VALLEY MEDICAL LABORATORIES
OKANAGAN CLINICAL LABORATORIES

SUMMARY OF GUIDELINES AND PROTOCOLS IMPACTING COMPLETION OF REQUISITIONS

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The Guidelines and Protocols are developed by a joint committee of the BCMA and MSP, and are reviewed by a large number of practicing physicians before initial publication or periodic update. This summary is intended to serve as a practical aid to physicians and their assistants in the best utilization of laboratory tests that come under various guidelines or protocols that the laboratory is required to follow. Full guidelines and new developments are available at http://www.bcguidelines.ca/gpac/index.html

Chronic Kidney Disease - Identification, Evaluation, and Management

The information below is based on the October 2014 BC chronic kidney disease guideline for adults ≥ 19 years of age.

Diagnosis and Screening: At-risk populations (diabetes, hypertension, CVD, family history, high-risk ethnic groups) should be screened every 1-2 years depending on clinical circumstances (e.g. annually for people with diabetes) using eGFR, urinalysis, and ACR. Age alone is not a reason for screening.

The guideline offers two grids (Figures 2 & 3, combined here) for referral decision making based on results of eGFR and ACR, as well as recommendations for repeat testing frequencies (in brackets).

In addition to the referral and follow up recommendations based on eGFR and ACR, the guideline notes that:

1. **Abnormal results should be confirmed by repeat testing**
2. Abnormal urinalysis (persistent WBC's or RBC's in the absence of infection or instrumentation, cellular casts, or combinations thereof) indicate abnormal kidney function, either as an isolated condition or as a feature of systmic disease.
3. Hyaline casts are normal and do not indicate pathology.

eGFR Categories: Description and range (mL/min/1.73m²)				Urine ACR categories: Description and range (Annual frequency of repeat testing)		
				A1	A2	A3
				Normal to mildly increased	Moderately increased	Severely increased
				<3 mg/mmol	3-30 mg/mmol	>30 mg/mmol
	G1	Normal or high	≥ 90	(1 if CKD or high-risk)	Monitor (1)	Refer* (2)
	G2	Mildly decreased	60-89	(1 if CKD or high-risk)	Monitor (1)	Refer* (2)
	G3a	Mild to moderately decreased	45-59	Monitor (1)	Monitor (2)	Refer (3)
	G3b	Moderately to severely decreased	30-44	Monitor (2)	Monitor** (3)	Refer (3)
	G4	Severely decreased	15-29	Refer* (3)	Refer* (3)	Refer (4+)
	G5	Kidney failure	<15	Refer (4+)	Refer* (4+)	Refer (4+)

Notes: This figure is designed to reflect the risk of progression by intensity of colouring, with green boxes as lowest risk stage and bright red boxes as highest risk stage. Monitoring and referral is dependent on clinical situation. Individual circumstances will dictate referral or monitoring decision.

* Referring clinicians may wish to discuss with their nephrology service depending on local arrangements for monitoring or referring.

** The instance of monitoring in red box (A2 and G3b) is not an error. While an admittedly high risk box may not warrant specialist intervention. If in doubt, telephone consultation with a nephrologist or internist is recommended.

Management: Although management must be individualized, the guideline does include recommendations based on staging, modified here from guideline. For more information, please refer to the full guideline.

Stage	Recommendations	Other
	Urine ACR Creatinine / eGFR Blood Pressure **Every 1-2 years**	(If high risk group)
Monitor	**Annual review**	See management advice in guideline Determine cause of CKD Consider Renal Ultrasound Urologist referral for isolated hematuria (*not discussed in guideline) Nephrologist/Internist referral if: • ACR increasing or eGFR declining >10% annually, or • Serum K+ repeatedly >6.0 mmol/L
Monitor	**Every 6 months**	
Refer	**Every 4 months OR Refer to Nephrology**	See management advice in guideline Nephrologist/Internist referral recommended
Monitor	**Every 4 months**	See management advice in guideline. Consider telephone consultation.
Refer	**Refer to Nephrology**	See management advice in guideline

Guide to BC Guidelines / Protocols / Billing Rules

Test	Requirements	Completing the Requisition
HEPATITIS TESTING ≥ 15 months	Check off boxes are available to order tests based on suspected diagnosis. (The requisition details the tests done for any tick-box.)	**Use the tick-boxes, or order specific tests in the "OTHER TESTS" area of the requisition.** **Please do not order:** **"Hep B", or "Hepatitis Screen"** as these give the lab no direction regarding what specific tests are required. (Any clinical information that you can provide is of assistance to the laboratory in selecting the most appropriate tests.)
Further hepatitis information: Details about testing for immunity to hepatitis are included in the full protocol and guideline, and are too extensive to include here. Generally, determination of immunity pre or post vaccination is discouraged as unnecessary.		
CRP, ESR	Clinical indication required.	Order one only, and include clinical indication. If both ordered, only CRP will be done. (MSP rule)
PSA TESTING	PSA testing is an insured service only when prostate cancer is suspected or known to exist.	Tick the appropriate box on the requisition. If self-pay, please inform the patient that payment will be required.
TSH, FREE T4 ≥ 17 yrs	To request more than one of these tests, justification is required.	Write the tests required in the "**OTHER TESTS**" area **and** the justification in the "**DIAGNOSIS / CLINICAL INFORMATION**" area. (e.g. "hyperthyroid?" or "discordance between TSH and clinical status")
FREE T3 ≥ 17 yrs	**Measurement of Free T3 is rarely indicated,** and should be reserved for situations such as: • T3 replacement therapy (e.g. Cytomel ®) • where hyperthyroidism is suspected (suppressed TSH), but the Free T4 is not elevated.	Write the test required in the "**OTHER TESTS**" area, **and** appropriate information in the "**DIAGNOSIS / CLINICAL INFORMATION**" area.
H. PYLORI BREATH TEST ≥ 19 yrs	**Recommended** for those with any of: • recurrent ulcer-like dyspepsia, • previously confirmed (< 5 years) peptic ulcer disease if not previously treated for H. Pylori, • current proven active peptic ulcer disease. **Not recommended** for confirmation of eradication unless complicated (e.g. hemorrhage, perforation), and not before 4 weeks after completion of therapy.	**Test Must Be Booked At Laboratory.** **Please have the PATIENT call the laboratory for an appointment and instructions.**
GENITAL SAMPLES 13-70 years	What the lab does is determined by the site sampled, the specimen received, and the clinical information provided.	**The ordering physician must clearly indicate the site of origin and the clinical condition for each specimen.**

INFECTIOUS DIARRHEA > 3 yrs
(The guideline does not apply to immunocompromised patients or to outbreaks of infectious diarrhea.)
	Use the "**DIAGNOSIS / CLINICAL INFORMATION**" box of the requisition to indicate:
	• severity and duration of diarrhea
	• other clinical features to justify testing (e.g. "bloody stools", recent antibiotic use, risk of parasitic infection, etc.)
	Severe Diarrhea
	(Any of: fever ≥ 38.5⁰ C, bloody stools, profound systemic illness/toxicity, hemodynamic instability, more than 6 diarrheal episodes per day for more than 5 days)
	Request and provide separate samples for:
	C&S (single sample) / **C. difficile testing** (single sample) / **O&P testing if indicated** (1 or 2 samples)
	(If an outbreak of viral gastroenteritis is suspected, consult the local Medical Health Officer, and if appropriate, submit one sample for viral pathogens.)
	Mild to Moderate Diarrhea
	(No 'severe' criteria)
	Most cases are viral and self-limited, and do not require investigation unless there are public health concerns. Appropriate investigation will be determined by clinical factors and duration of diarrhea:
	Mild to Moderate Diarrhea, Duration ≤5 days:
	• Recent antibiotic use (<3 months):
	  • Consider *C. difficile* testing
	  • C&S not recommended unless public health concerns
	• No recent antibiotic use:
	  • No investigation unless public health concerns
	Mild to Moderate Diarrhea, Duration >5 days:
	• Stool culture
	• Consider *C. diff* testing. More worthwhile if any of: Recent antibiotic use, recent hospitalization, bloody stool, resident of long-term care facility
	• O&P testing if clinically indicated	