the United States is caused by poorly-treated diabetes and high blood pressure. Half of the people who have advanced CKD don’t even know it. If a patient has CKD and doesn’t know and it goes untreated, it can lead to serious health problems, including end-stage renal disease (ESRD) requiring dialysis (pumping blood through a machine that works like a kidney) or replacement of the kidney (transplant). There are 350,000 Americans who have ESRD. Unless they receive a kidney transplant, they must receive dialysis therapy for the rest of their lives. Many aspects of kidney disease can cause poor quality of life for these patients.

### What a Pharmacist Provides

Pharmacists have important roles in the treatment of patients with kidney disease. Pharmacists make sure that all doses of medications are properly adjusted for the patient’s degree of kidney disease. Patients with kidney disease often have other serious medical conditions such as high blood pressure and diabetes. Because of these other diseases and the kidney disease itself, these patients are often on many medications, sometimes more than 10 different medications per day. Pharmacists have an important role in helping patients manage their various medications.

In the hospital setting, pharmacists are essential to assist in the medication management of any acute issues the patient is experiencing. Patients who are in the hospital may also suffer from acute kidney failure as a result of their current medical issues or treatments. Pharmacists adjust medication doses and therapy for these acute kidney failure patients to design the safest and most cost effective medication regimen.

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