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Mexico

## SWAB CULTURE

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<b>Patient:</b> Jane Doe 6574 One way Dr. Overhere, GA 30237	Date of Birth: 04/24/92 Home Phone: Business/Cell Phone:	Sex: Female 365-354-9900	<b>Health Practitioner:</b> Sample Doctor Business Phone: 123-456-7890 Facsimile:
<b>History:</b> Foreign Travel: Symptoms: Past Infections/Treatment: Others infected in household:			

**Pathogenic Bacteria and Fungi: Normal value = 0 (not marked), 1 = light - 4 = heavy presence. 1= 30-100 CFU's (Colony Forming Units)/mL, 2= 100-200 CFU's/mL, 3= 200-300 CFU's/mL, 4= >300 CFU's/mL. The procedure for evaluation of intensity level is determined using the Serial Dilutions For Viable Plate Count method.**

### Common Bacterial Agents for urine and gastrointestinal infections

<i>Salmonella</i> sp.	<i>Vibrio cholera</i>	<i>Yersinia</i> sp.
<i>Escherichia coli</i>	<i>Citrobacter freundii</i>	<i>Campylobacter</i> sp.
<i>Klebsiella</i> sp.	<i>Proteus vulgaris</i>	<i>Clostridium difficile</i>
<i>Shigella</i> sp.		

### Common Bacterial Agents for skin, urine, and mucoid surfaces

<b>+ 3</b> <i>Staphylococcus</i> sp.	<i>S. coagulase positive (S. aureus)</i>	<i>S. coagulase negative (S. epidermidis)</i>
<i>Streptococcus</i> sp.	<i>Pseudomonas aeruginosa</i>	<i>Candida</i> sp. <i>Bacteroides</i> sp.
<i>Enterobacter</i> sp.	<i>Enterococcus</i> sp.	<i>Serratia marcescens</i>

**Comments** (samples tested at the Nogales facility):

## SUMMARY OF FINDINGS

### STAPHYLOCOCCUS

**Staphylococcus** is a genus of Gram-positive bacteria. It appears as round (cocci), and form in grape-like clusters. It includes at least 40 species. Most are harmless and reside on the skin and mucous membranes of humans and other organisms. Found worldwide, they are a small component of soil microbial flora. Assignment of a strain to the genus *Staphylococcus* requires it to be a Gram-positive coccus that forms clusters, produces catalase, has an appropriate cell wall. It divides along 2 axis forming clumps of bacteria. Streptococci divide along one axis and so form chains (strep. meaning twisted or pliant).

**Coagulase production:** *S. aureus* produces coagulase, an enzyme that causes blood clot formation. *S. epidermidis*, a coagulase-negative species, is a commensal of the skin, but can cause severe infections in immune-suppressed patients and those with central venous catheters. *S. saprophyticus*, another coagulase-negative species, causes genitourinary tract infections in sexually-active young women. Other species of *Staphylococcus* can cause human infections, notably *S. lugdunensis*, *S. schleiferi*, and *S. caprae*.

**Transmission:** Infection is transmitted by direct or indirect skin to skin contact (surgical instruments, fomites, air, unwashed hands, and skin lesions). Sexual contact is also a means of transmission.

**Symptoms:** *Staphylococcus* can cause a wide variety of diseases in humans and other animals through either toxin production or penetration. Staphylococcal toxins are a common cause of food poisoning, e.g., salmonellosis, as they can be produced by bacteria growing in improperly-stored food items. *S. aureus* causes skin infections (pimples, boils, cellulitis as pimples, impetigo, boils furuncles, cellulitis folliculitis carbuncles, scalded skin syndrome, abscesses), pneumonia, meningitis, osteomyelitis, endocarditis, toxic shock syndrome (TSS), bacteremia, and sepsis. It is one of the 5 most common causes of nosocomial infections and is often the cause of postsurgical wound infections with 500,000 cases in US hospitals annually. *S. aureus* super-antigen activities induce toxic shock syndrome (TSS). This is characterized by fever, erythematous rash, hypotension, shock, multiple organ failure, and skin desquamation. Other strains of *S. aureus* can produce an enterotoxin that cause *S. aureus* gastroenteritis which is self-limiting, characterized by vomiting and diarrhea in 1-6 hours after ingestion and recovering in 8- 24 hours. Symptoms include nausea, vomiting, diarrhea, & abdominal pain. Carriers are an important source of nosocomial infection and community-acquired methicillin-resistant *S. aureus* (MRSA). Most MRSA infections occur in people in hospitals or other health care settings, associated with invasive procedures or devices, such as surgeries, intravenous tubing or artificial joints. Another type of MRSA infection occurs in the wider community among healthy people. This form, begins as a painful skin boil. It's spread by skin-to-skin contact. At-risk populations include groups who live or work in crowded areas.

**Treatment:** For antibiotic recommendations see sensitivity results. For an herbal alternative use Freedom, Cleanse, Restore protocol.

**Prevention:** Hand washing techniques, use of disposable aprons and gloves, and use of ethanol as a topical sanitizer. Sexual contact is also a means of transmission.

**Note:** The Summary of Findings is for practitioner informational purposes only. References to treatment suggestions refer only to common practices and are not to be construed as PCI recommendations for specific individuals. It is incumbent upon practitioners to decide on the treatment that is best for their patient.