ARUP LABORATORIES | aruplab.com
500 Chipeta Way, Salt Lake City, Utah 84108-1221
phone: 801-583-2787, toll free: 800-522-2787
Tracy I. George, MD, Chief Medical Officer

Patient Report

Patient Age/Gender: 18 years Male

Specimen Collected: 22-Feb-21 07:29

Bacterial Strain Typing by NGS |Received: 22-Feb-21 07:32 Report/Verified: 22-Feb-21 08:43

Procedure	Result	Units	Reference Interval
Bacterial Strain Typing by NGS	SEE NOTE [f1 i1]		
EER Bacterial Strain Typing by NGS	See Note [f2]		

Result Footnote

f1: Bacterial Strain Typing by NGS
Clinical Information: 4 isolates of Staphylococcus aureus compared.
1,old
2,70
3,20
4,fresh
GROUPED INDISTINGUISHABLE ISOLATES:
Group A: 20, 70, fresh and old
GROUPS OR STRAINS NOT RELATED TO OTHER ISOLATES:
Group-A

f2: EER Bacterial Strain Typing by NGS
Access ARUP Enhanced Report using the link below:

-Direct access:

Test Information

i1: Bacterial Strain Typing by NGS
INTERPRETIVE INFORMATION: Bacterial Strain Typing by NGS

Method
Whole Genome Sequencing (WGS) is performed using Ion Torrent sequencing chemistry. Reference-free pairwise comparisons are performed using short, overlapping sequence matching (kmer) analysis. Relationships are determined by the percent of kmers that match between isolate pairs.

Interpretation
Predicted relatedness is based on the total number of differences between the isolates, applying the thresholds shown in the table. The dendrogram and relationship matrix (see enhanced report) illustrate isolate relatedness. Interpretation of strain relatedness should be performed by an investigator knowledgeable about whole genome strain typing procedures and based on all available epidemiological evidence. Inferred relationships based on any strain typing method should not be used for individual patient management.

WGS Strain Typing provides substantial improvements in resolution and reproducibility when compared to pulsed-field gel electrophoresis (PFGE) and can be performed on a broad range of microorganisms. Test was validated for Staphylococcus, Acinetobacter, Enterococcus, Escherichia, Pseudomonas, Stenotrophomonas, Serratia, and Klebsiella species.

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i1: Bacterial Strain Typing by NGS

CATEGORY	KMER IDENTITY	EPIDEMIOLOGICAL INTERPRETATION
Indistinguishable	99.9 or greater	Part of the outbreak
Closely related	99.8-99.2	Probably part of the outbreak
Possibly related	99.1-95.0	Possibly part of the outbreak
Unrelated	less than 95.0	Not part of the outbreak

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.