AMERICAN SOCIETY FOR MICROBIOLOGY

American Board of Medical Microbiology (ABMM) Exam

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Exam Information

The ABMM exam is offered once a year in June, at testing centers located around the world.

OBJECTIVE
To measure the applicant's knowledge in the four subject areas considered necessary for the effective practice of medical and public health microbiology:

1. Directing Laboratory Testing Functions
2. Directing Laboratory Administrative Functions
3. Ensuring Safety and Security in the Laboratory
4. Consulting with Other Medical and Public Health Microbiology Professionals

Responsibilities and roster of the Exam Development Subcommittees.

EXAM FORMAT
The computer-based exam consists of 200 multiple-choice questions with only one correct answer. Candidates can move forward and back through the questions while examining and are allowed six hours to complete the exam.

ON EXAM DAY
Please plan to arrive at the testing center no more than 15 minutes before your scheduled exam time. The check-in process should only take five minutes.

You must bring the following with you to the testing center:

- *Your Test Taker Authorization Code.* The proctor cannot launch the test without this code. This code will be included in the confirmation email you are sent when you register for the exam.
- *Two forms of identification, one must be a current, government-issued, photo ID such as:*
  - State-issued driver's license or identification card
  - Passport
  - Military identification
  - National identification card
- The other can be a non-photo identification such as:
  - Credit card
  - Check cashing card
  - Bank debit card
  - Student ID from an accredited school
  - Both forms of identification can be government-issued photo ID.

NOTE: Both forms of ID must show your name exactly as it appears in your Webassessor profile.

RESPONSIBILITIES AND ROSTER OF SUBCOMMITTEES

ABMM Exam Development Subcommittee (EDS)
The primary responsibility of the EDS is overseeing the development of all examination questions. The subcommittee--

- ensures accuracy of questions in the exam question pool

- ensures there are a sufficient number of questions for each task
- ensures accuracy of documents available to examinees on http://www.asm.org/abmm
- reviews written examination questions
- reviews exam statistics and questions whose performance warrants review
- locates images as needed
- assigns writing tasks to Item Development Subcommittee members

In addition,

- EDS Chair coordinates the review of exam questions
- EDS Chair, with the ABMM Board Chair and Vice Chair, reviews examination drafts and finalizes the exam. They also review written examination statistics and, when necessary, identify questions that should be removed from scoring.

Previous experience on the Item Development or Validation Subcommittees is preferred for new EDS members. A balance of gender, geographic location, and institution type (e.g., hospital, public health, reference, etc.) is sought when selecting members to add to the Subcommittee.

ABMM Item Development Subcommittee (IDS)
The ABMM IDS's primary responsibility is writing new exam questions. IDS members are typically recently certified Diplomates (within the past five years). Previous experience on the Validation Subcommittee is preferred. A balance of gender, geographic location, and institution type (e.g., hospital, public health, reference, etc.) is sought when selecting members to add to the Subcommittee.

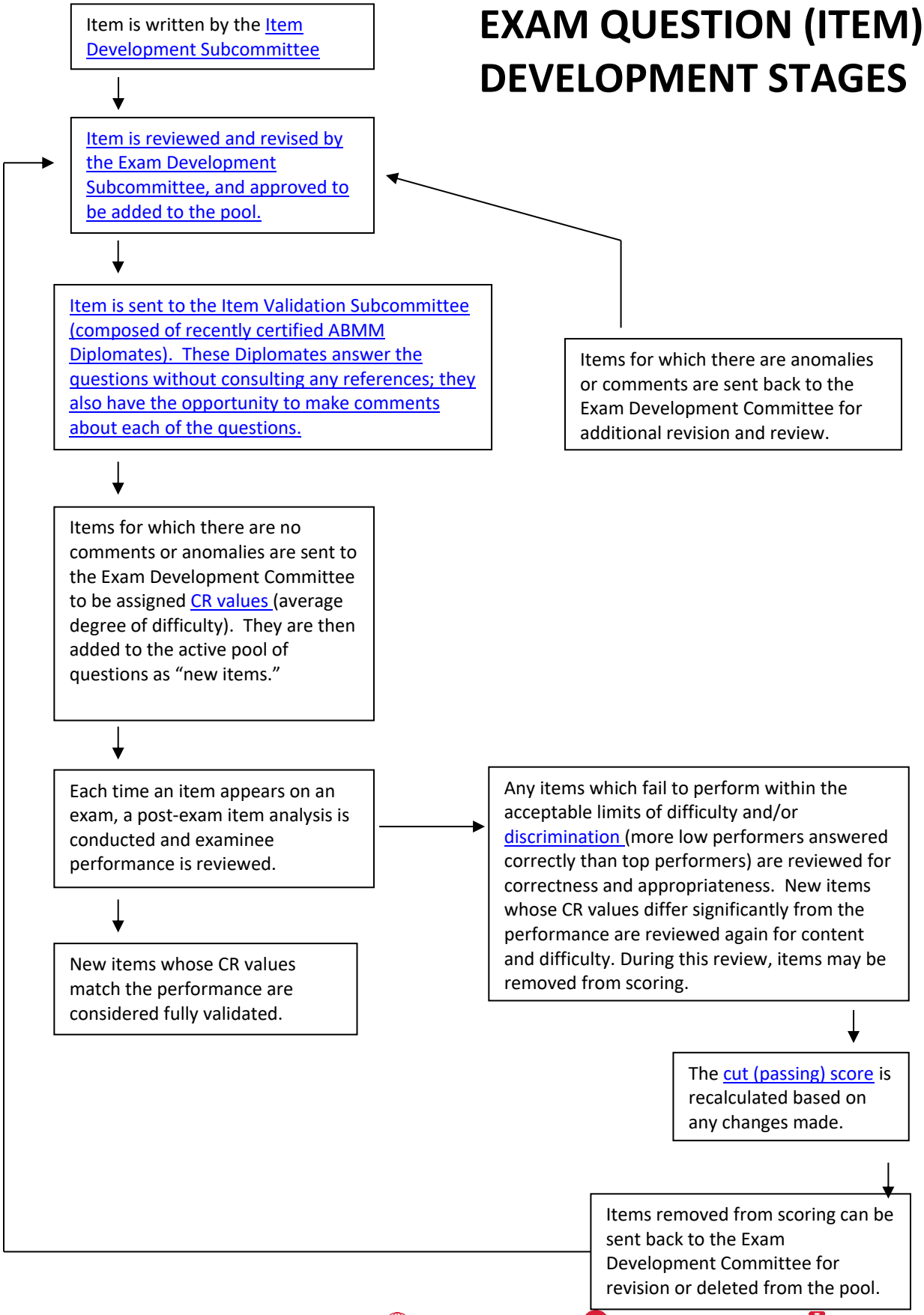
ABMM Validation Subcommittee (VS)
The ABMM VS is responsible for answering and commenting on examination questions.

New Validation Subcommittee members are recently certified Diplomates (within the past three years). A balance of gender, geographic location, and institution type (e.g., hospital, public health, reference, etc.) is sought when selecting members to add to the Subcommittee.

ABOUT THE EXAM QUESTIONS

- Two types of questions are incorporated in the exam:
  - Questions designed to test the recall of basic knowledge, direct interpretation of data or simple synthesis of information.
  - Questions that require a higher level of thought process, reasoning skills or interpretation of data to arrive at the correct answer.
- Any calculations needed on the exam will not require a calculator.
- Questions are reevaluated and updated annually. You should expect to see questions on technical advances or issues that occurred during the past year.

EXAM QUESTION (ITEM) DEVELOPMENT STAGES



SCORING
The ABMM uses a criterion-referenced scoring system.

You are not graded on a curve and do not compete against each other.

CRITERION-REFERENCING

The ABMM uses a criterion-referencing system (the modified Nedelsky method) to assign each item (question) a difficulty value. This value is determined by how difficult the Exam Development Committee perceives an item to be, which corresponds directly to the number of sophisticated distractors within the item.

Here is a simple example: Which body of the United States government has the power to declare war on another country?

A. The Executive Branch (-1)
B. The Congress (1)
C. The Supreme Court (-2)
D. The Federation of States (-2)

CR Value = 0.60; there is one sophisticated distractor.

KEY: Sophisticated Distractors	
1	**Correct answer** This is the only correct answer.
-1	**Sophisticated distractor** Examinees with *some knowledge* of the subject *might* choose this response.
-2	**Non-sophisticated distractor** Examinees with *minimum knowledge* of the subject *would not* choose this response.

KEY: CR Values		
Difficulty Value	**# of Sophisticated Distractors**	**Expected Candidate Correct Response Rate***
.90	0	approximately 90% (relatively easy question)
.60	1	approximately 60%
.45	2	approximately 45%
.36	3	approximately 36% (very difficult question)

** This is the expected candidate correct response rate for a group of minimally competent examinees (i.e., those with just enough knowledge to competently perform the job being assessed by the exam). Actual candidate response rates may differ, depending on the strength (or weakness) of the candidates in a given year.*

DISCRIMINATION

Discrimination is a function of how the highest-scoring examinees did in comparison to the lowest-scoring examinees. This index can range from -1.00 (weak examinees significantly outperform strong examinees on the item) to +1.00 (strong examinees significantly outperform weak examinees on the item). In other words, a question's discrimination will be positive if the stronger examinees scored better on that item than the weaker examinees. The discrimination values are also applied to the distractors (i.e., incorrect answers).

Usually, positive discrimination above +0.20 for a correct answer, and low or negative discrimination (i.e., below +0.20) for the distractors, is a sign of a good item. An item showing a low or negative discrimination for the correct answer indicates that lower scorers on the exam scored almost as well or better on that item than the higher scorers did. Similarly, an item showing a positive discrimination for a distractor indicates that higher scorers on the exam were attracted to that distractor at a greater rate than the lower scorers. A discrimination value of zero (0.00) indicates that weak and strong examinees performed equally well.

CUT (PASSING) SCORE

The cut (pass/fail) score of an exam is directly related to the number of easy, medium, and hard questions appearing on that exam. For example, if all of the items on an exam have CR values of 0.90 (i.e., they are all easy questions), examinees will need to answer 90% of the items correctly to pass.

The ABMM uses an assessment software tool to generate exams each year. The software pulls questions from the pool that meet the exam's content requirements and the average degree of difficulty (which has been set at 0.70 since 1999). The average degree of difficulty ensures the rigor of the exam is consistent from year-to-year.

Following the administration of the exam, all items appearing on the exam are reviewed. Their performance is compared to their CR and discrimination values to assess which items have performed as expected and which items should be reviewed by the ABMM Chair, Vice-Chair, and Exam Development Chair.

In the case of items that do not perform as expected, the current year's performance statistics are compared to those of previous exams, if the data is available, to discern whether any discrepancies are due to an anomaly in examinee knowledge. If previous statistics are unavailable, the ABMM Chairs review items to ensure that they are not ambiguous or incorrect.

Items with content flaws are removed from scoring, and the cut score is calculated based on the average difficulty of the items remaining on the exam. The exam is not scored on a curve; each examinee's score is derived solely from the number of questions answered correctly.

RESULTS

Exam results are emailed by September 1 to the email address provided in your Webassessor profile. Please be sure to keep your contact information in your Webassessor profile updated to ensure you receive correspondence from the ABMM.

ABMM Pass Rate (2020-2024)

		2024	2023	2022	2021	2020
	Number of Examinees	50	49	53	47	39
	Number Passing	24	35	29	24	24
	Pass Rate	48%	71%	55%	51%	62%
1st Time or Repeat Examinee	**1st Time**	36	38	33	34	30
	Number Passing	24	28	25	24	23
	Pass rate	66%	73%	76%	71%	77%
	Repeat	14	11	20	13	9
	Number Passing	3	7	4	0	1
	Pass rate	21%	63%	20%	0%	11%
Completed CPEP Program (At Any Point in Career)	**CPEP**	17	19	16	20	16
	Number Passing	14	18	14	18	15
	Pass rate	82%	95%	88%	90%	94%
	Non-CPEP	33	30	37	27	23
	Number Passing	6	17	15	6	9
	Pass rate	18%	57%	41%	22%	39%
Years Experience	**Straight Out of CPEP**	16	17	14	18	16
	Number Passing	14	16	13	18	15
	Pass rate	88%	94%	93%	100%	94%
	ACGME/CCM/RCPSC Fellowship	5	8	0	3	1
	Number Passing	4	7	0	2	1
	Pass rate	80%	87%	0%	67%	100%
	3-9	21	14	27	15	17
	Number Passing	10	6	14	4	7
	Pass rate	47%	42%	52%	27%	41%
	10+	8	10	12	11	5
	Number Passing	1	6	2	0	1
	Pass rate	12%	60%	17%	0%	20%
Degree(s) Held	**M.D.**	6	10	19	13	12
	Number Passing	3	7	8	3	5
	Pass rate	50%	70%	42%	23%	42%
	Ph.D.	31	28	29	31	24
	Number Passing	16	20	19	20	18
	Pass rate	51%	71%	66%	65%	75%
	M.D. & Ph.D.	1	8	3	3	3
	Number Passing	1	6	1	1	1
	Pass rate	100%	75%	33%	33%	33%
	Other	12	3	2		
	Number Passing	4	2	1		
	Pass rate	33%	67%	50%		
Where Most Recent Degree Was Obtained	**US/Canada**	43	31	33	39	31
	Number Passing	24	26	24	24	24
	Pass rate	55%	83%	73%	62%	77%
	Other	7	18	20	8	8
	Number Passing	0	9	5	0	0
	Pass rate	0%	50%	25%	0%	0%

FAQs

I used my email address as my login and now my email address has changed. How can I change my login to my new email address?
You need to log in to your account and update the email address field with your current email address. Once you have done this, you will need to submit a request to certification@asmusa.org to change your login to match your new email address.

What if my application is not approved?
If your application is not approved, you will be informed of the reason and you will have 30 days to appeal the decision by having additional supporting materials (in the form of a transcript, educational evaluation, and/or clarification emails) submitted on your behalf. You will not be allowed to submit additional references during the appeal process. If your application is not approved on appeal, it will be withdrawn and you will need to submit a new application for your eligibility to be re-evaluated.

I applied previously, but my application was withdrawn. Do I have to resubmit all of my application materials to reapply?
You must wait at least two years after your application was withdrawn before reapplying. However, transcripts are kept on file for seven years. If you reapply within seven years of your application's withdrawal, you will not need to resubmit your transcripts and/or educational evaluation. A new application fee must be submitted; all other application materials do not need to be resubmitted.

I created a Webassessor profile and paid the application fee. Is there an actual application that I need to fill out to document my education and work experience?
Yes, the link for the application form can be found at https://asm.org/Articles/CPHMC/ABMM-Apply, under step 2. Please review the application instructions closely.

Do I need to have my undergraduate or master's degree transcripts sent to the ABMM or evaluated?
No. You only need to have your doctoral degree transcript submitted to the ABMM if educated in the U.S. or Canada or obtain a U.S. degree equivalency statement for your doctoral degree if educated outside the U.S. or Canada.

Does experience need to be gained within the United State to be considered for eligibility?
No, it does not matter where the experience is gained, as long as it meets the Board's requirements delineated on the Eligibility page.

I am trying to register to take the exam, but the dates on the calendar are grayed out and I do not have the option to select an exam time.
If all of the dates in a given month are grayed out, it means that the testing center is not available for an exam of that length. You are welcome to contact Kryterion Support. You can also check the availability of other testing centers in the area and, if none of them are available in the exam administration window, try expanding your testing center search to include testing centers that are further away. Additionally, you can submit a request to Kryterion to open the testing center. While a request to open a testing center is being processed, examinees are encouraged to schedule their exams at one of the other testing centers to ensure that they are able to sit for the exam in the current year.

What if my first choice of a testing center is not available?
You can submit a request to take the exam at your first choice of a testing center by contacting Kryterion Support. However, you are advised to schedule your exam at an alternate testing center to ensure you are able to sit for the exam in the current year.

What if there aren't any testing centers in my area?
If there is not a testing center close to you when it is time to register to take the exam, you will need to travel to the nearest testing center to take the exam.

Can I reschedule my exam?
Yes. As long as it is 72 hours before your scheduled exam time, you can reschedule your exam by logging into your Webassessor account, clicking on the Details link next to your scheduled exam and clicking on the "Reschedule" button. To reschedule an exam within 72 hours prior to your scheduled exam time, you must contact the ABMM office (at certification@asmusa.org or 202-942-9257). No refunds will be issued for exams rescheduled within 72 hours of the scheduled exam sitting, and rescheduling an exam within this time frame will result in your having to pay another exam registration fee.

What if I need to cancel my exam registration once it has been scheduled?
To cancel your exam, you must send an email notification of your intent to cancel to certification@asmusa.org. In order to be issued a $350 refund for a cancellation, your request must be received by the ABMM at least five business days prior to your scheduled exam. No refunds will be issued for cancellations within this time frame.

Besides my authorization code and two forms of identification, what else can I bring to the testing center?
You will not be allowed to bring anything into the exam room with you except for your identification and authorization code. Any other personal items including, but not limited to, bags, purses, wallets, coats, jackets, hats, briefcases, books, mobile devices such as beepers, cellphones and smartphones, calculators, personal digital assistants (PDAs) and watches must be stored outside of the exam room. The testing centers have locked cabinets available to store personal items, should you decide to bring any of these items with you. Please be advised that the ABMM, Kryterion, Inc., and the testing center are not responsible for lost or stolen personal items that you bring with you to the testing center. Additionally, tobacco products, food, drinks and chewing gum are not allowed in the exam room.

Once you have entered the testing center, you will need to participate in their pre-exam inspection, including:

- Pocket Turn-Outs: You will be asked to turn-out your pockets (on jackets, jeans, slacks, etc.) to verify that your pockets are empty or do not contain any prohibited items.

Please note: Proctors have been given strict instructions not to make physical contact with you. Ideally, you should empty your pockets prior to entering the Testing Center.

- Eyewear Inspections: Due to technological advances, such as "Google Glass", external eyewear will be inspected by the proctor to ensure it is not technology-enabled.

You are not allowed to leave the testing facility during breaks.

What if there is a power outage or other technical difficulties at my testing center?
In the event of an unforeseen circumstance preventing the exam or interrupting the exam (for example, a power outage or loss of internet connectivity), the testing center and Kryterion will work diligently to resolve the problem as quickly as possible. If necessary, your exam can be rescheduled for another date in the exam administration window, or at another testing center: you will have the time remaining (out of a total of six and a half hours) to complete the exam. Please note, however, that if this happens toward the end of an exam administration window, it may not be possible to reschedule your exam in the current exam window. If this happens, your exam will need to be rescheduled for the next year's exam window and a new exam will be administered to you at that time. As such, you are advised to schedule your exam as early as possible in the exam administration window.

Kryterion, Inc. (the company that runs Webassessor) has security and back-up measures in place to ensure that examinees' answers are recorded accurately and that examinees are given the full time allowed to complete the exam. Answers are transmitted and recorded individually by Kryterion each time you hit the Next button on your exam. As such, if something happens in the middle of the exam to prevent your completion of the exam on that day, your answers will not be lost. Additionally, Kryterion will keep track of how much time is remaining in your exam session. When your exam is re-launched, the last question you were answering when your exam was interrupted will appear, as will the exam timer showing the time remaining in your session.

What if I do not pass the exam?
Applicants have three exam attempts from their approval date to pass the exam. This means that if you do not pass the exam the first time you take it, you can take the exam up to two more times within the next two years. You must pay the exam registration fee of $400 each time you register to take the exam. If you fail three times, you will need to wait two years before reapplying. After the two year break, you must reapply by submitting a new application. You must pay the application fee for approval. Once approved, you may examine one last time. If you do not pass, you are no longer eligible to apply to the ABMM.

Preparing for the Exam

STUDY SUGGESTIONS

Past examinees have identified the following activities as beneficial for examination preparation. These activities are NOT meant to be comprehensive guides to the examination and are not endorsed by the ABMM.

- Studying medical microbiology textbooks and reference manuals such as those listed in the "Suggested References" list below.
- Reviewing medical microbiology case studies and reports from various sources (journals, textbooks, and Web sites.
- Reviewing the Morbidity and Mortality Weekly Report (MMWR).
- Reviewing websites such as http://www.cdc.gov (for information about infectious diseases, immunizations, and susceptibility testing), http://www.clsi.org/, and https://emedicine.medscape.com/infectious_diseases.

SUGGESTED RESOURCES

The following references are NOT meant to be comprehensive guides to the examination but have been suggested by the ABMM. Examinees should follow the most update editions of the references listed.

Centers for Medicare and Medicaid Services. Clinical Laboratory Improvement Amendments (CLIA). (available at: https://www.cms.gov/Regulations-and-Guidance/Legislation/CLIA/index.html)

Centers for Disease Control and Prevention. DPDx Laboratory Identification of Parasites of Public Health Concern. (available at: https://www.cdc.gov/dpdx/index.html)

Chosewood, L.C., and D. E. Wilson (ed.). 2008. Biosafety in Microbiological and Biomedical Laboratories, 5th ed. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, and National Institutes of Health. U.S. Government Printing Office, Washington, D.C. (available at: http://www.cdc.gov/biosafety/publications/bmbl5/index.htm)

Clinical and Laboratory Standards Institute. QMS04 (Laboratory Design), M100 (Performance Standards for Antimicrobial Susceptibility Testing) and M60 (Performance Standards for Antifungal Susceptibility Testing of Yeasts). CLSI, Wayne, PA. (available at: http://www.clsi.org)

Garcia, L.S. (ed.). 2014. Clinical Laboratory Management, 2nd ed. ASM Press, Washington, D.C.

Heymann, D.L. (ed.). 2022. Control of Communicable Diseases Manual, 21st ed. American Public Health Association, Washington, D.C.

Procop, G.W. et al. 2017. Koneman's Color Atlas and Textbook of Diagnostic Microbiology, 7th ed. Lippincott Williams & Wilkins, Philadelphia, PA.

Westbblade, L.F. , E.M. Burd, S. R. Lockhart, G.W. Procop. 2023. Larone's Medically Important Fungi: A Guide to Identification, 7th ed. ASM Press, Washington, D.C.

Miller, J. M. et al (ed.). 2012. Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories: Recommendations of a CDC-convened, Biosafety Blue Ribbon Panel. MMWR Suppl. 61(01):1-101. CDC, Atlanta, GA. (available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/su6101a1.htm)

Kimberlin, D.W. et al (ed.). 2021. Red Book: Report of the Committee on Infectious Diseases, 32nd ed. American Academy of Pediatrics, Elk Grove Village, Ill. (available at: http://aapredbook.aappublications.org)

Carroll K.C., M.A. Pfaller, M. L. Landry, A.J. McAdam, R. Patel, S.S. Richter and D. W. Warnock (ed.). 2019. Manual of Clinical Microbiology, 12th ed. ASM Press, Washington, D.C.

Detrick, B., J.L. Schmitz and R.G. Hamilton (ed.). 2016. Manual of Molecular and Clinical Laboratory Immunology 8th ed. ASM Press, Washington, D.C.

Persing D.H. et al (ed.) 2016. Molecular Microbiology: Diagnostic Principles and Practice, 3rd ed. ASM Press, Washington, D.C.

Ash, L.R. and T.C. Orihel (ed.). 2007. Ash and Orihel's Atlas of Human Parasitology, 5th ed. ASCP Press, Chicago, IL.

Meechan, P.J. and J. Potts (ed.) 2020. Biosafety in Microbiological and Biomedical Laboratories. 6th ed. Centers for Disease Control and Prevention, National Institutes of Health, Washington, D.C.

Leber, A.L., 2016. Clinical Microbiology Procedure Manual, 4th ed. ASM Press, Washington, D.C.

Microbiology Board Review Course. A one-day workshop held at the ASM Microbe meeting. https://asm.org/Events/ASM-Microbe/Home

College of American Pathologists (CAP) Accreditation Checklist (Microbiology sections). https://www.cap.org/laboratory-improvement/accreditation/accreditation-checklists

EXAM CONTENT: UPDATED OCTOBER 2023

A list of the topics tested on the exam is provided below. Questions are classified first by domain, then category, and then task. The tasks should be used as a guideline for questions that appear on the exam.

		% of questions on exam	% of questions in each category				
Domain			**1**	**2**	**3**	**4**	**5**
I.	Directing Laboratory Testing Functions	44.5%	32.5%	12%			
II.	Directing Laboratory Administrative Functions	19%	6%	6%	3.5%	2%	1.5%
III.	Ensuring Safety and Security in the Laboratory	11.5%	10.5%	1%			
IV.	Consulting with Other Medical Professionals	25%	19.5%	3%	2.5%		
Total		**100%**					

Domain I. Directing Laboratory Testing Functions (44.5% of exam)

Category 1. Up-to-date Practices (standards, evolving technologies, and emerging infectious diseases) (32.5%)
Consult sources of relevant literature/review and critically analyze published studies/data, and consult sources of current professional practices and procedures (e.g., MCM, CLSI, CAP Checklist, ClinMicroNet, IDSA, JCM, etc.)
Revise Laboratory processes to match emerging infections or test methods (e.g., transition of methods to reflect emerging pathogens, use of new specimen types.)
Identify issues surrounding the management and interpretation of high-density information (e.g., bioinformatics [including tools for data analytics], multiplexing, next generation sequencing, etc.) (Includes: managing extraneous information from multiplex assays or sequencing such as results for analytes that have not been verified and MALDI-TOF.)
Recognize organisms associated with emerging infectious diseases
Understand the impact of specimen collection and transport of clinical specimens on test results
Identify up-to-date practices for diagnosis of bacterial infection
Identify up-to-date practices for diagnosis of viral infection
Identify up-to-date practices for diagnosis of fungal infection
Identify up-to-date practices for diagnosis of mycobacterial infection
Identify up-to-date practices for diagnosis of parasitic infection
Identify up-to-date practices for antimicrobial and antifungal susceptibility testing
Category 2. Test Protocols (development, assessment, and implementation - including evidence-based testing methods) (12%)
Assess evidence basis for test validity (*Includes: Correlation of in vitro susceptibility testing results with patient outcome; practicing evidence-based medicine; use of evidence-based guidelines from other organizations, and justification for adherence to current guidelines.*)
Review and critically compare published studies/data regarding test methods (including manufacturer's package insert data.)
Describe accepted microbiology testing practices
Troubleshoot laboratory processes
Understand the development and implementation of LDTs
Develop and perform verification studies (to include differentiating analytical and clinical sensitivity and specificity, perform specimen stability studies, reference ranges, etc.)
Assess emerging technologies/trends and potential impact on clinical interpretation
Determine positive and negative predictive values based on a given population prevalence

Domain II. Directing Laboratory Administrative Functions (19% of exam)

Category 1. Test Menus (population, costs, logistics) (6%)
Determine infectious disease prevalence and risk factors in a population
Determine the demographics of population served and impact on testing (e.g., pediatrics vs. adults, performing HPV testing on men who have sex with men, performing C. difficile testing on patients < 1 year of age, etc.)
Understand the clinical impact (consider value and limitations) of algorithmic and/or syndromic testing in certain disease states
Recognize opportunities for improved diagnostic stewardship and direct appropriate test utilizations
Assess critical nature of the test (e.g., appropriate test menu and turnaround time.)
Recommend alternate or confirmatory tests
Category 2. Test Quality Control (formerly Quality Control and Quality Metrics/Indicators (6%)
Recognize testing events and non-conformities that trigger corrective action, determine a corrective action, and monitor the effectiveness of the action
Recognize acceptable values and appropriate controls for a test (e.g., appropriate QC matrix, QC for molecular multiplex tests, acceptable QC material, and frequency of testing.)
Perform root cause analysis for the cause of quality control failure (e.g., environmental contamination, internal control failure, inappropriate incubation conditions, organism used.)
Recognize types of errors that may occur (e.g., pre-analytical, analytical, post-analytical; time in transit impacts on specimen stability and test performance characteristics.)
Perform analysis and determine action thresholds for unusual results patterns or trends (e.g., develop and interpret Levey-Jenings charts, positivity rates, etc.)
Category 3. Critical Results (identification and communication) (3.5%)
Recognize normal and abnormal values for test results
Communicate results (*Includes: Ethics questions; how do you communicate the results of research-based tests [such as RUO] to clinicians; Establish systems for technical staff to communicate critical results.*)
With physician input, assess the degree of harm to the patient when a testing or interpretation error occurs
Recognize degree of clinical importance of an abnormal value
Category 4. Quality Management Systems (2%)
Consult data sources, analyze data, and generate reports (*Includes: LIS systems, EMR, Analysis of blood culture contamination rates by unit, utilization of laboratory collection supplies [more supplies going out than coming back]; utilization reports.*)
Perform Root Cause Analysis
Recognize types of errors that may occur, acceptable error rate and analysis of trends (*Includes developing and implementation of IQCP, is an assay eligible for an IQCP, what components should be analyzed to determine if an IQCP can be developed.)*
Category 5. Proficiency Testing Program (1.5%)
Institute and assure appropriate proficiency testing program
Investigate failures and determine corrective actions
Set up internal (alternative) proficiency testing program

Domain III. Ensuring Safety and Security in the Laboratory (11.5% of exam)

Category 1. Laboratory Safety (general, biosafety, biosecurity) (10.5%)
Recognize pathogens (bacterial, viral, fungal) potentially implicated in laboratory acquired infections (i.e., identifying laboratory functions that may pose an aerosolization risk, identifying specimens that require biosafety precautions, blood-borne pathogens.)
Identify biocontainment practices (BSL, PPE, work practices, facility locations, etc.)
Recognize safety considerations in laboratory design and operations that may contribute to laboratory exposures and infections
Implement expert and regulatory guidelines (e.g., federal, CDC) for agents of bioterrorism, select agents, and pandemic threats
Develop and implement biosecurity standard operating procedures (SOPs)
Understand classification of chemical disinfectants and their activity against microorganisms
Identify possible misidentification of pathogens of public health importance by various identification methods (including MALDI-TOF, nucleic acid amplification and other methods.)
Understand the recommended post-exposure recommendations for certain potential laboratory-acquired infections (including prophylaxis, testing and immunization.)
Category 2. Emergency Response Plans (1%)
Perform site-specific risk assessment
Develop emergency testing plans (e.g., alternate protocols, continuity of operations etc.)

Domain IV. Consulting with Other Medical Professionals (25% of exam)

Category 1. Medical Personnel (19.5%)
Perform analytical interpretation (e.g., culture results, stain results, serology results, AST results.)
Determine the extent of testing (e.g., recommend additional testing based on specimen type, patient, and preliminary results.)
Interpret interrelated laboratory tests, interact with other laboratory disciplines (e.g., histopathology, chemistry, hematology, immunology, etc.) using collaborative networks of expertise and interpretive algorithms to create a differential diagnosis and identify appropriate diagnostic methods
Recognize organisms associated with specific infectious diseases
Recognize modes of organism transmission and epidemiology of disease
Recognize disease state and perform clinical interpretation (including ability to correlate multivariate results) and provide interpretation of tests in context with other external tests (e.g., chemistry, hematology, genetic testing, personalized medicine, etc.) and identify legal implications and liability associated with ancillary laboratory functions (includes clinical presentation, case description, develop a differential diagnosis interpretation of CSF culture in light of cell count/glucose/protein/genetic testing, interpretation of multiple laboratory results, test.)

Category 2. Pharmacists (antimicrobial stewardship, formulary, susceptibility testing, antibiogram, sterility testing) (3%)
Interpret CLSI and other breakpoint setting bodies (e.g. EUCAST, STIC) guidelines for antimicrobial susceptibility testing interpretation (including route of administration, synergy testing, ECOFF.)
Classify antimicrobial agents, routes of administration, and resistance mechanisms, PK/PD data
Category 3. Infection Preventionists (2.5%)
Establish and monitor resistant organism surveillance
Associate transmission-based precautions with specific organisms/diseases
Develop SOPs for surveillance specimen work up

Contact Us

The ABMM is prepared to assist you in applying for board certification. Questions or comments about the ABMM are welcome and may be directed to the ABMM at the following address:

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American Society for Microbiology
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