Purpose of this report

The purpose of this report is to provide feedback to the pediatric pulmonology 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 2022.

MOCA-Peds content areas

In 2022, MOCA-Peds—Pediatric Pulmonology 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 pulmonology 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 2022 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 2022. 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 pulmonology. It was not designed to provide the pediatric community with diagnostic feedback pertaining to specific content areas within pediatric pulmonology. 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.

2022 Content Area Feedback Report Pediatric Pulmonology

	Learning Objective	0		Correct 50 75	100
1	Differentiate between mechanics measurements (eq. Compliance, Resistance) for the respiratory system and		<u> </u>	! !	
1.	for the lung.				_
2.	Decide the most appropriate treatment for acute viral bronchiolitis.			_	
3.	2020 Focused Updates to the Asthma Management Guidelines: A Report from the National Asthma Education		:	: :	
	and Prevention Program Coordinating Committee Expert Panel Working Group (Pages 1247–1254) (Featured Reading)			-	-
4.	Home Oxygen Therapy for Children: An Official American Thoracic Society Clinical Practice Guideline (Featured Reading)		·	-	-
5.	Describe the risk factors for the development of bronchopulmonary dysplasia (BPD).			-	
6.	Identify the congenital lung malformations that occur during the pseudoglandular stage of development.			•	
7.	Chronic Cough and Gastroesophageal Reflux in Children (Featured Reading)			-	_
8.	Apply current guidelines for nutritional monitoring and management in patients with cystic fibrosis.			-	
9.	Review the modalities used to diagnose a patient with pulmonary vein stenosis.		:	-	_
	Understand the diagnosis of pulmonary interstitial glycogenosis. Interpret the exercise test results of a person with isolated pectus excavatum.			•	
	Describe the epidemiology and pathophysiologic basis of asthma.				
	Assess the risk factors for development of a pleuropulmonary blastoma in a patient with a congenital			: :	
	pulmonary airway malformation. Use cytology data to diagnose Langerhan cell histiocytosis and in the evaluation of as cystic lung			-0	-
	disease. Explain the components of respiratory system mechanics that increase the risk of respiratory distress in		:	-	-
	the newborn infant. Distinguish methods to monitor patients after lung transplantation.			-	-
	Distinguish cell differentials in bronchoalveolar lavage fluid obtained from uninfected healthy children			: : :	
	and children with an endobronchial bacterial infection.			-	•
	Develop differential diagnosis for lung diseases based on time since a bone marrow transplant. Interpret the results of a non-inferiority trial design.				
	Explain the role of invasive ventilation in the management of respiratory distress in the newborn infant.			-	•
21.	Assess the likelihood of bronchiolitis obliterans based on history and radiographic and lung function findings.			_	•
22.	Select appropriate chronic maintenance therapies for cystic fibrosis based on current guidelines.			·	-
	Know that apnea of prematurity generally resolves by 36 to 37 weeks' postmenstrual age (PMA) in		:	: :	
	premature infants born approximately 28 weeks and that infants born at less than 28 weeks may have apnea			-	•
	that persists past 38 weeks' PMA or Know the expected time course for apnea of prematurity.				
	Distinguish bias and confounding.				•
	Describe the effects of chronic exposure to high altitude on lung growth and development. Recognize the criteria for diagnosis of hereditary hemorrhagic telangiectasia.				
	Understand the epidemiology, pathophysiologic basis, and the differential diagnosis of environmental				
	injuries and exposures. Diagnose obstructive hypoventilation using polysomnography results.				•
	Identify alveolar capillary dysplasia with misaligned pulmonary vessels based upon clinical presentation				
_0.	and diagnostic evaluation.				•
30.	Calculate the odds of a child inheriting asphyxiating thoracic dystrophy based upon the parents'				_
	genotypes.				•
	Develop a care plan for an adolescent with morbid obesity with sever obstructive sleep apnea.			: :	•
	Describe pulmonary effects of diabetes on infants born to mothers with diabetes.				•
	Recognize risk factors for pulmonary edema.				•
	Evaluate and manage adolescents with asthma.				•
	Identify the differential diagnoses of crackles noted on respiratory examination.				
	Relate mental health of patients and caregivers to adherence and disease outcome.				-
37.	Evaluate a patient with congenital central hypoventilation syndrome (CCHS) for common non–pulmonary complications (arrhythmia, neuroblastoma, Hirschsprung disease).				
38.	Describe the basic science and pathophysiologic basis of bronchospasm/bronchoconstriction and its evaluation.		:	: :	•
39	Discuss the etiologies of chronic cough during childhood.			: _ : _	
	Identify resident pulmonary inflammatory cells and their function.				
	Interpret the diagnostic workup for a child with a laryngeal cleft.				•
	Recognize the symptoms of chronic respiratory failure.				•
	Recognize the areas supplied by the bronchial circulation, including the parenchyma and pleura.			: <u>:</u> :	•
44.	Discuss how to perform and interpret spirometry.				•
	Discuss the clinical phenotype of primary ciliary dyskinesia.			: :	•
	Recognize chest radiographic features suggestive of viral, bacterial, and atypical pneumonia.				•
	Identify etiologies of dry, recurrent cough in children.				•
48.	Identify extrapulmonary causes of respiratory failure.				•
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