

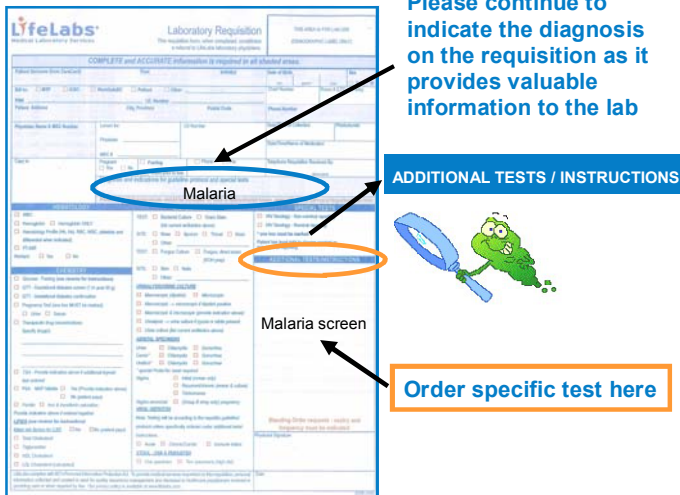
## Dr. Q's Question of the Month

How do I investigate thalassemia and is the test available at LifeLabs?



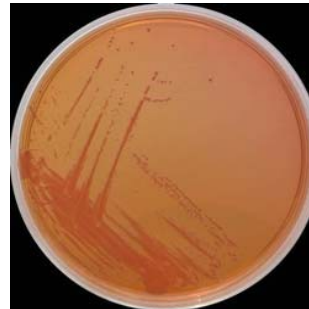
## Ordering Lab tests not listed on the requisition form

If you want to order a lab test that is not listed on the requisition form e.g. *Malaria screen*, please ensure that you **write the specific test on the requisition form under Additional Tests / Instructions** (see below). Indicating the diagnosis e.g. *Malaria* is not sufficient as MSP guidelines require physicians to specifically order the test on the requisition form.



## Sputum C&S orders on Cystic fibrosis patients

When ordering sputum cultures on Cystic fibrosis patients, please indicate Cystic fibrosis on each requisition form with a sputum C&S request. This information will help to ensure that the sample is optimally processed.



*Burkholderia cepacia*, a pathogen in cystic fibrosis patients, growing on MacConkey agar. This organism requires special culture media (in addition to the media used for routine sputum C&S) to ensure optimal recovery.

## Newsletter by e-mail **New!**

If you would prefer to receive this Newsletter by e-mail as a PDF, please contact the Associate Editor at [jan.palaty@lifelabs.com](mailto:jan.palaty@lifelabs.com). You will not receive any other notices or publications from us and your e-mail address will not be shared with any other organization.

## Answer to Dr. Q's Question

Thalassemia is a group of genetic disorders that presents with variable degrees of anemia, hypochromic microcytosis and usually normal or even elevated ferritin.

Testing for thalassemia is performed at LifeLabs. The initial screening tests include a hematology panel (CBC), blood film examination (morphology), hemoglobin H body preparation and high performance liquid chromatography (HPLC). These are usually sufficient to diagnose beta thalassemia. Molecular tests are done where indicated to identify and/or to confirm alpha gene deletions.

Thalassemics who are pregnant or planning to become pregnant should have their partners tested. If the partner is positive, genetic counseling is recommended to prevent major problems and/or fetal loss due to hydrops fetalis.

Clinical information, including ethnicity and family history, is very valuable in the interpretation of the hemoglobin analysis and results in faster reporting.

*Dr. Suseela Reddy, Hematopathologist*

## Collection of urine specimens from indwelling catheters

Please remind your patients with standing orders for urine C&S, as well as their caregivers, **not to collect** the sample **from the urine bag** because:

- Microbiological information reported on a urine (bag) sample is unhelpful / misleading, and
- If mixed flora is reported, leads to a request for a properly collected specimen and as a result, potentially delaying treatment.

Urine **should be collected from the catheter collection port** after cleansing the port with 70% alcohol.

The following antibiograms are profiles of antimicrobial susceptibility testing results of the most commonly reported respiratory tract, skin and soft tissue and urinary tract pathogens submitted to LifeLabs. The information in the antibiograms is to be used only as a guide, and we emphasize that culture and susceptibility testing are required for accurate determination of etiology and antimicrobial susceptibility.

### Respiratory Tract Pathogens

ORGANISM	Number of isolates tested	ANTIBIOTIC (% susceptible)									
		Ampicillin	Azithromycin	Cefuroxime	Clarithromycin	Erythromycin	Gentamicin	Levofloxacin	Penicillin	Tetracycline	TMX*
<i>Haemophilus influenzae</i>	315	86		99	96				R	98	83
<i>Streptococcus pneumoniae</i>	161	83	52		52	52		R	99	83	61
<i>Moraxella catarrhalis</i> <sup>1</sup>	160								R		

<sup>1</sup>Susceptibility testing for *Moraxella catarrhalis* is not routinely performed. Most clinical isolates of *M. catarrhalis* are resistant to amoxicillin but are generally susceptible to amoxicillin-clavulanate, macrolides, trimethoprim-sulfamethoxazole, quinolones, cefuroxime, cefixime, and ceftriaxone.

### Skin and Soft tissue Pathogens

ORGANISM	Number of isolates tested	ANTIBIOTIC (% susceptible)													
		Ampicillin	Azithromycin	Ceftriaxone	Cephalothin/Cephalexin	Ciprofloxacin	Clarithromycin	Clindamycin	Cloxacillin	Erythromycin	Levofloxacin	Penicillin	Tetracycline	TMX*	Vancomycin
Streptococcus group A	193	100	89	100	**		89	88		89	100	100		R	100
<i>Staphylococcus aureus</i> (MSSA)	5621				100				100	78			94		
<i>Staphylococcus aureus</i> (MRSA)	2508	R		R	R	7		66	R	8		R	92	95	100

**Please note:** Antimicrobial susceptibility testing for Streptococcus group A is not routinely performed but was performed at physician's request.

\*\* Streptococcus group A isolates that are susceptible to penicillin can be considered susceptible to cephalothin/cephalexin.

MSSA = Methicillin-susceptible *Staphylococcus aureus*; MRSA = Methicillin-resistant *Staphylococcus aureus*

### Urinary Tract Pathogens

ORGANISM	Number of isolates tested	ANTIBIOTIC (% susceptible)								
		Ampicillin	Cephalothin/Cephalexin	Ciprofloxacin	Gentamicin	Nitrofurantoin	Tetracycline	TMX*	Ceftazidime	Piperacillin
<i>Escherichia coli</i>	22939	60	65	81	92	95	73	76		
<i>Enterococcus</i> spp.	3091	99.5	R	74		97	20	R	R	
Streptococcus group B <sup>1</sup>	2464				R			R		
<i>Klebsiella pneumoniae</i>	2000	R	95	96	99	28	89	93		
<i>Proteus</i> spp.	1254	70	83	83	94	R	R	75		
<i>Staphylococcus saprophyticus</i> <sup>2</sup>	841									
<i>Pseudomonas aeruginosa</i>	370	R	R	82	95	R	R	R	93	98
<i>Staphylococcus aureus</i> (MSSA)	300		100	69		98	97	97		

<sup>1</sup>Antimicrobial susceptibility testing is not routinely performed on urine isolates of Streptococcus group B because such infections usually respond to antibiotics commonly used to treat uncomplicated urinary tract infections, such as ampicillin, cephalosporins and nitrofurantoin. Susceptibility to fluoroquinolones is variable.

<sup>2</sup>Antimicrobial susceptibility testing is not routinely performed on urine isolates of *Staphylococcus saprophyticus* because such infections usually respond to antibiotics commonly used to treat uncomplicated urinary tract infections, such as trimethoprim-sulfamethoxazole, nitrofurantoin and fluoroquinolones.

	90-100% of isolates are susceptible to the antibiotic indicated ( <b>GOOD CHOICE</b> )
	21-89% of isolates are susceptible to the antibiotic indicated ( <b>INTERMEDIATE CHOICE</b> )
R	0-20% of isolates are susceptible to the antibiotic indicated ( <b>POOR CHOICE</b> ) The organism is inherently resistant to the antibiotic indicated OR is not recommended due to poor clinical response and/or poor activity
	Antimicrobial susceptibility testing not performed

\*TMX = Trimethoprim-Sulfamethoxazole

Dr. Colette Pienaar, Medical Microbiologist