



**PARTICIPANT STATISTICS**

Specimen 1 - Urine - 78 year old Female, Foley catheter

Organisms	Extent	1	2	3	4	5
767 <i>Citrobacter</i> sp.; NOS				2		
769 <i>Citrobacter freundii</i>			2		1	
777 <i>Corynebacterium</i> sp.; NOS						1
922 Neg for Grp A strep screen by culture		1				
943 Aerobe found; but referred for ID		14				
993 Growth of gram-negative organisms		7				
TOTAL PARTICIPANTS		22	4		2	

Flagging appears for failure to report 767, 769, 922, 943, 983, 985, 987 or 993.  
 In addition to the required organism, participants in all extents may report 777.

This urine specimen contained *Citrobacter freundii* and the diphtheroid, *Corynebacterium* sp. The rule for 4 decades has been "four days on a Foley yields 100% urinary tract infections." If the patient is on antibiotic therapy or prophylaxis, and the collection bag is kept below the pelvis, the results can be much improved if not eradicated. Lab monitoring is needed to detect an increase or change of organisms in subsequent specimens. The sooner the removal of the Foley, the better the patient outcome.

*C. freundii* is an H<sub>2</sub>S-producing close cousin of *E. coli* and thus mimics salmonellae while lacking the virulence. It has probably been blamed for more disease than it is capable of causing because it's common, and when no pathogenic bacteria are seen and you have a viral cause, or a drug-induced symptomatology, *C. freundii* as the only recognizable agent present is blamed. It can easily be the pathogen in a debilitated patient with a Foley-caused bladder blockage.

Citrobacters are citrate-positive, H<sub>2</sub>S-positive enterics, but *C. freundii* is indol-negative, *C. diversus* is indol-positive, their mimics, salmonellae are lysine-positive and protei are phenylalanine-positive. Kits ID them easily.

Specimen 2 - Urine - 65 year old Male, Foley catheter

Organisms	Extent	1	2	3	4	5
777 <i>Corynebacterium</i> sp.; NOS						1
791 <i>Enterococcus</i> sp.; NOS				1		
792 <i>Enterococcus faecalis</i>			2		1	
922 Neg for Grp A strep screen by culture		1				
943 Aerobe found; but referred for ID		15				
994 Growth of gram-positive organisms		7		1		
TOTAL PARTICIPANTS		23	4		2	

Flagging appears for failure to report 791, 792, 922, 943, 985 or 994.  
 In addition to the required organism, participants in all extents may report 777.

This urine produced Gp. D *Enterococcus faecalis* and *Corynebacterium* sp. Elderly bedridden patients commonly end up lying in their own urine because of lack of personnel to get them to the commode, or lack of diapers (expense). Urinary tract infections result. Treatment is more expensive than prevention. Drinking cranberry juice is a cheap preventive measure.

Gp. D *Streptococci* sp. are not all enterococci; only *S. faecalis* and *S. faecium* are. *S. avium* and *S. durans* are non-enterococci. The enterococci are the virulent ones because they cause subacute bacterial endocarditis (SBE), a life-threatening disease with minimal symptoms mainly a low-grade fever and heart-murmur, easily overlooked. Untreated UTI with this organism may be fatal. Enterococci are antibiotic resistant and require multiple antibiotic therapy. Non-enterococci do not. All Gp. D will type quickly in A-G typing kits. All will grow on bile-esculin agar but enterococci grows in 6.5% salt broth. *S. bovis* does not. Many kits are available for ID of all streptococcus groups. Report STAT.

Specimen 3 - Urine - 74 year old Male, incontinency

Organisms	Extent	1	2	3	4	5
799 <i>Escherichia coli</i>				2		1
943 Aerobe found; but referred for ID		10				
949 No aerobic growth		5				
993 Growth of gram-negative organisms		4		1		
994 Growth of gram-positive organisms		1				
TOTAL PARTICIPANTS		20		3		1

Flagging appears for failure to report 798, 799, 943, 987 or 993.  
 In addition to the required organism, participants in all extents may report [no additional codes].

**THROAT/URINE CULTURE**

**SECOND QUADRIMESTER 2016**

This urine had *Escherichia coli*. This veteran of many UTIs has the usual *E. coli* pathogen. Bedridden patients, even diapered, frequently go long periods without changing and that is as effective a cause of a UTI as the Foley catheter. The flat dry dark-centered colony with the green-sheen of eosin ppt. on EMB is readily IDed by indole and lactose/ONPG positives, and negative to cytochrome oxidase. Kits, more expensive and slower than spot tests, are accurate for *E. coli*.

Specimen 4 - Throat - 6 year old Male, fever

Organisms	Extent	1	2	3	4	5
878 <i>Staphylococcus epidermidis</i>						1
881 <i>Streptococcus</i> sp.; NOS				1		
893 <i>Streptococcus</i> sp.; Group C			1			1
921 Pos for beta-hemolytic strep screen		2				
922 Neg for Grp A strep screen by culture		10	3	2		
923 Pos for Grp A strep screen by culture		1	3			
947 No aerobic growth on blood agar		1				
975 Neg for strep Group A antigen				1		
TOTAL PARTICIPANTS		14	8	3		2

Flagging appears for failure to report 881, 893, 921, 922, 927 or 975.  
 In addition to the required organism, participants in all extents may report 878.

This throat had *Streptococcus* sp. Gp. C and *Staphylococcus epidermidis*. Deadly equine pathogens come from Gp. C *Streptococci*. In stable epidemics involving thoroughbreds, the mortality rate causes great financial losses. By contrast, human cases that ping-pong back and forth with horses are usually readily cured with penicillin. Even though there are 4 species, simple identification of the existence of Gp. C suffices for the report. Use A,B,C,D-antibody reagents which will determine the true identity when the use of the direct antigen swab shows negative. Gp. C does not differ from Gp. A on BAP colonies and hemolysis.

In this case there is a clear pathogen and the Staph is likely normal flora.

Specimen 5 - Throat - 24 year old Female, cough, fever, sore throat

Organisms	Extent	1	2	3	4	5
838 <i>Pseudomonas</i> sp.; NOS				1		
841 <i>Pseudomonas aeruginosa</i>						1
919 Neg for beta-hemolytic strep screen		1	1			
921 Pos for beta-hemolytic strep screen		1				
922 Neg for Grp A strep screen by culture		11	6	2		
947 No aerobic growth on blood agar		1				
975 Neg for strep Group A antigen				1		
TOTAL PARTICIPANTS		14	8	3		1

Flagging appears for failure to report 838, 841, 919, 922, 927, 947 or 975.  
 In addition to the required organism, participants in all extents may report [no additional codes].

This discharge produced *Pseudomonas aeruginosa*. In the wintertime, nasal passages open and close with either temperature or humidity changes. The dry indoor air needs added moisture and humidifiers often come into use. When nasal discharges, usually from the in-the-house children, pre-schoolers, etc. are cultured *Pseudomonas aeruginosa* is the most common "nonpathogen" found. True, it probably only colonizes but some degree of pathogenicity also results. The cause is failure to remove the water after 48 hrs. and clean. Pseudomonads are natural water flora and they increase readily at room temperature. The chlorine leaves the water quickly at room temperature. When the children breathe this vapor all day, the characteristic green discharge results.

A green pseudomonas is indicative of *P. aeruginosa*. If it is only fluorescent yellow, but will grow at 42°C or on acetamide it still is. *P. fluorescens* will fluoresce under "black light" as well but will be negative for 42°C and/or acetamide.