



# SLEEP MEDICINE LKA Blueprint

## *Obstructive Sleep Apnea (OSA) Emphasis*

### **Purpose of the exam**

The exam is designed to evaluate the knowledge, diagnostic reasoning, and clinical judgment skills expected of the certified sleep medicine specialist in the broad domain of the discipline. The ability to make appropriate diagnostic and management decisions that have important consequences for patients will be assessed. The exam may require recognition of common as well as rare clinical problems for which patients may consult a certified sleep medicine specialist. The exam is developed jointly by the ABIM, the American Board of Anesthesiology, the American Board of Family Medicine, the American Board of Otolaryngology – Head and Neck Surgery, the American Board of Pediatrics, and the American Board of Psychiatry and Neurology.

### **Exam content**

The Sleep Medicine LKA: Obstructive Sleep Apnea (OSA) Emphasis option has a greater number of questions on OSA than the general Sleep Medicine LKA. It also includes additional questions on bruxism, snoring, gastroesophageal reflux disease, and home sleep apnea testing. Overall, there is about a 70% overlap with the current general Sleep Medicine blueprint.

Exam content is determined by a pre-established blueprint, or table of specifications, which is reviewed annually and updated as needed for currency. Trainees, training program directors, and certified practitioners in the discipline are surveyed periodically to provide feedback and inform the blueprinting process.

The primary medical content categories of the OSA Emphasis blueprint are shown below, with the percentage assigned to each for a typical exam:

<b>Medical Content Category</b>	<b>% of Exam</b>
Normal Sleep and Variants	11%
Circadian Rhythm Sleep-Wake Disorders	7%
Insomnia	11%
Central Disorders of Hypersomnia	8%
Parasomnias	5%
Sleep-Related Movements	8%

Sleep-Related Breathing Disorders	38%
Sleep in Other Disorders	6%
Instrumentation and Testing	6%
	100%

*ABIM is committed to working toward health equity and believes that board-certified physicians should have an understanding of health care disparities. Therefore, health equity content that is clinically important to each discipline will be included in assessments, and the use of gender, race, and ethnicity identifiers will be re-evaluated.*

### **Exam format**

The Sleep Medicine OSA Emphasis assessment is only available as a Longitudinal Knowledge Assessment. Physicians taking the Sleep Medicine LKA: OSA Emphasis will continue to be reported as certified in Sleep Medicine. More information about the OSA Emphasis version of the Sleep Medicine LKA can be found here: <https://www.abim.org/maintenance-of-certification/assessment-information/sleep-medicine/sleeplka-osa-faqs>

ABIM's **Longitudinal Knowledge Assessment (LKA™)** for MOC is a five-year cycle in which physicians answer questions on an ongoing basis and receive feedback on how they are performing along the way. More information on how exams are developed can be found at <https://www.abim.org/about/examinformation/exam-development.aspx>.

Most questions describe patient scenarios and ask about the work done (that is, tasks performed) by physicians in the course of practice:

- **Diagnosis:** making a diagnosis or identifying an underlying condition
- **Testing:** ordering tests for diagnosis, staging, or follow-up
- **Treatment/Care Decisions:** recommending treatment or other patient care
- **Risk Assessment/Prognosis/Epidemiology:** assessing risk, determining prognosis, and applying principles from epidemiologic studies
- **Pathophysiology/Basic Science:** understanding the pathophysiology of disease and basic science knowledge applicable to patient care

Clinical information presented may include patient photographs, actigrams, and polysomnograms to illustrate relevant patient findings. Some questions may include video.). A tutorial including examples of question format can be found at <http://www.abim.org/maintenance-of-certification/assessmentinformation/sleep-medicine/exam-tutorial.aspx>.

The blueprint can be expanded for additional detail as shown below. Each of the medical content categories is listed there, and below each major category are the content subsections and specific topics that *may* appear in the exam. Please note: actual exam content may vary.

<b>Normal Sleep and Variants</b>	<b>11%</b> of Exam
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<b>Sleep-wake mechanisms, neurophysiology</b>	3%
Circadian timing	
Homeostatic sleep regulation	
Non-rapid eye movement (NREM) sleep mechanism	REM
sleep regulation	
Wake neurophysiology	
<b>Other physiology</b>	<2%
Gastrointestinal	
Pulmonary	
Endocrine	
Cardiovascular	
<b>Normal sleep</b>	<2%
Infancy	
Childhood	
Adolescence	
Adulthood	
Elder years	
Pregnancy	
Menopause	
<b>Effects of sleep deprivation</b>	<2%



Neurocognitive function	5%
Mood disturbances	
Metabolic disturbances	

**Scoring and staging**

Staging and arousals	
Respiratory events	
Movement	
Cardiac	
Electroencephalogram (EEG) variant Other	
scorable events	

<b>Circadian Rhythm Sleep-Wake Disorders</b>	<b>7%</b> of Exam
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<b>Circadian sleep disorders</b>	5%
Delayed sleep-wake phase disorder	
Advanced sleep-wake phase disorder	

Non-24-hour sleep-wake rhythm disorder (free-running circadian sleep disorder Irregular sleep-wake disorder	
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<b>Shift work disorder</b>	<2%
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<b>Jet lag disorder</b>	<1%
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<b>Circadian sleep-wake disorder not otherwise specified, including disruption related to behavior, medical conditions, or drugs or substances</b>	<1%
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<b>Insomnia</b>	<b>11%</b> of Exam
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<b>Short-term insomnia</b>	<1%
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<b>Chronic insomnia in adults</b>	7%
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<b>Chronic insomnia in children</b>	2%
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<b>Insomnia related to behavior, medical conditions, or drugs or substances, and isolated symptoms and normal variants associated with complaints of insomnia</b>	<b>&lt;2%</b>
Insomnia related to behavior, medical conditions, or drugs or substances	
Isolated symptoms and normal variants associated with complaints of insomnia	
Excessive time in bed	
Short sleeper	

<b>Central Disorders of Hypersomnia</b>	<b>8%</b> of Exam
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<b>Narcolepsy</b>	<b>3.5%</b>
Type 1 (with cataplexy)	
Type 2 (without cataplexy)	
<b>Idiopathic hypersomnia</b>	<b>&lt;1%</b>
<b>Kleine-Levin syndrome (periodic hypersomnia)</b>	<b>&lt;1%</b>
<b>Insufficient sleep syndrome</b>	<b>&lt;2%</b>
<b>Hypersomnia due to medical disorders</b>	<b>&lt;1%</b>
<b>Hypersomnia due to medications</b>	<b>&lt;1%</b>
<b>Hypersomnia associated with psychiatric disorders</b>	<b>&lt;1%</b>
<b>Long Sleeper</b>	<b>&lt;1%</b>

<b>Parasomnias</b>	<b>5%</b> of Exam
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<b>NREM-related parasomnias</b>	<b>2%</b>
Confusional arousals	
Sleep walking	
Sleep terrors	
Sleep-related eating disorder	
<b>REM-related parasomnias</b>	<b>2%</b>



REM sleep behavior disorder	
Recurrent isolated sleep paralysis	
Nightmare disorder	
<b>Other parasomnias</b>	<b>&lt;1%</b>
Exploding head syndrome	
Sleep-related hallucinations	
Enuresis	
Parasomnia due to medical disorders, medications, or substances or unspecified	
<b>Isolated symptoms and normal variants</b>	
Sleep talking	
	<b>&lt;1%</b>

<b>Sleep-Related Movements</b>	<b>8%</b> of Exam
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<b>Restless legs syndrome</b>	<b>2.5%</b>	<b>Periodic</b>
<b>limb movement</b>	<b>1 %</b>	
Periodic limb movements during sleep		
Periodic limb movement disorder		
<b>Rhythmic movement disorder</b>	<b>&lt;1%</b>	<b>Sleep-related leg cramps</b>
<b>Bruxism</b>	<b>2.5%</b>	
<b>Sleep myoclonus</b>	<b>&lt;1%</b>	
Benign sleep myoclonus of infancy		
Propriospinal myoclonus at sleep onset		
<b>Other-sleep-related movement disorders due to medical disorders, medications, or substances</b>	<b>&lt;1%</b>	
<b>Isolated symptoms and normal variants</b>	<b>&lt;1%</b>	
Excessive fragmentary myoclonus		
Hypnagogic foot tremor and alternating leg muscle activation		
Sleep starts (hypnic jerks)		

<b>Sleep-Related Breathing Disorders</b>	<b>38%</b> of Exam
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**Obstructive sleep apnea**

- Adult obstructive sleep apnea
- Pediatric obstructive sleep apnea

**Central sleep apnea syndromes**

- Central sleep apnea with Cheyne-Stokes breathing
- Central sleep apnea due to a medical disorder without Cheyne-Stokes breathing
- Central sleep apnea due to high-altitude periodic breathing
- Central sleep apnea due to medications or substances
- Primary central sleep apnea
- Primary central sleep apnea of infancy      Primary
- central sleep apnea of prematurity
- Treatment-emergent central sleep apnea      28%

**Sleep-related hypoventilation disorders**      <2%

- Obesity-hypoventilation syndrome
- Congenital central alveolar hypoventilation syndrome
- Late-onset central hypoventilation with hypothalamic dysfunction
- Idiopathic central alveolar hypoventilation
- Sleep-related hypoventilation due to medications or substances
- Sleep-related hypoventilation due to medical disorders

**Sleep-related hypoxemia disorder**      <1%

**Isolated symptoms and normal variants**      3%

- Snoring
- Catathrenia

<b>Sleep in Other Disorders</b>	<b>6%</b> of Exam
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**Neurologic disorders**      <2%

- Neurodegenerative disorders    Synucleinopathies
  - Alzheimer’s disease
  - Fatal Familial Insomnia
- Traumatic brain injury    Neuromuscular disorders
- Cerebrovascular disorders



Sleep-related epilepsy and seizure disorders	
Congenital disorders	
Sleep-related headaches	
Neurodevelopmental	
Sleep-related laryngospasm	
<b>Psychiatric disorders</b>	<b>&lt;2%</b>
Mood disorders	
Psychotic disorders	
Anxiety	
Substance abuse	
Other conditions (e.g., PTSD and ADHD)	
<b>Other medical disorders</b>	<b>3.5%</b>
Genetic disorders	Endocrine disorders
Cardiac disorders	
(e.g., Sleep-related myocardial ischemia)	
Pulmonary disorders	
(e.g., Sleep-related laryngospasm)	
Gastrointestinal disorders	
(e.g., Sleep-related gastroesophageal reflux)	
Hematologic disorders	

<b>Instrumentation and Testing</b>	<b>6%</b> of Exam
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<b>Electrical components</b>	<b>&lt;1%</b>
Sensors	
Filters	
Analog-to-digital (A-to-D) convertors	Display
<b>Technical aspects of sleep devices</b>	<b>&lt;1%</b>
Actigraphy	
Positive airway pressure (PAP) and ventilatory support devices	
<b>Electrical safety</b>	<b>&lt;1%</b>
<b>Artifacts</b>	<b>&lt;1%</b>
<b>Study preparation and testing conditions</b>	<b>3%</b>



Polysomnography (PSG)  
Multiple Sleep Latency Test (MSLT) and Maintenance of  
Wakefulness Test (MWT)

Home sleep apnea testing

**Epidemiology and screening**

<1%

Statistics and testing characteristics

Questionnaires

January 2025