

Malaria Diagnostic Testing Practices

Thank you for considering participation in this survey. Emory University and the Centers for Disease Control and Prevention are trying to understand which tests are used for the diagnosis of malaria. Your participation is completely voluntary and you may choose to end the survey at any time. The survey is brief and estimated to take less than five minutes to complete.

By clicking "Agree" below, you indicate that:

- you have read the above information
- you voluntarily agree to participate in this survey

If you choose not to participate, please close the internet browser window now.

1. Do you agree to continue with the study?
 - a. Yes
 - b. No

2. Which of these is the best description of your job title:
 - a. Laboratory director
 - b. Microbiologist
 - c. Pathologist
 - d. Clinical laboratory scientist (medical technologist)
 - e. Other (please specify)
3. In which state is your laboratory located?
4. What is the postal code (ZIP code) for the primary location of your laboratory?
5. Which of these is the best description of your laboratory?
 - a. University hospital
 - b. Community hospital
 - c. VA hospital
 - d. Urgent care clinic
 - e. Primary care center
 - f. Commercial referral laboratory
 - g. Other (please specify)
6. Which of the following does your hospital primarily serve?
 - a. Adult population
 - b. Pediatric population
 - c. Both adult and pediatric population
7. What is the availability of malaria diagnostic testing performed on-site in your laboratory?
 - a. Available during working hours (9 am- 5pm or equivalent 8 hour period) only
 - b. Available during working hours (9 am- 5pm or equivalent 8 hour period) and after working hours by request only
 - c. Available 24 hours, 7 days a week
 - d. Not available
 - e. Other (please specify)

8. Approximately how many specimens were sent to your laboratory for diagnostic testing for malaria in the last 12 months?
 - a. 0
 - b. 1-10
 - c. 11-20
 - d. 21-50
 - e. 51-100
 - f. >100
9. How many confirmed cases of malaria were diagnosed in the last 12 months at your hospital? (Malaria parasites detected by smear microscopy or PCR)
 - a. 0
 - b. 1-5
 - c. 6-10
 - d. 11-15
 - e. >15
10. Are light microscopy blood smears (both thick and thin) available:
 - a. On-site
 - b. Send out
 - c. Not available
11. For blood smears, which staining techniques are used? (Mark all that apply)
 - a. Giemsa stain
 - b. Wright stain
 - c. Wright-Giemsa stain
 - d. Other (please specify)
12. How long does it typically take from receipt of specimen until a blood smear result (i.e.: parasite present or absent) is reported?
 - a. <1 hour
 - b. 1-4 hours
 - c. 5-12 hours
 - d. 13-24 hours
 - e. 25-36 hours
 - f. >36 hours
13. In your laboratory, how many high power fields (100x) in total are reviewed prior to determining a negative test?
 - a. <100 HPF
 - b. 101-149 HPF
 - c. 150-299 HPF
 - d. ≥ 300 HPF
 - e. Don't know
14. Who reviews the slides prior to reporting a POSITIVE result?
 - a. Two laboratory technicians review the smear prior to reporting a diagnosis of malaria
 - b. One laboratory technician + laboratory director review the smear prior to reporting a diagnosis of malaria

- c. One laboratory technician + pathologist review the smear prior to reporting a diagnosis of malaria
 - d. Comparison is made to a quality control smear only
 - e. Other (please specify)
15. In your laboratory, how long does it typically take from receipt of specimen until PERCENT PARASITEMIA is reported?
- a. < 1 hour
 - b. 1-6 hours
 - c. 7-12 hours
 - d. 13-24 hours
 - e. 25-36 hours
 - f. >36 hours
 - g. N/A, we report only whether the smear is positive or negative
16. In your laboratory, if a blood smear is reported as positive, is PCR routinely performed afterwards?
- a. Yes
 - b. No
 - c. Unsure
17. How many total red blood cells are counted to determine percent parasitaemia?
- a. 5000 RBCs
 - b. 500-1000 RBCs
 - c. 1001-2000 RBCs
 - d. 2001-3000 RBCs
 - e. 3001-5000 RBCs
 - f. Don't know
18. Which department performs malaria screening and determines percent parasitaemia?
- a. Microbiology
 - b. Hematology
 - c. Pathology
 - d. Don't know/Not applicable
 - e. Other (please specify)
19. Is antigen detection (rapid diagnostic testing) available:
- a. On-site
 - b. Send out
 - c. Not available
20. What subsequent tests are performed if antigen detection (rapid diagnostic testing) is positive?
(Mark all that apply)
- a. Microscopy
 - b. PCR
 - c. Sent to reference laboratory
 - d. No follow-up
 - e. Rapid diagnostic testing not performed on-site
 - f. Other (please specify)

21. How long does it typically take from receipt of specimen until a result from antigen detection is reported?
- <1 hour
 - 1-4 hours
 - 5-12 hours
 - 13-24 hours
 - 25-36 hours
 - >36 hours
 - Antigen detection is not performed on-site
22. Is serology by ELISA (enzyme-linked immunosorbent assay) for malaria available:
- On-site
 - Send out
 - Not available
23. Is serology by IFA (indirect fluorescent antibody) for malaria available:
- On-site
 - Send out
 - Not available
24. Is PCR for malaria available:
- On-site
 - Send out
 - Not available
25. What method(s) is/are used to determine malaria species?
- Blood smear
 - Blood smear preliminary followed by PCR
 - PCR only
 - Antigen detection only (rapid diagnostic testing)
 - Antigen detection (rapid diagnostic testing) and blood smear
 - Antigen detection (rapid diagnostic testing) and PCR
 - Species is not determined
 - Not applicable
 - Other (please specify)
26. Where does determination of malaria species occur?
- Determined on-site at our laboratory only
 - Determined on-site at our laboratory and confirmed at an outside laboratory (e.g.: state health department)
 - Determined at a send out laboratory
 - Other (please specify)
27. Who determines the DEFINITIVE species identification?
- Microbiology director or supervisor
 - Hematologist
 - Pathologist
 - State Health Department
 - Don't know
 - Other (please specify)

28. How long does it typically take from receipt of specimen until SPECIES of parasite is reported?
- < 1 hour
 - 1-6 hours
 - 7-12 hours
 - 13-24 hours
 - 25-36 hours
 - 37-48 hours
 - 49-72 hours
 - 3-5 days
 - 6-7 days
 - >7 days
 - Don't know
29. If diagnostic tests are performed at an outside laboratory, how long does it typically take before results (positive or negative) are reported back to your laboratory?
- Within 24 hours
 - 24- 48 hours
 - 49-72 hours
 - 3-5 days
 - 6-7 days
 - > 7 days
 - Not applicable
30. If diagnostic tests are performed at an outside laboratory, how long does it typically take before the level of parasitaemia is reported back to your laboratory?
- Within 24 hours
 - 24- 48 hours
 - 49-72 hours
 - 3-5 days
 - 6-7 days
 - > 7 days
 - Not applicable
31. If diagnostic tests are performed at an outside laboratory, how long does it typically take before the speciation of parasite is reported back to your laboratory?
- Within 24 hours
 - 24- 48 hours
 - 49-72 hours
 - 3-5 days
 - 6- 7 days
 - > 7 days
 - Not applicable

Thank you for completing the survey. We greatly appreciate your participation in this study.