Purpose of this report

The purpose of this report is to provide feedback to the pediatric nephrology 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 49 content areas assessed in 2021.

MOCA-Peds content areas

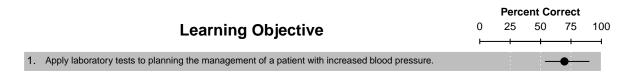
In 2021, MOCA-Peds—Pediatric Nephrology consisted of questions from a total of 49 content areas, broken down as follows:

- 45 learning objectives¹ Each diplomate initially received one question from each of the 45 specific content areas drawn from the pediatric nephrology content outline.
- Four featured readings¹ Each diplomate also received two questions per featured reading (eg, clinical guidelines, journal articles) for a total of eight 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 2021 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 49 content areas assessed in 2021. 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 nephrology. It was not designed to provide the pediatric community with diagnostic feedback pertaining to specific content areas within pediatric nephrology. 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.

2021 Content Area Feedback Report Pediatric Nephrology

| | Learning Objective | Perc 0 25 | ent Correct | 100 |
|----------|---|---------------------|------------------|---------------|
| 4 | | - | | |
| 1. 2. | Apply laboratory tests to planning the management of a patient with increased blood pressure. Know the long–term implications of intrinsic acute kidney injury. | | | |
| 3. | Identify prognostic factors in patients with posterior urethral valves. | | | |
| 4. | Appropriately prescribe continuous renal replacement therapy (ie, continuous veno–venous hemodialysis). | | - | |
| 5. | Know the uses and limitations of ambulatory blood pressure monitoring in the evaluation of childhood | : : | : : | |
| | hypertension. | | - | _ |
| 6. | Plan the management of a metabolic emergency in an infant with an inborn error of metabolism. | | -•- | |
| 7. | Understand risk factors for post–transplant lymphoproliferative disease. | : | - | _ |
| 8. | Plan the diagnostic approach for a patient with a family history of hematuria. | | • | |
| 9. | Develop a systematic plan for treating a patient with oxalosis. | | | |
| 10. | Plan the treatment of recurrent bacterial infection related to peritoneal dialysis access. | | | |
| 11. | Know and apply the appropriate guidelines for sports participation in a hypertensive athlete. | | | - |
| 12. | Contrast the criteria for diagnosis of urinary tract infection in an intact versus a diverted urinary | | • | , |
| 10 | collecting system. | | | |
| | Know the basic concepts of quality improvement science. | | -• | _ |
| | Interpret mean and standard deviation in normally distributed data sets. | | | , |
| | Know the risk factors for recurrent disease in a kidney transplant recipient. | : | : :- |) — |
| 16. | Recognize renal compensation for chronic metabolic alkalosis. | | _ |) |
| | Know the normal requirements for fluid and electrolytes in children of different ages. | | | |
| 18. | Efficacy of rituximab vs tacrolimus in pediatric corticosteroid–dependent nephrotic syndrome: a randomized clinical trial (Featured Reading) | | — | • |
| 10 | Describe factors that may limit donor availability for an individual transplant recipient. | | | |
| 20. | Plan the appropriate dialysis prescription to minimize the risk of dialysis disequilibrium syndrome. | : | : : : : = | |
| | The dietary management of calcium and phosphate in children with CKD stages 2–5 and on dialysis – | | : : | |
| ۷۱. | clinical practice recommendation from the Pediatric renal Nutrition Taskforce (Featured Reading) | | - : - | • |
| 22. | Plan the management of post–obstructive diuresis in a neonate. | : | : : | _ |
| 23. | Provide counseling for participation in sports for patients with a solitary kidney. | : | : : | |
| 24. | Understand how hypomagnesemia complicates the treatment of hypocalcemia. | | | • |
| 25. | | : | : : | |
| | glomerulosclerosis. | | | • |
| 26. | Recognize the causes of hypertension in a patient with a renal transplant. | | | • |
| | Recognize risk factors for and the clinical presentation of papillary necrosis. | | | |
| 28. | Identify the pathophysiologic factors in chronic kidney disease that negatively affect linear growth. | | - | → |
| 29. | Recognize drugs that should be avoided in a patient with advanced chronic kidney disease or end-stage | | | |
| | renal disease. | | | |
| 30. | Understand the pathophysiology of acute kidney injury secondary to tumor lysis syndrome. | | | • |
| 31. | Plan the pharmacologic management of a child with hyperparathyroidism secondary to chronic kidney | | _ | |
| | disease. | | | |
| 32. | Plan the management of a neonate with multicystic-dysplastic kidney. | | | - |
| 33. | Anticipate the negative side effects of treating a patient for cystinuria. | | | • |
| | Recognize the manifestations of acute cell–mediated transplant rejection. | | | • |
| | Assess the adequacy of chronic hemodialysis. | | | |
| 36. | International consensus statement on the diagnosis and management of autosomal dominant polycystic | | | • |
| | kidney disease in children and young people (Featured Reading) | | | |
| 37. | Plan the appropriate modification of a dialysis prescription in a child with severe cramping during | | | - |
| | hemodialysis. | | | |
| 38. | Association between fluid balance and outcomes in critically ill children: a systematic review and | | | • |
| 00 | meta-analysis (Featured Reading) | · | | |
| 39. | Estimate free water and sodium deficits and develop plans for rehydration. | : | : : | • |
| 40. | Identify the causes of acute allograft dysfunction in the immediate post–transplant period. Recognize the association between thyroid disease and congenital nephrotic syndrome. | | : : | - |
| | | | | • |
| 42. | Know the renal associations of tuberous sclerosis in the perinatal period. Know the indications for kidney biopsy in a patient with proteinuria. | | | - |
| 44. | Know the abnormalities of cardiac function associated with chronic kidney disease and end–stage kidney | | | |
| →⊶. | disease. | | | • |
| 45. | | | | |
| 46. | Identify clinical signs and symptoms of hyperkalemia. | | | |
| | Plan the laboratory evaluation and therapeutic approach to a child with membranous nephropathy. | | : _ : _ : _ | - |
| 48. | Understand the effect of chronic kidney disease on neurocognitive development. | | | |
| | Know how to interpret results of voiding cystourethrography. | | : <u> </u> | |
| | | | | |

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 2021 (N = 212).