



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:

Medical Content Category	% of Exam
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%

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/sleep-lka-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/exam-information/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/assessment-information/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.

Normal Sleep and Variants	11% of Exam
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Sleep-wake mechanisms, neurophysiology	3%
Circadian timing	
Homeostatic sleep regulation	
Non-rapid eye movement (NREM) sleep mechanism	
REM sleep regulation	
Wake neurophysiology	

Other physiology	<2%
Gastrointestinal	
Pulmonary	
Endocrine	
Cardiovascular	
Normal sleep	<2%
Infancy	
Childhood	
Adolescence	
Adulthood	
Elder years	
Pregnancy	
Menopause	
Effects of sleep deprivation	<2%
Neurocognitive function	
Mood disturbances	
Metabolic disturbances	
Scoring and staging	5%
Staging and arousals	
Respiratory events	
Movement	
Cardiac	
Electroencephalogram (EEG) variant	
Other scorable events	

Circadian Rhythm Sleep-Wake Disorders
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7% of Exam

Circadian sleep disorders	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	
Shift work disorder	<2%
Jet lag disorder	<1%
Circadian sleep-wake disorder not otherwise specified, including disruption related to behavior, medical conditions, or drugs or substances	<1%

Insomnia	11% of Exam
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Short-term insomnia	<1%
Chronic insomnia in adults	7%
Chronic insomnia in children	2%
Insomnia related to behavior, medical conditions, or drugs or substances, and isolated symptoms and normal variants associated with complaints of insomnia	<2%
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	

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

Parasomnias	5% of Exam
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NREM-related parasomnias	2%
Confusional arousals	
Sleep walking	
Sleep terrors	
Sleep-related eating disorder	
REM-related parasomnias	2%
REM sleep behavior disorder	
Recurrent isolated sleep paralysis	
Nightmare disorder	

Other parasomnias	<1%
Exploding head syndrome	
Sleep-related hallucinations	
Enuresis	
Parasomnia due to medical disorders, medications, or substances or unspecified	
Isolated symptoms and normal variants	<1%
Sleep talking	

Sleep-Related Movements

8% of Exam

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

Sleep-Related Breathing Disorders

38% of Exam

Obstructive sleep apnea	28%
Adult obstructive sleep apnea	
Pediatric obstructive sleep apnea	
Central sleep apnea syndromes	5%
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	
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	

Sleep in Other Disorders	6% 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	
Psychiatric disorders	<2%
Mood disorders	
Psychotic disorders	
Anxiety	
Substance abuse	
Other conditions (e.g., PTSD and ADHD)	
Other medical disorders	3.5%
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

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

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