Purpose of this report

The purpose of this report is to provide feedback to the pediatric infectious diseases community regarding content areas of strength and weakness, information which may be useful for identifying potential gaps in knowledge and guiding the development of educational materials. Using data from the American Board of Pediatrics' (ABP) Maintenance of Certification Assessment for Pediatrics (MOCA-Peds), this report summarizes diplomate performance on the questions within each of the 48 content areas assessed in 2020.

MOCA-Peds content areas

In 2020, MOCA-Peds—Pediatric Infectious Diseases consisted of questions from a total of 48 content areas, broken down as follows:

- 45 learning objectives¹ Each diplomate initially received one question from each of the 45 specific content areas drawn from the pediatric infectious diseases content outline.
- Three featured readings¹ Each diplomate also received two questions per featured reading (eg, clinical guidelines, journal articles) for a total of six featured reading questions.

A pool of questions was developed for each learning objective and for each featured reading. Questions were then drawn from the pool and administered to diplomates throughout 2020 according to the specifications described in the bulleted list above.

Understanding this report

This report provides a graphical summary of diplomate performance on each of the 48 content areas assessed in 2020. Within the graphic and in the example below, the point (•) reflects the average percent correct for all questions within that learning objective or featured reading. The bar (—) reflects the range of percent correct values for the questions within that learning objective or featured reading. More specifically, the bar's lower endpoint indicates the most difficult question (ie, answered correctly by the lowest percentage of diplomates) and the bar's upper endpoint indicates the easiest question (ie, answered correctly by the highest percentage of diplomates).



¹Each diplomate also received 15 "repeat" questions selected from their original subset of learning objective and featured reading questions. Performance on the repeat administrations is not included in this report.

A note of caution

Many factors (eg, specific content of the question, wording of the question, plausibility of the incorrect answers) can impact diplomate performance on any question. It is thus difficult to determine if poor performance on a single question, or small set of questions, within a given content area reflects a true gap in diplomate knowledge or if the question(s) associated with that content area were difficult for other reasons (or some combination of both). Collectively, the entire set of MOCA-Peds questions (across all content areas) constitutes a psychometrically valid assessment of the diplomate's overall level of knowledge. Performance within a given content area is based on fewer questions, however, and is therefore less useful for making inferences about diplomate knowledge in that specific content area.

It is important to note again that for security reasons, a pool of questions was developed for each content area so that each diplomate received a unique set of questions. In addition, the number of questions can vary from one content area to the next. In cases where a content area had a relatively large pool of questions, the number of diplomates who answered each question was reduced, which diminished the statistical precision of each question's percent correct value. In cases where a content area had a relatively small number of questions, each question was answered by a larger number of diplomates, but the overall breadth of the content being assessed within that content area was constrained, which limits the generalizability of the results.

In other words, MOCA-Peds was designed to assess individual diplomates with respect to their overall level of knowledge in pediatric infectious diseases. It was not designed to provide the pediatric community with diagnostic feedback pertaining to specific content areas within pediatric infectious diseases. The results within this report may be informative and useful for that secondary purpose, but they should be interpreted with a degree of caution.

Additional notes

- To protect the security of the content of the assessment, the questions themselves, along
 with information about the number of questions in the pool for any particular learning
 objective or featured reading, are not provided in this report.
- This report contains data aggregated across many diplomates participating in the MOCA-Peds program and cannot be used to make inferences or draw conclusions regarding any particular diplomate.

2020 Content Area Feedback Report Pediatric Infectious Diseases

| | | | Percent Co | | | |
|------|--|---|------------|---------|-----------|-----------|
| | Learning Objective | 0 | 25 | 50 + | 75 —+ | 100 —— |
| 1. | Explain why influenza vaccines in general demonstrate low efficacy. | | | | | |
| 2. | 2018 Infectious Diseases Society of America clinical practice guideline for the management of outpatient | | | _ | | |
| | parenteral antimicrobial therapy (Featured Reading) | | | - | _ | |
| 3. | Recognize the clinical manifestations of infection with intraperitoneal catheters. | | | _ | • | |
| 4. | Guideline for the management of fever and neutropenia in children with cancer and hematopoietic | | | | _ | |
| | stem-cell transplantation recipients: 2017 update (Featured Reading) | | | _ | • | _ |
| 5. | Understand the concepts of sensitivity and specificity. | | | _ | • | _ |
| 6. | Plan antimicrobial therapy for Candida auris infections. | | | | - | |
| 7. | Outline the infections that would exclude health care workers from the workplace. | | | | • | |
| 8. | Outline an immunization regimen for a patient undergoing elective splenectomy. | | | | - | _ |
| 9. | Design therapy based on antibacterial resistance testing. | | | | - | |
| 10. | Plan antimicrobial therapy for ESBL-producing organisms. | | | • | - | |
| 11. | Plan a tiered evaluation for a child with fever of unknown origin. | | | | - | |
| 12. | Understand the role of antiviral therapy in adenovirus infection. | | | | - | |
| 13. | Plan the evaluation of a child recently adopted from a developing country. | | | | - | _ |
| 14. | Recognize the clinical features of mediastinitis. | | | | - | |
| 15. | Know the indications and contraindications for echinocandin therapy. | | | | • | - |
| 16. | Recognize the clinical presentation and infectious causes of encephalitis. | | | | • | _ |
| 17. | Recognize the risk factors for bacterial endocarditis. | | | : | - | _ |
| 18. | Discriminate between the isolation protocols required for various pathogens. | | • | | -4 | - |
| 19. | | | | | | |
| | tuberculosis. | | | | - | - |
| 20. | Understand the safety profile of and indications for neuraminidase inhibitors. | | | : | | _ |
| | Outline the immunologic evaluation of a child presenting with disseminated nontuberculous mycobacterial | | | : | : | |
| | infection. | | | | - |) |
| 22. | Evaluate a child for possible Kawasaki disease. | | | | -4 | _ |
| 23. | Know the appropriate indications for initiating antiviral therapy in an immunocompromised host. | | | | - | |
| 24. | Outline a plan for the management of infant botulism. | | • | • | 4 | - |
| 25. | Update: interim guidance for the diagnosis, evaluation, and management of infants with possible | | | : | : | |
| | congenital Zika virus infection – United States, October 2017 (Featured Reading) | | | | → |) |
| 26. | Recognize situations in which emergence of resistance to beta–lactam therapy during treatment is likely. | | | | : | - |
| 27. | Recognize bacterial properties that promote evasion of the immune response. | | | | | • |
| 28. | Understand the potential toxicities of antimalarial drugs. | | | • | _ | • |
| 29. | | | | | _ | • |
| 30. | Recognize the different causes of parotitis (other than mumps) in children. | | • | • | _ | • |
| 31. | Plan the evaluation of an infant born to a mother with serologic evidence of Toxoplasma infection. | | ; | | _ | • |
| 32. | Recognize the clinical presentation of a patient with neonatal HSV. | | : | | - : | • |
| 33. | Understand the limitations of current meningococcal conjugate vaccines. | | | : | : | • |
| 34. | Interpret results of viral antigen and viral nucleic acid amplification testing. | | | : | | • |
| 35. | Recognize the important viral pathogens causing infection following solid organ transplantation. | | | | : | |
| 36. | Recognize the suppurative complications of Streptococcus pyogenes infection. | | | | | • |
| 37. | Describe the diagnosis and management of antibiotic–associated colitis. | | | | | • |
| 38. | Recognize the increased potential for antibiotic side effects in neonates. | | • | | | |
| 39. | Recognize when to use nucleic acid amplification testing. | | : | | : | |
| 40. | Recognize clinical situations in which higher than usual dosing of aminoglycosides may be required. | | : | | : | |
| 41. | Recognize the clinical manifestations of mumps. | | | | | |
| 42. | Understand the principles behind scheduling the administration of live and inactivated vaccines. | | | | | • |
| 43. | Plan definitive therapy for enterococcal infections. | | | | | |
| 44. | Describe the management of acute community–acquired pneumonia in children. | | | | | |
| 45. | Recognize the clinical manifestations of Lyme disease. | | | : | : | |
| 46. | Discriminate between low– and high–risk rabies exposure scenarios. | | | | | |
| 47. | Plan empiric therapy for a previously healthy patient with septic shock. | | | : | : <u></u> | |
| 48. | Know the clinical manifestations of Chagas disease. | | | | | |
| -70. | The time of the control of the gas discuss. | | | | | _ |

Sample: Included in the sample were all diplomates who currently have a Part 3 (exam) requirement that could be fulfilled through MOCA–Peds and answered at least one question in 2019 (N = 167).