



MDH/MLS Challenge Set 2023 Instructions

Response deadline: February 16, 2024

Challenge Set 2023 Website: <https://www.health.state.mn.us/diseases/idlab/cs2023.html>

Link to enter results: <https://survey.vovici.com/se/56206EE34932F160>

CONTENTS

Enclosed in this shipping container you should find the following items:

- Four lyophilized specimens in glass vials
- Instructions

SAFETY

- All specimens should be considered potentially infectious and handled as though they are capable of transmitting disease.
- These organisms **must be handled in a properly functioning, certified Class II Biological Safety Cabinet (BSC)** whenever aerosolization of the organism is anticipated (e.g. vortexing, catalase testing, etc.).
- Use the same precautions and techniques that your laboratory normally uses for infectious materials. Routine disposal of infectious waste is appropriate.
- If you suspect or cannot rule out a potential bioterrorism agent, **DO NOT** utilize an automated identification system.

SPECIMEN PROCESSING INSTRUCTIONS

- Specimens can remain at room temperature or refrigerated temperature before rehydration.
- Rehydrate the specimens by adding 1.0 mL of sterile saline to each vial. Incubate the vials at 35-37° C for 15 minutes.
- Swirl the vial to ensure adequate mixing of the liquid and inoculate media appropriate for each specimen type with at least one large drop of suspension (see "Culture Workup Instructions" for specimen information). **NOTE:** DO NOT inoculate blood culture bottles for any of the samples.
- Incubate culture media for each specimen type according to your standard protocol. Anaerobic set-up and incubation are not necessary for any of the isolates.
- Each of the organisms included in this challenge set should grow within the incubation time normally recommended for the specimen type; however, if any of the specimens do not grow after **5 days** of incubation, please call to request a replacement.

CULTURE WORKUP INSTRUCTIONS

Identify the isolates to the same level of identification that you would normally report at your laboratory following your standard protocol.

Methods for rule out of a possible bioterrorism agent are available at the **American Society for Microbiology** website on the page titled: "[Laboratory Response Network \(LRN\) Sentinel Level Clinical Laboratory Protocols](#)" or at the **Minnesota**

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Department of Health website on the page titled "[Biological Emergency Preparedness and Response](#)". These documents are also linked to on the Challenge Set website.

Background Information for Specimens: Specimen types are given to aid in determining proper set up. We encourage labs who are performing limited micro to still work up and report an identification even if you do not routinely work up the specimen type described in the scenario.

Specimen 1: A 42 year old man cut his hand while working outdoors at a construction site. His symptoms include fever and swelling at the wound site. Isolate was recovered from wound culture. Do not perform susceptibilities.

Specimen 2: A 17 year old girl drank contaminated water while on vacation in Queensland, Australia, and the Great Barrier Reef. Her symptoms include fever and shortness of breath. Isolate was recovered from blood culture. Do not perform susceptibilities.

Specimen 3: An 8 year old girl began exhibiting a sore throat, hoarseness, and an unusual rash on her arms after playing with a sick classmate at school. Isolate was recovered from blood culture. Do not perform susceptibilities.

Specimen 4: A 30 year old woman with rheumatoid arthritis developed cellulitis after a minor surgery on her leg. Isolate was recovered from blood culture. Do not perform susceptibilities.

INSTRUCTIONS FOR REPORTING ANSWERS

- Use this link to enter results: <https://survey.vovici.com/se/56206EE34932F160>
- Please complete a response for each specimen, *even if your lab does not routinely perform testing on the indicated specimen types.*
- Submit Form and Print Results: After clicking on the "Submit Form" button, a summary of your responses for that specimen will be generated automatically; it is not necessary to print the pages while you are completing the responses. You may print a copy of this summary for your records, or you may email a copy of the summary to an email address of your choosing using the link at the top of the summary page.
- Following completion of the Challenge Set, you will receive a customized summary of your results as well as an aggregate report of results from all participating labs. Your results are considered confidential, and no other laboratory, hospital, or other entity will be able to view your individual results.

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