NWT Clinical Practice Information Notice

Upon receipt, please file this notice in
Section C, Clinical Practice Information Binder for future reference.

The following clinical practice has been approved for use in the Northwest Territories Health and Social Services system, and has been distributed to:

X	Hospitals	**X**	Community Health Centres		Homecare		LTC		Pharmacists
X	Doctor's Offices		Social Services Offices	**X**	Public Health Units		Please list other(s):		

The information contained in this document is a Departmental:

	Policy	X	Clinical Standard		Protocol		Procedure	**X**	Clinical Practice Guideline

Title: Chronic Kidney Disease Clinical Practice Guidelines

Effective Date: May 2017
This CPI replaces and supersedes the previous *Chronic Kidney Disease Clinical Practice Guidelines* dated September 15, 2012, page 109.

Statement of approved Clinical Practice:

The NWT Clinical Standards Steering Committee has endorsed the revision of the NWT Chronic Kidney Disease (CKD) Clinical Practice Guidelines as the standard for primary care detection and management of chronic kidney disease in the NWT.
As CKD has a significant impact on NWT residents and health services, these guidelines have been developed to ensure that all primary care providers are detecting and planning client care in a consistent way across the NWT. This establishes a minimum standard of care and supports the provision of quality management and follow-through for renal care clients.
The NWT Renal Program will be the single point of entry for all CKD referrals. Once received, referrals will be triaged according to clinical practice guidelines adopted from the Northern Alberta Renal Program (NARP) and forwarded appropriately.

Attachments:
NWT Chronic Kidney Disease Clinical Practice Guidelines May 2017

An electronic copy of this notice is also available on the Department of Health and Social Services public website at: http://www.professionals.hss.gov.nt.ca/document-categories/clinical-practice-information-notices.

This clinical practice is approved. Original Signed by DM (May 1, 2017)

(signature) (date)

Minister ☐ **Deputy Minister** ☑ **Chief Public Health Officer** ☐

Chronic Kidney Disease in the NWT

Classification of the Stages of Chronic Kidney Disease (CKD)

CKD Stage	CKD is defined as the presence of kidney damage for more than three months.	Glomerular filtration rate is estimated (eGFR) or measured (GFR) in mLs/min/1.73m^2
1	Normal or increased GFR	≥ 90
2	Mildly decreased GFR	60 - 89
3	Moderately decreased GFR with or without other evidence of kidney damage	3A) 45 - 59 3B) 30 - 44
4	Severely decreased GFR	15 - 29
5/5D	End stage or approaching end stage kidney failure	< 15

Chronic Kidney Disease

1. A GFR of <60mL/min/1.73m2 is considered abnormal for all adults
2. A GFR >60mL/min/1.73 m2 is considered abnormal if accompanied by urine sediment, abnormal biopsy or imaging tests, genetic or congenital defects., e.g. APKD.
3. GFR is less accurate for patients over age 75.
4. The suffix "p" denotes the presence of proteinuria when staging CKD, e.g. stage 3p.
5. The suffix "D" indicates dialysis, e.g. stage 5D.

Identify Patients with Elevated Risk of CKD

- Patients with diabetes[1]
- Patients with hypertension[2]
- Family history of renal disease[3]
- First Nations peoples[4]
- Patients on chronic NSAIDs[5]
- Patients with autoimmune disease[6]
- Patients with vascular disease[6]
- Patients with unexplained anemia[6]
- Patients with heart failure[6]
- Patients with edema[6]

- **Screen at-risk patients annually with eGFR and urine Albumin to Creatinine Ratio (ACR)**
  - **If urinalysis, ACR and or PCR is abnormal, repeat sample in two months**

[1] Initiate screening of Type I five years after diagnosis; for Type II at diagnosis.

[2] Initiate screening at diagnosis and upon initiation of therapy.

[3] Initiate screening when a patient reaches the age of onset in the family member with CKD.

[4] First Nations adults are considered an at risk population. Screen every one to two years as indicated.

[5] Patients on chronic NSAIDs are at increased risk. Screen annually as indicated.

[6] Include renal function tests as part of an initial investigation and routine surveillance for this condition.

Government of Northwest Territories
Gouvernement des Territoires du Nord-Ouest

CKD Detection and Referral

Stage 1 – 2: GFR >60

Annual workup:

- Urinalysis; if protein is present order urine protein electrophoresis (UPEP) and serum protein electrophoresis (SPEP)
- CBC, electrolytes and GFR
- Serum albumin, Cr and ACR ratio
- Lipid profile
- Monitor for progressive disease, decreased GFR, persistent significant proteinuria
- Implement management measures

Refer to Renal Program if urinalysis is **persistently abnormal** (proteinuria or >5 RBC on two consecutive urinalysis tests). If abnormal, repeat sample in two months.

Stage 3: GFR 3A) 45 – 59 | 3B) 30-44

Work up:

ALL tests in Stage 1-2 PLUS:

- Ca, Mg, PO4
- BUN, PTH, ALP
- Serum iron and ferritin if anemic
- UPEP and SPEP
- Renal ultrasound*

*** Refer to Renal Program with results of investigations**

Stage 4: GFR 15 – 29

Work up: Same as Stage 3

Refer to Renal Program immediately with results pending

Stage 5: GFR <15

Urgent referral to Renal Program Nurse Practitioner during business hours or Internal Medicine on-call after hours via the switchboard.

Phone: 867-669-3100
Fax: 867-669-4139
After hours: 867-669-4111

Management

MODIFY risk factors

- Lifestyle modification
- Dietary counselling
- Smoking cessation
- Treat cholesterol and other cardiovascular risk factors
- Optimize blood glucose control in patients with diabetes

MINIMIZE further kidney injury

- If GRF<60, avoid nephrotoxins such as NSAIDS, aminoglycosides, IV contrast
- If contrast is necessary consider prophylactic measures
- Assess use of medications excreted by the kidney such as metformin and digoxin
- Assess for medications used in CKD management such as calcitriol and ESAs

MEASURES to slow rate of CKD

- Treat HTN to target BP:
  - <140/90 for non-diabetic, non-proteinuric CKD
  - <130/80 for non-diabetic, or diabetic with urine albumin >30mg/day
- ACE inhibitors **or** ARBs are first-line therapies in patients with albuminaria or proteinuria, under the guidance of nephrology or internal medicine
- Monitor K, Cr and GFR to prevent severe hyperkalemia

Referral Process

Complete the current NWT Specialist Referral Form.

- Attach the results of any completed investigations.
- Note if results are pending for any investigations.
- **Please notify the Renal Program of any upcoming appointments so they can coordinate consultation appointments.**

All referrals are to be faxed to the Renal Program at Stanton Medical Centre:

- Fax: 867-669-4139
- Phone: 867-669-4122

IMMUNIZATIONS up to date

- Review routine immunizations and vaccinate in consultation with attending specialist and/or the Office of the Chief Public Health Officer