



Wound-ID Case Review

- **Patient History:**
 - 68yr old
 - Male
 - Chronic wound
- **Disease State:**
 - Wound has progressed over months
 - Prior Failed treatment
- **Why This Test was Ordered:**
 - Patient was geriatric
 - Provider ran out of options
 - Viable candidate for Wound-ID
- **Outcome:**
 - Staphylococcus aureus, enterotoxins A/B 10^6
 - Proteus mirabilis 10^6
 - Morganella morganii 10^5
 - Enterococcus faecalis, faecium 10^4
 - ARG: Beta-lactams, Macrolides, Methicillin, Tetracycline, Ampicillin, Aminoglycosides, Bactrim
 - They were able to treat the patient's wound by utilizing the PharmD guidance given, and the patient's wound finally healed
 - Provider said Vikor's Wound-ID panel is the best she has ever used, and has been treating wound's for over 20 years.



22 WestEdge Street 8th Floor
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www.vikorscientific.com



Patient Name



Date of Birth

XX-XX-1952



Gender

M



Race

UNDISCLOSED

Facility Information

Ordering Provider:

Facility:

Facility Phone:

Facility Fax:

Specimen Information

ACC:

Collection Date: 02-26-2021

Received Date: 03-01-2021

Notes:

Report Date: 03-03-2021

Sample Type: Wound Swab

PATHOGENS DETECTED

Staphylococcus aureus, enterotoxins A/B	1 x 10 ⁶ Cells/mL	47.366%
Proteus mirabilis	1 x 10 ⁶ Cells/ml	47.366%
Morganella morganii	1 x 10 ⁵ Cells/mL	4.737%
Enterococcus faecalis, faecium	1 x 10 ⁴ Cells/mL	0.474%
Corynebacterium jeikeium, striatum	1 x 10 ³ Cells/mL	0.047%
Peptoniphilus harei, ivorii	1 x 10 ² Cells/mL	0.005%
Peptostreptococcus prevotii, anaerobius, asaccharolyticus, magnus	1 x 10 ² Cells/mL	0.005%

RESISTANCE GENES DETECTED & POTENTIAL MED CLASS AFFECTED

VEB, blaNDM-1, OXA-1, GES	Beta-lactams	
ermB	Macrolides	
mecA	Methicillin	
tetM	Tetracycline	
ampC, ACC, DHA, ACT/MIR	Ampicillin	
aac6-1b/aacA4, ant(3), aph(A6), aac6-1b-cr	Aminoglycosides	
SULL, DFRA	Bactrim	

ABXAssist™

Pharmacy Guidance

Electronically approved on 03-03-2021 by: Robin Ritter • Email: pharmconsult@vikorscientific.com • Phone: 1.888.964.2141



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Drug Allergies:

Notes from Ordering Physician:

Notes from Pharmacist:

Antibiotic therapy is recommended per IDSA guidelines beginning at moderate loads in adults.

The bacteria identified in this patient carries a gene that confers resistance to methicillin. Due to the potential seriousness of methicillin resistance, this infection should be treated aggressively, and with close and vigilant monitoring of treatment effectiveness. MRSA can be treated with SMZ-TMP, clindamycin, and doxycycline orally and vancomycin, linezolid, and daptomycin intravenously. Clindamycin dosed at 300mg q8h is considered best to reduce possibility of C difficile.

Corynebacterium is part of the normal human skin flora and is generally recognized as a contaminant in wound samples. Peptoniphilus/Peptostreptococcus at lower loads is normal flora of the skin.

MEDICATION REVIEW

FIRST LINE

Medication	Route	Dose
sulfamethoxazole / trimethoprim	oral	1-2 DS tabs bid x5-14 days
Considerations: (MRSA) most CA-MRSA are susceptible, resistance to sulfa is not tested for Staph; avoid use with sulfa allergy, CrCl 15-30 reduce dose 50%, CrCl<15 avoid use, avoid use in asthma patients and pregnancy, avoid use with warfarin.		
AND		
levofloxacin	oral	500-750mg PO/IV qd x7-14 days
Considerations: (Proteus, Morganella, Enterococcus) Black box warning for tendinitis and tendon rupture, peripheral neuropathy, and CNS effects such as anxiety, confusion, depression, hallucinations, may cause blood glucose disturbances, especially in elderly and renal impaired, adjust dose with renal impairment.		
OR		
amoxicillin / clavulanate	oral	875/125mg bid x7-14 days PLUS ceftriaxone 1g IM/IV q24h (combo recommended to overcome potential resistance detected)
Considerations: (Proteus, Morganella, Enterococcus) Adjust dose with renal impairment, avoid use with penicillin allergy, take with food		



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ALTERNATIVE	linezolid	oral	600mg PO/IV q12h x10 days (PLUS levofloxacin or Augmentin; see above) Considerations: (MRSA, Enterococcus) For severe infections only, Use caution with patients taking SSRI; monitor for serotonin syndrome, Limit tyramine food content <100mg/meal, Will likely require PA, Lowers seizure threshold, Monitor blood pressure if uncontrolled HTN, No dose adjustment for renal or hepatic failure Use Tedizolid for lower risk of serotonin drug interactions
	OR	vancomycin	intravenous
			15-20mg/kg IV q8-48h depending on renal function and vancomycin trough levels (PLUS Augmentin or levofloxacin; see above) Considerations: Dosing dependent on renal function, goal trough 15-20mcg/ml, Caution in elderly, hearing impaired, renal impairment, No oral absorption

Methodology	The infectious disease and antibiotic resistance detection panels are tested utilizing Real-time PCR technology to detect the presence of genes associated with pathogens and antibiotic resistance via amplification of genomic DNA. Amplification and detection are performed using the Applied Biosystems™ QuantStudio™ 12K Flex Real-time PCR system, which includes the QuantStudio™ 12k Software v1.3 and Thermo Fisher Scientific TaqMan™ assays. The assays are preloaded onto TaqMan™ OpenArray plates.
Limitations	This test only detects microorganisms and antibiotic resistance (ABR) genes specified in the panel. ABR genes are detected in the specimen and are not specific to a detected pathogen. ABR genes may be detected in bacterial strains not tested for in the panel. The resistance genes for Ampicillin, selected Extended-Spectrum-BetaLactamases, Vancomycin, Carbapenems, Sulfonamide, Trimethoprim, Aminoglycosides and the Quinolone gyrase groupings are assays customized by pooling the individual genes listed in the associated group. If listed as positive, this indicates that at least one of the genes in the group was detected and the class of medication could have potential resistance.
Disclaimer	This test was developed and its performance characteristics determined by Vikor Scientific™. It has not been cleared or approved by the FDA. The laboratory is regulated under CLIA as qualified to perform high complexity testing. This test is used for clinical purposes. It should not be regarded as investigational or for research. The treatment guidance listed in the report is based on infectious disease treatment references, the organisms detected, and genes known to contribute to medication resistance. Important clinical information such as comorbidities, renal function, patient weight, platelet count, microbiology results, etc. may influence the overall appropriateness of therapy. The provided guidance only takes drug allergies into account when they are provided and available to the pharmacist making the recommendation. The overall appropriateness of therapy must be determined by the physician treating the patient. The provider has all the patient information necessary to make that determination and should take the entire clinical presentation into account when making treatment decisions. Should the treating physician wish to discuss the provided guidance, the pharmacist is available for consult at the email and phone number provided.



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NEGATIVE PATHOGENS
Acinetobacter baumannii
Anaerococcus vaginalis
Bacteroides fragilis
Bartonella henselae
Campylobacter coli, jejuni
Candida albicans, glabrata, tropicalis, parapsilosis
Candida auris
Citrobacter freundii
Clostridium botulinum
Clostridium difficile Toxin A/B
Clostridium perfringens
Enterobacter spp.
Enterohemorrhagic E. coli (0157)
Enteroinvasive E. coli
Enteropathogenic E. coli
Enterotoxigenic E. coli
Escherichia coli
Fusobacterium nucleatum, necrophorum
HPV 16
HPV 18
Haemophilus influenzae
Herpes zoster virus (Varicella zoster virus)
Klebsiella oxytoca, pneumoniae
Listeria monocytogenes
Mycobacterium abscessus
Mycobacterium fortuitum, chelonae
Mycobacterium kansasii
Mycobacterium marinum
Mycobacterium tuberculosis
Mycobacterium ulcerans
Mycoplasma genitalium, hominis
Pasteurella multocida
Prevotella spp.
Pseudomonas aeruginosa
Salmonella enterica
Serratia marcescens
Staphylococcus haemolyticus, lugdunensis
Stenotrophomonas maltophilia
Streptococcus agalactiae
Streptococcus pneumoniae
Streptococcus pyogenes
Trichophyton rubrum
Trichophyton soudanense, violaceum
Trichophyton tonsurans, interdigitale
Vibrio cholerae, parahaemolyticus, vulnificus
Yersinia enterocolitica

NEGATIVE RESISTANCE GENES	ANTIBIOTIC CLASS
CTX-M, TEM, TEM E102K, TEM R162S, TEM G238S, PER-1, PER-2, BlaSHV	Beta-lactams
OXA-23, OXA-40, OXA-58, OXA-72, IMP-16, NDM, blaOXA-48, OXA-48, KPC, VIM, IMP-7	Carbapenems
ermC, ermA	Macrolides
mcr-1	Polymyxins
QnrB, Gyrase A D87N_GTT, Gyrase A S83L_TGG, QnrA	Quinolones
VanB, VanA1, VanA2	Vancomycin