Client: Example Client ABC123
123 Test Drive
Salt Lake City, UT 84108
UNITED STATES

Physician: Doctor, Example

Patient: Patient, Example

DOB	12/29/2021
Sex:	Unknown
Patient Identifiers:	01234567890ABCD, 012345
Visit Number (FIN):	01234567890ABCD
Collection Date:	01/01/2017 12:34

Bacterial Strain Typing by Next Generation Sequencing

ARUP test code 3002528

Bacterial Strain Typing by NGS

SEE NOTE

Clinical Information: 3 isolates of Staphylococcus aureus compared.
1,12115557
2,12117107
3,12116600
GROUPED INDISTINGUISHABLE ISOLATES:
Group A: 12115557, 12116600 and 12117107
GROUPS OR STRAINS NOT RELATED TO OTHER ISOLATES:
Group-A

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.

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

H=High, L=Low, *=Abnormal, C=Critical

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.

EER Bacterial Strain Typing by NGS

See Note

Access ARUP Enhanced Report using the link below:

-Direct access:

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Bacterial Strain Typing by NGS	21-364-101995	12/30/2021 11:36:00 AM	12/31/2021 2:53:51 PM	1/17/2022 3:26:00 PM
EER Bacterial Strain Typing by NGS	21-364-101995	12/30/2021 11:36:00 AM	12/31/2021 2:53:51 PM	1/17/2022 3:26:00 PM

END OF CHART

H=High, L=Low, *=Abnormal, C=Critical