Interim Practice Changes for Urine Cultures in Response to COVID-19 Workload: Step 2

November 3, 2020

This information applies to: *Island Physicians, Nurse Practitioners and Joint Response Team Leaders*

Please refer to our step 1 communique from July 17, 2020 on clinical practice changes as it involves urine, wound, and sputum cultures. Cultures are routinely NOT necessary for most outpatient ailments when empiric therapy can be provided. Urine cultures requests over the previous 2 months are down 10 percent from historical baseline. The goal stated in the July communique was 20 percent. Nevertheless, our workflow continues to increase for both COVID and almost all Microbiology testing. The laboratory will respond with the following interim measures focused on urine culture changes:

a. Urine cultures from urologists or those with special processing factors will be worked up as per usual workflow. Pregnancy is an exception and should continue to be always noted on the request form.

b. The following comment code will be added to all positive urines in adult patients in regards to asymptomatic bacteria in the urine (bacteriuria):

"Positive culture results without symptoms can occur up to 27% of the time routinely, and up to 50% of the time in the senior population. Foul smelling/cloudy urine is NOT considered a symptom of a urinary tract infection. For educational tools please see https://choosingwiselycanada.org/ or www.ammi.ca/AntibioticAwareness."

c. Most importantly, **outpatient** urine cultures for *E.coli*, *Enterococcus spp*, and *Proteus mirabilis* will have susceptibility testing only available upon request. Exceptions will be Long-term care LTC (when marked), pregnancy, or children under 12. These three organisms encompass 88% of all of our Urine cultures. These organisms are easy to identify, and they have predictable antibiograms for which to start empiric therapy. (See next page) Attention to previous antibiotics use in the past 3 to 6 months is also helpful. Cultures will be held for 5 days in the event susceptibility is required (patient did not respond to therapy; there is an unavoidable allergy). Please also note that with our Penicillin allergy management algorithm cefuroxime can almost always be used for a penicillin or cephalexin allergy. In order to keep phone lines open, please use the fax number QEH 902-894-2120 or PCH 902-438-4281 to request antibiotic testing.

Please continue to use laboratory derived urinalysis to assist with determining if an infection is likely. If there is no or trace leukocytes then infection is very unlikely. If there is presence of leukocytes then infection is possible, however without specific symptoms this alone is insufficient to warrant treatment in most cases. Please also refer to www.ammi.ca/AntibioticAwareness for tools on patient/resident hydration.

These changes were reviewed with front line physician leaders. The impact(s) of these changes will be reviewed no later than April 2021. Thank you for your ongoing assistance with the care of our patients and our laboratories response to the COVID-19 pandemic. Dr. German can be reached at 902-894-2515 or through QEH Switchboard 902-894-2111.

Top Three URINE Isolates 2019 (88% of all Urines)	Total Number	Fosfomycin*	Nitrofurantoin*	Co-trimoxazole	AmpIV/AmoxPO	Amox+Clav (tid)	Cephalexin`	Cefuroxime	Cefixime	Ciprofloxacin	Ceftriaxone	Ceftazidime	Ertapenem	Piperacillin+Tazo	Tobramycin	Vancomycin IV or Linezolid PO/IV
E. coli	3610	**98**	**97**	**84**	**64**	**88**	**69**	**~75**	**93**	**88**	**95**	**97**	**100**	**98**	**94**	
Proteus mirabilis *(90% of all Proteus spp.)*	299			**81**	**86**	**99**	**95**	**~96**	**98**	**98**	**98**	**99**	**100**	**99**	**91**	
Enterococcus spp. (90% are *E. faecalis*)	518	**90%**	**94**		**92**	**92**				**41**				**92**		**100**

*Nitrofurantoin and Fosfomycin activity limited to cystitis and suitable for use with adequate renal function (CrCl ≥30 mL/min)
Shaded boxes = Not routinely reported or recommended.

`Cephalexin for acute cystitis likely to approach 75 to 80%

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