Kidney disease in its early stages is often asymptomatic. It is important for high-risk individuals to be tested regularly to reduce the progression of kidney disease and ultimately reduce the need for dialysis.

Patients may present with:
- Asymptomatic hematuria or proteinuria noted on UA, or elevated serum creatinine, or
- Symptoms suggestive of renal disease including: edema, gross hematuria, systemic symptoms such as anorexia, nausea and vomiting, pruritis and pericarditis, or
- Either acute or chronic renal disease

**DID YOU KNOW:**
- Previously 50% of new dialysis patients in Manitoba presented acutely requiring urgent dialysis. Recently that number has decreased to approximately 30% perhaps related to the recent emphasis on early identification.
- Late referral increases the patients' morbidity (with increased pulmonary edema, acidosis, temporary access and prolonged hospitalization).
- Late referral also negates any opportunity to have prevented kidney failure or at least attenuated the rate of decline.
- Late referral prevents appropriate renal replacement therapy planning that includes preemptive transplant (i.e. before ever being dialysed), elective creation of vascular access and initiation of hemodialysis or commencement of peritoneal dialysis. Patients with end stage renal disease should be started on replacement therapy before they become symptomatic.

- Approximately 40% of patients starting dialysis have diabetes as the underlying etiology, but diabetes is also associated with an increased incidence of non-diabetic kidney disease.
- Many of the remaining 60% of new dialysis patients may have had asymptomatic kidney disease that if identified earlier may have been prevented.

Although there are clinical symptoms associated with renal failure, people who have kidney disease are frequently asymptomatic.
Kidney disease and the requirements for renal replacement therapy (dialysis or transplant) continue to increase at an alarming rate. Manitoba has the highest prevalence and incidence in the country. The number of dialysis patients in Manitoba has tripled over the last decade.

**BY EARLY IDENTIFICATION OF PATIENTS WHO MAY BE AT RISK FOR DEVELOPING KIDNEY DISEASE, YOU CAN PREVENT KIDNEY DISEASE AND PROGRESSION TO END STAGE RENAL DISEASE (ESRD).**

Kidney Disease: Patients with intrinsic renal disease with normal or supernormal renal function that may be at risk for progression to renal failure. This includes various chronic glomerulonephropathies (e.g., diabetic nephropathy, IgA nephropathy, glomerulosclerosis) and non-glomerular disease (i.e., PCKD, obstructive uropathy).

Renal Failure: Kidney disease associated with declining function (as determined by decreasing creatinine clearance).

ESRD (End Stage Renal Disease): The point at which renal replacement therapy, dialysis or transplant is required.

Patients with the following problems may be at high risk for developing kidney disease or failure:

- Diabetes Mellitus
- Hypertension
- Cardiovascular Disease
- Urinary tract abnormalities including reduced renal mass
- Family history of kidney disease
- Known systemic autoimmune disorders such as SLE
- Excessive use of known toxins such as analgesics (NSAIDs), lithium and others
- Symptoms suggestive of a systemic illness

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**Chronic Kidney Disease (CKD) Stages**

Chronic kidney disease is defined as kidney damage for at least 3 months, as defined by structural or functional abnormalities of the kidney, with or without decreased GFR. Without intervention, once kidney function begins to decline it may do so in a progressive downhill fashion. It is useful to divide the decline into stages. These CKD stages have been designated numerically from 1 to 5. The clinical relevance of this progression is the therapeutic focus or goal changes with the downward progression traversing through Four Therapeutic Zones each represented by colours.

**MRP Renal Management Guidelines**

The W-HA Manitoba Renal Program has developed guidelines to help manage high-risk patients. These guidelines are recommended for patients that may require nephrologic care or assessment, and are evidenced based where possible. Where evidence was lacking, these recommendations are opinion based and derived by consensus from a panel of Manitoba nephrologists and family physicians.

Non-dialysis nephrology care is provided through the Renal Health Outreach (RHO). The RHO is a component of the Manitoba Renal Program (MRP) responsible for renal health promotion, disease prevention, and management through education and clinical care for all of Manitoba.

Patients may require nephrologic care or assessment to:

- Determine etiology of presumed renal abnormality
- Determine their risk for progressive renal failure, and/or
- Prepare them for end stage renal care management

While it is best to identify high-risk patients early, they may present with acute abnormality or at various stages of chronic kidney disease where both focuses of investigations and therapies may be different.