

### **CRITICAL CARE MEDICINE** Blueprint

For traditional, 10-year Maintenance of Certification (MOC) exam

# ABIM invites diplomates to help develop the Critical Care Medicine MOC exam blueprint

Based on feedback from physicians that MOC assessments should better reflect what they see in practice, in 2016 the American Board of Internal Medicine (ABIM) invited all certified Critical Care Medicine specialists to provide ratings of the relative frequency and importance of blueprint topics in practice.

This review process, which resulted in a new MOC exam blueprint, will be used on an ongoing basis to inform and update all MOC assessments created by ABIM. No matter what form ABIM's assessments ultimately take, they will need to be informed by front-line clinicians sharing their perspective on what is important to know.

A sample of approximately 300 Critical Care Medicine specialists similar to the total invited population of Critical Care Medicine Specialists in age, gender, time spent in direct patient care, and geographic region of practice, provided the blueprint topic ratings. ABIM used this feedback to update the blueprint for MOC assessments (beginning with the Spring 2017 administration of the traditional, 10-year MOC exam).

To inform how assessment content should be distributed across the major blueprint content categories, ABIM considered the average respondent ratings of topic frequency and importance in each of the content categories.

To determine prioritization of specific assessment content within each major medical content category, ABIM used the respondent ratings of topic frequency and importance to set thresholds for these parameters in the exam assembly process (described further under *Detailed content outline* below).

### Purpose of the Critical Care Medicine MOC Assessments

The MOC exams are designed to evaluate whether a certified Critical Care Medicine specialist has maintained competence and currency in the knowledge and judgment required for practice. The MOC assessments emphasize diagnosis and management of prevalent conditions, particularly in areas where practice has changed in recent years. As a result of the blueprint review by ABIM diplomates, MOC assessments place less emphasis on rare conditions and focus more on situations in which physician intervention can have important consequences for patients. For conditions that are usually managed by other specialists, the focus is on recognition rather than on management.

#### **Assessment format**

The traditional, 10-year MOC exam contains up to 220 single-best-answer multiple-choice questions, of which approximately 50 are new questions that do not count in the examinee's score. Examinees taking the traditional, 10-year MOC exam will have access to an external resource (i.e., UpToDate®) for the entire exam.

ABIM's Longitudinal Knowledge Assessment (LKA™) for MOC, slated to launch in 2023, is a five-year cycle in which physicians answer questions on an ongoing basis and receive feedback on how they're performing along the way. More information on how assessments are developed can be found at 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

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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.

Clinical scenarios presented take place in inpatient settings as appropriate to a typical critical care medicine practice. Clinical information presented may include various media illustrating relevant findings, such as diagnostic imaging studies. Some questions require interpretation of pictorial material, such as pressure tracings, ultrasound scans, magnetic resonance imaging scans, electrocardiograms, radiographs, computed tomograms, radionuclide scans, and photomicrographs.

Tutorials for the MOC exam, including examples of question format, can be found at abim.org/maintenance-of-certification/exam-information/critical-care-medicine/exam-tutorial.aspx.

#### **Content distribution**

Listed below are the major medical content categories that define the domain for the Critical Care Medicine traditional, 10-year MOC exam and the LKA assessments. The relative distribution of content is expressed as a percentage of the total exam. To determine the content distribution, ABIM considered the average respondent ratings of topic frequency and importance. Informed by these data, the Critical Care Medicine Approval Committee and Board have determined the medical content category targets, shown below.

CONTENT CATEGORY	Target %
Renal, Endocrine, and Metabolic Disorders	15%
Cardiovascular Disorders	17.5%
Pulmonary Disease	20%
Infectious Disease	12%
Gastrointestinal Disorders	5%
Neurologic Disorders	9.5%
Hematologic and Oncologic Disorders	5.5%
Surgery, Trauma, and Transplantation	<b>7</b> %
Pharmacology and Toxicology	4.5%
Research, Administration, and Ethics	2%
Critical Care Ultrasound Scanning	2%
Total	100%

Assessment questions in the content areas above may also address clinical topics in general internal medicine that are relevant to the practice of critical care medicine (including some general pediatrics with an emphasis on adolescent medicine).

## How the blueprint ratings are used to assemble the MOC assessment

Blueprint reviewers provided ratings of relative frequency in practice for each of the detailed content topics in the blueprint and provided ratings of the relative importance of the topics for each of the tasks described in *Assessment format* above. In rating importance, reviewers were asked to consider factors such as the following:

- · High risk of a significant adverse outcome
- Cost of care and stewardship of resources
- Common errors in diagnosis or management
- · Effect on population health
- · Effect on quality of life
- When failure to intervene by the physician deprives a patient of significant benefit

Frequency and importance were rated on a three-point scale corresponding to low, medium, or high. The median importance ratings are reflected in the *Detailed content* outline below. The Critical Care Medicine Approval Committee and Board, in partnership with the physician community, have set the following parameters for selecting MOC assessment questions according to the blueprint review ratings:

- At least 70% of questions will address high-importance content (indicated in green)
- No more than 30% of questions will address mediumimportance content (indicated in yellow)
- No questions will address low-importance content (indicated in red)

Independent of the importance and task ratings, no more than 15% of questions will address low-frequency content (indicated by "LF" following the topic description).

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The content selection priorities below are applicable beginning with the Spring 2017 traditional, 10-year MOC exam and are subject to change in response to future blueprint review.

**Note:** The same topic may appear in more than one medical content category.

### Detailed content outline for the Critical Care Medicine traditional, 10-year MOC exam



— **High Importance**: At least 70% of questions will address topics and tasks with this designation.

**RENAL, ENDOCRINE, AND** 

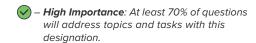


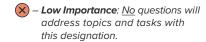
/ – **Medium Importance**: No more than 30% of questions will address topics and tasks with this designation.



(X) – **Low Importance**: <u>No</u> questions will address topics and tasks with this designation.

METABOLIC DISORDERS (15% of exam)	Di	agnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
SODIUM-WATER BALANCE (2% of exam	n)					
Hyponatremia						
Syndrome of inappropriate antidiuretic hormone secretion		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Cerebral salt wasting	LF	<b>✓</b>			<b>⊘</b>	<b>⊘</b>
Psychogenic polydipsia	LF	<b>✓</b>			<b>⊘</b>	×
Hypothyroidism		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
latrogenic		<b>⊘</b>	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>
Exercise-induced	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Hypernatremia						
Central diabetes insipidus	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Nephrogenic diabetes insipidus	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Osmotic diuresis		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Primary hypodipsia	LF	×	×	×	×	×
Dehydration		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Gastrointestinal fluid losses		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hypervolemia		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hypovolemia		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>





X

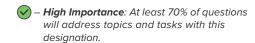
LF - Low Frequency: No more than 15% of questions will address topics with this designation, regardless of task or importance.

RENAL, ENDOCRINE, AND METABOLIC DISORDERS continued (15% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
POTASSIUM DISORDERS (<2% of exam)					
Hyperkalemia					
Pseudohyperkalemia	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Drug-induced	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Adrenal insufficiency	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hypokalemia					
Vomiting	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Diarrhea	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
Renal losses					
Drug-induced	$\bigcirc$	<b>⊘</b>			<b>Ø</b>
ACID-BASE DISORDERS (4.5% of exam)					
Metabolic acidosis					
Increased anion gap					
Lactic acidosis	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Ketoacidosis	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>
Hypoalbuminemia			<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Normal anion gap					
Diarrhea		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Saline resuscitation-associated	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>
Drug-induced	<b>⊘</b>	<b>(</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>

myeloma

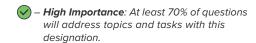
Decreased anion gap in multiple

LF



 Low Importance: No questions will address topics and tasks with this designation.

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RENAL, ENDOCRINE, AND METABOLIC DISORDERS continued (15% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
ACID-BASE DISORDERS continued (4.5%	of exam)				
Metabolic alkalosis					
Diuretic-induced (contraction alkalosis)	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Other metabolic alkalosis topics (parenteral nutrition-induced, complications of citrate anticoagulation)	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>×</b>	<b>×</b>
Mixed acid-base disorders	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Respiratory acidosis	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Respiratory alkalosis	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>✓</b>
TOXIC INGESTIONS (<2% of exam)					
High osmolar gap					
Ethanol	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Methanol LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Isopropyl alcohol LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Ethylene glycol LF	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	
Propylene glycol LF	<b>⊘</b>	<b>⊘</b>		<b>⊘</b>	×
Normal osmolar gap			,		
Salicylates LF	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
CALCIUM, PHOSPHATE, AND MAGNESIUM	DISORDERS (<29	% of exam)			
Hyperphosphatemia	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Hypophosphatemia	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Hypercalcemia	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hypocalcemia	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hypermagnesemia LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Hypomagnesemia	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×



Low Importance: No questions will address topics and tasks with this designation.

RENAL, ENDOCRINE, AND METABOLIC DISORDERS continued (15% of exam)		Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
HYPERAMMONEMIA <2% of exam)	<u>'</u>	1				
Hyperammonemia		<b>⊘</b>		<b>⊘</b>		<b>⊘</b>
DIABETES MELLITUS (EXCLUDING I	DIABETI	C KETOACIDOSI	S) AND ENERG	Y METABOLISM (<	2% of exam)	
Hyperglycemic hyperosmolar state		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hyperglycemia		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hypoglycemia		$\bigcirc$	$\bigcirc$	$\bigcirc$		<b>⊘</b>
THYROID DISORDERS (<2% of exam,	)					
Hypothyroidism		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hyperthyroidism	LF	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Nonthyroidal illness syndrome			<b>⊘</b>		<b>⊘</b>	
PARATHYROID DISORDERS (<2% of	exam)					
Parathyroid disorders	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
ADRENAL DISORDERS (<2% of exam	n)					
Adrenal insufficiency						
Relative adrenal insufficiency in critical illness		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Adrenal excess	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Addison disease*	LF	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×	×
PITUITARY DISORDERS (<2% of example)	n)					
Pituitary disorders	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
TUMOR-RELATED SYNDROMES (<2	% of exa	 m)				
Tumor-related syndromes		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
ACUTE KIDNEY INJURY (<2% of example)	n)					
Contrast-induced		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Pigment-induced	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Oncology-related	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×



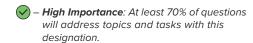
Low Importance: No questions will address topics and tasks with this designation.

RENAL, ENDOCRINE, AND METABOLIC DISORDERS continued (15% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
ACUTE KIDNEY INJURY continued (<2% o	of exam)				
Pre-renal disease	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Intrinsic disease					
Glomerulonephritis LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Interstitial nephritis	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Rhabdomyolysis	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Acute tubular necrosis	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>
Renal replacement therapy	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	$\bigcirc$	<b>⊘</b>
CARDIOVASCULAR DISORDERS (17.5% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
ACUTE CORONARY SYNDROMES (<2% of 6	exam)				
Unstable angina pectoris and non-ST-seg	ment elevation my	ocardial infar	ction (NSTEMI)	T	I
Unstable angina pectoris	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
NSTEMI	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>
ST-segment-elevation myocardial infarction	on (STEMI)				
Diagnosis	$\bigcirc$	$\bigcirc$		Not Applicable	
Complications					
Heart failure, cardiogenic shock	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>
Ventricular septal defect LF	<b>⊘</b>		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Acute mitral regurgitation	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Ventricular wall rupture LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Electrical conduction abnormalities	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Right ventricular failure	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Arrhythmias	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	$\bigcirc$	<b>⊘</b>
					T.



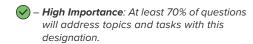
Low Importance: No questions will address topics and tasks with this designation.

CARDIOVASCULAR DISORDERS continued			Treatment/	Risk Assessment/ Prognosis/	Pathophysiology/
(17.5% of exam)	Diagnosis	Testing	Care Decisions	Epidemiology	Basic Science
ACUTE CORONARY SYNDROMES conti	nued (<2% of exam)				
Cocaine-related ischemia	LF 🕜	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
ARRHYTHMIAS (<2% of exam)					
Supraventricular tachycardia					
Atrial fibrillation	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Atrial flutter	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>	
Multifocal atrial tachycardia	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Pre-excitation syndromes	LF 🕜		<b>⊘</b>	×	×
Paroxysmal supraventricular tachycardia (atrioventricular [AV] nodal reentrant tachycardia)	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Ventricular arrhythmias					
Nonsustained ventricular tachycardia	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>		<b>⊘</b>
Monomorphic ventricular tachycardia	<b>②</b>	<b>⊘</b>	<b>②</b>		<b>⊘</b>
Polymorphic ventricular tachycardia	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>		<b>⊘</b>
Ventricular fibrillation	<b>⊘</b>	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>
Accelerated idioventricular rhythm	<b>⊘</b>	<b>⊘</b>		<b>⊘</b>	
Long QT syndrome	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Brugada syndrome	LF 🗸			×	×
Bradyarrhythmias					
Sinus bradycardia	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Sinoatrial exit block	LF 🕜	<b>⊘</b>	<b>⊘</b>	×	×
Atrioventricular block	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Pacemakers and defibrillators	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>		<b>⊘</b>



 Low Importance: No questions will address topics and tasks with this designation.

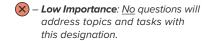
CARDIOVASCULAR DISORDERS continued (17.5% of exam)		Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
HEART FAILURE (3.5% of exam)		Diagnosis	resumg	Cure Decisions	Epideimology	Dusio Colendo
Heart failure with reduced ejection fraction (HFrEF)		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	
Heart failure with preserved ejection fraction (HFpEF)		$\bigcirc$	$\bigcirc$	<b>⊘</b>		<b>⊘</b>
HEMODYNAMIC MONITORING (5.5%	of exam	1)				
Interpretation of arterial catheterization		<b>Ø</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	
Pulmonary arterial catheterization	LF				×	
Central venous catheterization		$\bigcirc$	$\bigcirc$	$\bigcirc$		<b>⊘</b>
Non-invasive hemodynamic monitoring		$\bigcirc$	$\bigcirc$	<b>⊘</b>	$\otimes$	<b>×</b>
VASCULAR DISORDERS (<2% of exam	7)					
Aortic dissection and aneurysm						
Aortic dissection	LF	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Aortic aneurysm and transection	LF	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Shock		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Hypertensive emergency and urgency		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>Ø</b>
VALVULAR HEART DISEASE (<2% of e	exam)					
Mitral stenosis	LF	<b>⊘</b>	<b>/</b>	<b>✓</b>	<b>⊘</b>	<b>⊘</b>
Aortic stenosis		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Aortic regurgitation		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Mitral regurgitation		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Endocarditis		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Structural defects						
Atrial	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Ventricular	LF	<b>/</b>	<b>⊘</b>	<b>⊘</b>	✓	×



Low Importance: No questions will address topics and tasks with this designation.

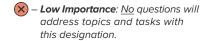
CARDIOVASCULAR DISORDERS continued	;				Risk Assessment/	
(17.5% of exam)		Diagnosis	Testing	Treatment/ Care Decisions	Prognosis/ Epidemiology	Pathophysiology/ Basic Science
PERICARDIAL DISEASE (<2% of example)	m)			·		
Pericarditis		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Cardiac tamponade		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
MYOCARDIAL DISEASE (<2% of example)	m)					
Myocarditis	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Hypertrophic cardiomyopathy	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Peripartum cardiomyopathy	LF				<b>⊘</b>	×
Stress cardiomyopathy					<b>⊘</b>	<b>⊘</b>
MECHANICAL CIRCULATORY SUPP	ORT (<2	% of exam)				
Intraaortic balloon pump (IABP) counterpulsation		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Extracorporeal membrane oxygenation (ECMO)	LF		<b>⊘</b>	<b>⊘</b>		<b>⊘</b>
Ventricular assist devices (VADs)	LF			<b>⊘</b>	<b>⊘</b>	<b>✓</b>
TRANSPLANTED HEART (<2% of exa	am)					
Transplanted heart	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
PULMONARY DISEASE (20% of exam)		Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
RESPIRATORY FAILURE (2% of exam	٦)	,				
Hypoxemic		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hypercapnic		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
MECHANICAL VENTILATION (6% of	exam)					
Initiation and maintenance of mech	nanical v	ventilation				
Endotracheal intubation and tracheostomy		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Modes		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Oxygenation		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>



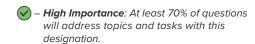


PULMONARY DISEASE				Risk Assessment/	
continued (20% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Prognosis/ Epidemiology	Pathophysiology/ Basic Science
MECHANICAL VENTILATION continued (69	% of exam)				
Initiation and maintenance of mechanical	ventilation continu	ued			
Ventilation (CO2)	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Waveforms	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Respiratory system compliance (lung mechanics)	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Complications of mechanical ventilation					
Barotrauma	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Bronchopleural fistula	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Ventilator-induced lung injury	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Dynamic hyperinflation (auto-PEEP)	<b>⊘</b>	<b>⊘</b>	⊗	<b>⊘</b>	<b>⊘</b>
Intracardiac shunt LF	<b>⊘</b>		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Complications of endotracheal tubes and tracheostomy	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Liberation from mechanical ventilation	<b>⊘</b>	$\bigcirc$	⊗	<b>⊘</b>	<b>⊘</b>
Noninvasive ventilation	$\bigcirc$	$\bigcirc$		$\bigcirc$	$\bigcirc$
AIRWAY DISEASE (2% of exam)					
Upper airway disease					
Upper airway obstruction	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Tracheoesophageal fistula LF	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Intubation-related laryngeal edema	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Anaphylactic airway edema and increased negative inspiratory LF pressure	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Airway control	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Asthma	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Chronic obstructive pulmonary disease (COPD)	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>



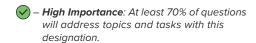


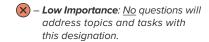
PULMONARY DISEASE continued				Treatment/	Risk Assessment/	Dathanhusialaw./
(20% of exam)		Diagnosis	Testing	Care Decisions	Prognosis/ Epidemiology	Pathophysiology/ Basic Science
PARENCHYMAL LUNG DISEASE (5	% of exam					
Acute respiratory distress syndrome (ARDS)		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Pneumonia						
Community-acquired pneumonia	(CAP)					
Typical bacterial		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Atypical bacterial		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Aspiration		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Viral		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
Fungal	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hospital-acquired pneumonias a	nd immur	nocompromised	d hosts			
Ventilator-associated pneumon (VAP)	ia	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hematogenous pneumonia	LF	<b>⊘</b>		<b>⊘</b>	<b>⊘</b>	×
Aspergillus pneumonia	LF	<b>⊘</b>		<b>⊘</b>	<b>⊘</b>	×
Non-Aspergillus pneumonia	LF	<b>⊘</b>		<b>⊘</b>	<b>⊘</b>	×
Pneumocystis jirovecii pneumonia	LF	<b>⊘</b>	$\bigcirc$	<b>⊘</b>		
Viral pneumonia			<b>✓</b>		<b>⊘</b>	×
Noncardiogenic pulmonary edema	a					
Neurogenic	LF	$\bigcirc$	<b>(</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Tocolytic	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Negative-pressure	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
High-altitude	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Interstitial lung disease	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>Ø</b>	<b>⊘</b>
Diffuse alveolar hemorrhage		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>Ø</b>	<b>⊘</b>
Atelectasis		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>



Low Importance: No questions will address topics and tasks with this designation.

PULMONARY DISEASE continued (20% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
PULMONARY VASCULAR DISORDERS	(2% of exam)				
Pulmonary thromboembolism					
Deep venous thrombosis (DVT)	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Pulmonary embolism (PE)	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	$\bigcirc$
Nonthrombotic embolism					
Air	LF 🕢	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Tumor	LF 🗸	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Septic	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Pulmonary hypertension	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Acute chest syndrome in sickle cell disease	LF 🗸	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>×</b>
Pulmonary vasculitis	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hepatopulmonary syndrome	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
HEMOPTYSIS (<2% of exam)					
Massive	LF 💮	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Submassive	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
PLEURAL DISORDERS (2% of exam)					
Pleural effusion					
Infectious (empyema)	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Noninfectious	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Pneumothorax	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hemothorax	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>



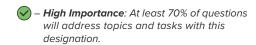


INFECTIOUS DISEASE (12% of exam)		Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
SYSTEMIC INFECTIONS (<2% of example)	n)				•	
Sepsis and septic shock		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>
Bacterial infections (typical and aty	pical)					
Tuberculosis	LF	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>✓</b>	<b>⊘</b>
Atypical mycobacterial infections		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Nocardiosis	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Listeriosis	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Brucellosis	LF	×	×	×	×	×
Typhoid fever	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Tularemia	LF	×	×	×	×	×
Plague	LF	<b>⊘</b>	<b>⊘</b>	<b>✓</b>	×	×
Rickettsial or Rickettsial-like infection	ons	'				,
Rocky Mountain spotted fever	LF	<b>⊘</b>	<b>⊘</b>	<b>✓</b>	<b>⊘</b>	×
Erlichiosis/Anaplasmosis	LF	<b>⊘</b>	×	×	×	×
Spirochetal infections						
Lyme disease	LF	<b>⊘</b>		<b>⊘</b>	<b>Ø</b>	×
Leptospirosis	LF	$\otimes$	×	×	×	×
Fungal infections		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Viral infections		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Parasitic diseases						
Malaria	LF	<b>(</b>	<b>⊘</b>	×	×	×
Babesiosis	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Strongyloides hyperinfection syndrome	LF	<b>⊘</b>	$\otimes$	<b>×</b>	×	×
Giardiasis	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×



— Low Importance: No questions will address topics and tasks with this designation.

INFECTIOUS DISEASE continued (12% of exam)		Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
CENTRAL NERVOUS SYSTEM INFECT	IONS	(<2% of exam)				
Meningitis						
Bacterial						
Meningococcal		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>
Pneumococcal		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>
Syphilitic	LF	<b>⊘</b>	<b>⊘</b>	<b>✓</b>	<b>⊘</b>	×
Listerial	LF	$\bigcirc$	$\bigcirc$	$\bigcirc$	×	×
Fungal	LF	<b>(</b>	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	×
Mycobacterial	LF	<b>⊘</b>	<b>⊘</b>	<b>Ø</b>	<b>Ø</b>	×
Encephalitis					,	
Viral						
Herpes simplex virus		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
West Nile virus	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Rabies	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Parasitic	LF	<b>⊘</b>	<b>⊘</b>	×	×	×
Brain abscess	LF		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Epidural abscess	LF	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>Ø</b>	×
HEAD, NECK, AND UPPER AIRWAY IN	IFECT	IONS (<2% of exa	m)			
Eye and orbit	LF		<b>⊘</b>	×	×	×
Septic cavernous sinus thrombosis	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Soft tissue infections of the head and neck		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	<b>×</b>
Sinusitis	LF	$\bigcirc$	$\bigcirc$	×	×	×
Epiglottitis	LF	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×



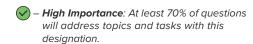
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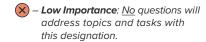
INFECTIOUS DISEASE continued (12% of exam)		Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
CARDIOVASCULAR INFECTIONS (<29	% of ex	ram)				
Pericarditis		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Endocarditis		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Device-related infections		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Catheter-related infections (peripheral, central venous, arterial, pulmonary artery)		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
GASTROINTESTINAL AND INTRA-AB	DOMI	NAL INFECTIONS	(<2% of exam)			
Esophageal	LF		<b>⊘</b>	<b>⊘</b>	×	×
Liver	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Gallbladder and biliary		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Pancreatitis						
Necrotizing (infected)		$\bigcirc$	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>
Pancreatic abscess	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Gastroenteritis						
Community-acquired bacterial		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Colitis and diverticulitis						
Clostridioides (Clostridium) difficile-associated		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Parasitic	LF	<b>⊘</b>	<b>⊘</b>	×	×	×
Necrotizing enterocolitis (typhlitis)	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Cytomegalovirus colitis	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Peritonitis		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Small intestine and appendix		<b>⊘</b>	<b>⊘</b>	<b>Ø</b>	<b>⊘</b>	×
GENITOURINARY TRACT INFECTION	S (<2%	% of exam)				
Cystitis, including catheter-related		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Pyelonephritis		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Perinephric abscess	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×



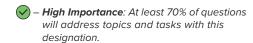
X – Low Importance: No questions will address topics and tasks with this designation.

INFECTIOUS DISEASE					
continued (12% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
SOFT TISSUE, BONE, AND JOINT INFEC	TIONS (<2% of exam)				1
Bites L	F /	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Septic arthritis	F 🕢	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
INFECTIONS ASSOCIATED WITH NONVA	SCULAR TRANSCU	TANEOUS CATH	HETERS (<2% of exa	am)	
Infections associated with nonvascular transcutaneous L catheters	F	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
ANTIMICROBIAL THERAPY AND RESIST	ANCE (<2% of exam)				
Nonallergic toxicity	<b>⊘</b>	<b>⊘</b>	<b>Ø</b>	<b>⊘</b>	×
Allergic reactions	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>
Resistant organisms					
Gram-positive organisms	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Gram-negative organisms	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Fungi and inherent susceptibility patterns and resistance		<b>⊘</b>			×
PHARMACOKINETICS (<2% of exam)					
Pharmacokinetics	Not Applicable	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
INFECTIONS IN IMMUNOCOMPROMISE	D HOSTS (<2% of exa	am)			
Opportunistic infections in human immunodeficiency virus (HIV) infection	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Neutropenia	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Transplantation					
Solid organ L	F	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Hematopoietic cell L	F	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Asplenia L	F	<b>⊘</b>	<b>Ø</b>	<b>⊘</b>	×
Corticosteroid immunosuppression	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>



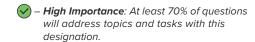


INFECTIOUS DISEASE continued (12% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
VIRULENCE FACTORS (<2% of exam)					
Toxic shock	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
BIOTERRORISM (<2% of exam)					
Bioterrorism LF	$\bigcirc$	<b>⊘</b>	<b>Ø</b>	<b>⊘</b>	×
HOSPITAL INFECTION CONTROL (<2% of ex	am)				
Hospital infection control	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
GASTROINTESTINAL DISORDERS (5% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
ESOPHAGUS (<2% of exam)					
Corrosive injury LF	<b>⊘</b>	<b>⊘</b>	<b>Ø</b>	<b>⊘</b>	×
Perforation and rupture	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>	$\otimes$
Fistula LF				×	×
STOMACH (<2% of exam)					
Peptic ulcer disease	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>
Non-peptic ulcer disease	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Perforation LF	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>×</b>
Mechanical disorders				<b>⊘</b>	×
SMALL INTESTINE (<2% of exam)					
Perforation	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
Hemorrhage	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>	$\otimes$
Mechanical and motility disorders		<b>⊘</b>	<b>⊘</b>	×	$\otimes$
Inflammatory bowel diseases				<b>⊘</b>	$\otimes$



Low Importance: No questions will address topics and tasks with this designation.

GASTROINTESTINAL DISORDERS continued (5% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
LARGE INTESTINE (<2% of exam)				1	1
Perforation	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
Hemorrhage	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>×</b>
Mechanical and motility disorders	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	<b>×</b>
Colonic ischemia	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
LIVER (<2% of exam)					
Hepatitis					
Viral	<b>⊘</b>	<b>⊘</b>	<b>✓</b>	<b>⊘</b>	×
Autoimmune L	.F 🕜	<b>⊘</b>	<b>⊘</b>	×	×
Alcohol- and drug-induced	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Toxin and solvent exposure	.F 🕜	<b>⊘</b>	<b>⊘</b>	×	<b>×</b>
Ischemic (shock liver)	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Budd-Chiari syndrome	.F	<b>(</b>	<b>⊘</b>	×	×
Portal hypertension					
Esophageal variceal hemorrhage	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Gastric variceal hemorrhage	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Spontaneous bacterial peritonitis	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
Hepatorenal syndrome	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hepatopulmonary syndrome	.F	<b>⊘</b>	<b>✓</b>	<b>⊘</b>	<b>⊘</b>
Portopulmonary hypertension	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×



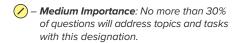
 Low Importance: No questions will address topics and tasks with this designation.

GASTROINTESTINAL DISORDER continued (5% of exam)	RS	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
LIVER continued (<2% of exam)						
Fulminant hepatic failure						
Infection	LF	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
Alcohol- and drug-induced		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Tumor	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Infiltrative diseases and nonalcoholic steatohepatitis (NASH)		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>×</b>
Toxin exposure	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Encephalopathy		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>/</b>
Cerebral edema		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>/</b>
Hypotension		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
PANCREAS (<2% of exam)				- I		
Pancreatitis						,
Infectious	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Gallbladder disease		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
Tumor	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Alcohol- and drug-induced		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Toxin exposure	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Hypertriglyceridemia-induced	LF	<b>⊘</b>	<u> </u>	<b>⊘</b>	×	×
Complications		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
GALLBLADDER AND BILIARY TRAC	<b>T</b> (<2% c	of exam)		l	I	1
Cholecystitis, calculous and acalculous		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Cholangitis		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>/</b>	×



X – Low Importance: No questions will address topics and tasks with this designation.

NEUROLOGIC DISORDERS (9.5% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
BRAIN DEATH (<2% of exam)					
Brain death	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
CEREBROVASCULAR DISEASE (2.5% of example)	m)				
Ischemic stroke	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Intracerebral hemorrhage	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>
Subarachnoid hemorrhage and aneurysm					
Complications					
Vasospasm	$\bigcirc$	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>
Other subarachnoid hemorrhage and aneurysm topics (hydrocephalus)	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Cerebral vein and sinus thrombosis LF	<b>⊘</b>	<b>/</b>	<b>⊘</b>	<b>⊘</b>	×
SEIZURES AND STATUS EPILEPTICUS (<2%	of exam)				,
Seizures complicating critical illness					
Seizures during critical illness	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Pre-existing epilepsy in critically ill patients	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Status epilepticus					
Generalized convulsive status epilepticus	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Nonconvulsive status epilepticus	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>
Electroencephalogram (EEG) monitoring in the intensive care unit (ICU)	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	*
Repetitive seizures	<b>Ø</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
NEUROGENIC PULMONARY EDEMA (<2% o	f exam)				
Neurogenic pulmonary edema LF	<b>(</b>	<b>⊘</b>		<b>⊘</b>	×



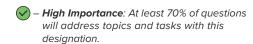
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NEUROLOGIC DISORDERS					Risk Assessment/	
continued (9.5% of exam)		Diagnosis	Testing	Treatment/ Care Decisions	Prognosis/ Epidemiology	Pathophysiology/ Basic Science
NEUROMUSCULAR RESPIRATORY	FAILURE	(<2% of exam)				
Guillain-Barre syndrome	LF	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Critical illness myopathy		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Critical illness polyneuropathy		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Tetanus	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Myasthenia gravis	LF	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
Botulism	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
INCREASED INTRACRANIAL PRES	SURE (<2	% of exam)				
Increased intracranial pressure		$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>
HEAD TRAUMA (<2% of exam)	•					
Nonpenetrating head trauma		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Penetrating head trauma	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
SPINAL CORD INJURY (<2% of exam	n)					
Cervical spine injury	LF	<b>⊘</b>	<b>⊘</b>	<b>✓</b>	<b>⊘</b>	×
Thoracic spine injury	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
COMA, ENCEPHALOPATHY, AND D	ELIRIUM	(<2% of exam)				
Anoxic/hypoxic brain injury		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
Metabolic encephalopathy		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Drug-induced encephalopathy		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Drug and alcohol withdrawal		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
ICU-related delirium		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Targeted temperature management*		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
ANALGESIA, SEDATION, AND NEUF	ROMUSC	ULAR JUNCTION	I BLOCKADE (2	2% of exam)	1	1
Analgesia		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>Ø</b>
Sedation		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Neuromuscular junction blockade		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>Ø</b>



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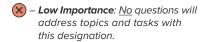
HEMATOLOGIC AND ONCOLOGIC				Risk Assessment/	
DISORDERS (5.5% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Prognosis/ Epidemiology	Pathophysiology/ Basic Science
RED BLOOD CELL DISEASES (<2% of example)	m)		'		1
Anemias	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Polycythemias LF		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Hemoglobinopathies LF		<b>⊘</b>		×	×
WHITE BLOOD CELL DISEASES (<2% of e	xam)				
Leukopenia (immune, drug-related)		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Leukemias LF		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Lymphoma	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Multiple myeloma LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
PLATELET DISORDERS (<2% of exam)					
Thrombocytosis	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Thrombocytopenia	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Platelet dysfunction	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
COAGULOPATHIES (<2% of exam)					
Disseminated intravascular coagulation (DIC)	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Factor deficiencies LF				<b>⊘</b>	×
Anticoagulant associated coagulopathy	<b>②</b>	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>
Hypothermia	<b>⊘</b>		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hemorrhagic shock	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
HYPERCOAGULABLE STATES (<2% of exa	nm)				
Proteins C and S, and antithrombin deficiency		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
Factor V Leiden mutation	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Malignancy	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
Hormone replacement therapy and oral contraceptives		<b>⊘</b>	<b>⊘</b>	×	×
Antiphospholipid antibody syndrome			<b>⊘</b>	<b>⊘</b>	$\otimes$



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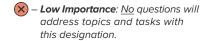
DISORDERS continued				Treatment/	Risk Assessment/ Prognosis/	Pathophysiology/
(5.5% of exam)		Diagnosis	Testing	Care Decisions	Epidemiology	Basic Science
TRANSFUSION MEDICINE (<2% of 6	exam)					
Blood products		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Apheresis	LF				<b>⊘</b>	×
Adverse effects		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Massive blood transfusion		$\bigcirc$	$\bigcirc$	<b>⊘</b>	$\bigcirc$	<b>⊘</b>
Transfusion refusal	LF	×	×		×	Not Applicable
SOLID TUMORS (<2% of exam)						
Solid tumors		<b>⊘</b>	<b>⊘</b>	<b>✓</b>	<b>⊘</b>	×
ONCOLOGIC SYNDROMES (<2% of	exam)					
Superior vena cava syndrome	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Tumor lysis syndrome	LF	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Spinal cord compression	LF	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hyperviscosity syndrome	LF	<b>⊘</b>	<u> </u>	<b>⊘</b>	<b>⊘</b>	×
Hypercalcemia			$\bigcirc$	$\bigcirc$	<b>⊘</b>	
HEMATOPOIETIC CELL TRANSPLA	NTATION	(<2% of exam)				
Graft-versus-host disease	LF	<b>⊘</b>	<b>/</b>	<b>✓</b>	×	×
Hepatic sinusoidal obstruction syndrome (veno-occlusive disease	e) LF	<b>Ø</b>	<b>⊘</b>	<b>⊘</b>	×	8
Respiratory distress		$\bigcirc$	$\bigcirc$		<b>⊘</b>	
COMPLICATIONS OF IMMUNOSUP	PRESSIV	E DRUGS AND C	HEMOTHERAP	Y (<2% of exam)		
Cyclosporine	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Corticosteroids		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Alkylating agents	LF	<b>⊘</b>	×	×	×	×
Methotrexate	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×



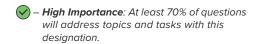


HEMATOLOGIC AND ONCOLOGI DISORDERS continued (5.5% of exam)	С	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
COMPLICATIONS OF IMMUNOSUPP	RESSIV	E DRUGS AND C	HEMOTHERAP	Y continued (<2%	of exam)	
Sirolimus	LF	<b>⊘</b>	×	×	×	×
Tacrolimus	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Mycophenolate mofetil	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Azathioprine	LF	<b>⊘</b>	<b>⊘</b>	<b>Ø</b>	×	×
SURGERY, TRAUMA, AND TRANSPLANTATION (7% of exam)		Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
CARDIOVASCULAR AND VASCULAR	SURGE	ERY (<2% of exam	1)			
Cardiac		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Mediastinal disease		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Vascular, aortic and peripheral		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Thoracic		$\bigcirc$	<b>/</b>	<b>✓</b>	<b>⊘</b>	×
ABDOMINAL AND GASTROINTESTIN	NAL (<29	% of exam)				
Acute abdomen		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Postoperative complications		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Mesenteric ischemia and ischemic colitis		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
Abdominal compartment syndrome	e LF	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
GENITOURINARY AND OBSTETRIC	EMERG	ENCIES (<2% of e	exam)			
Urologic		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Obstetric	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
SKIN AND SOFT TISSUES AND EXTE	REMITIE	<b>S</b> (<2% of exam)				
Soft tissue infections		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Crush injury, myonecrosis, and rhabdomyolysis		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Necrotizing fasciitis	LF	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Acute compartment syndrome	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×





SURGERY, TRAUMA, AND TRANSPLANTATION continued (7% of exam)		Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
ENVIRONMENTAL INJURY (3.5% of ex	am)		1009			
Inhalation injury	LF	<b>⊘</b>	<b>✓</b>	<b>⊘</b>	<b>⊘</b>	×
Hypothermia	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Submersion injury, near-drowning, and diving trauma	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>×</b>	<b>×</b>
Altitude injury	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Electrical injury and lightning strike	LF	<b>⊘</b>	×	<b>⊘</b>	×	×
Radiation injury	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Bioterrorism, noninfectious	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Heatstroke	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Burn injury	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
GENERAL POSTOPERATIVE MANAGE	MENT	(<2% of exam)				
General postoperative management		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
TRAUMA (<2% of exam)						
Flail chest	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>(</b>	<b>⊘</b>
Pulmonary contusion		<b>⊘</b>	<b>/</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hemothorax		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×
Great vessel injury	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
Airway injury, tracheobronchial laceration and rupture	LF	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Foreign body aspiration	LF	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Blunt myocardial injury	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Fat embolism syndrome	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>Ø</b>	×
Intra-abdominal injury	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>Ø</b>	×
Massive bleeding		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Shock		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>



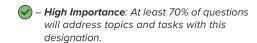
 Low Importance: No questions will address topics and tasks with this designation.

SURGERY, TRAUMA, AND TRANSPLANTATION continued (7% of exam)		Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
TRANSPLANTATION (<2% of exam)						
Heart	LF	<b>⊘</b>	×	<b>⊘</b>	×	×
Lung	LF	<b>⊘</b>		<b>⊘</b>	×	×
Liver	LF	<b>⊘</b>	<b>(</b>	<b>⊘</b>	×	×
Kidney		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×
Pancreas and intestines	LF	×	×	×	×	×
Organ donation		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
PHARMACOLOGY AND TOXICO (4.5% of exam)	LOGY	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
BASIC PHARMACOLOGIC PRINCIPL	<b>.ES</b> (<2	% of exam)				
Pharmacokinetics		Not Applicable	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>
Dosing adjustments for disease sta	ates	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
DRUG-DRUG INTERACTIONS (<2% of	of exam	)				,
Drug-drug interactions		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
ADVERSE EFFECTS OF DRUGS (<2%	% of exa	nm)				
Immunologic allergic reactions						
Anaphylaxis	LF	$\bigcirc$	<b>/</b>	<b>⊘</b>	<b>Ø</b>	<b>⊘</b>
Thrombotic thrombocytopenic purpura	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Stevens-Johnson syndrome	LF	$\bigcirc$	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	×
Nonimmunologic adverse effects o	f drugs	3				
Electrolyte and metabolic		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	$\bigcirc$
Hyperthermia	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Neurologic		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Renal		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Hematologic		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Cardiac		<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>



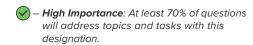
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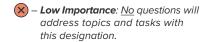
PHARMACOLOGY AND TOXICOL continued (4.5% of exam)	-OGY	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science		
TOXICOLOGY, DRUG OVERDOSE, AND POISONING (<2% of exam)								
Acetaminophen		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>		
Beta-adrenergic blockers		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>		
Calcium channel blockers		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>		
Cyanide	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×		
Tricyclic antidepressants		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>		
Nitroprusside	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×	×		
Oral antihyperglycemic agents		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>		
Organophosphates	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×		
Salicylates	LF	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>		
Sarin (nerve) gas	LF	×	×	×	×	×		
Selective serotonin reuptake inhibitors (SSRIs)		$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>		
Additional psychotropic drugs			<b>⊘</b>		<b>⊘</b>			
Scombroid food poisoning	LF	×	×	×	×	×		
Muscle relaxants	LF		<b>⊘</b>		<b>⊘</b>	×		
Xanthines	LF	$\bigotimes$	$\otimes$	×	×	×		
Iron toxicity	LF	×	×	×	×	×		
Antibiotic toxicity		$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>		
Carbon monoxide	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>		
Methemoglobinemia	LF	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>		



Low Importance: No questions will address topics and tasks with this designation.

RESEARCH, ADMINISTRATION, AND ETHICS (2% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science	
INTENSIVE CARE UNIT (ICU) ADMINISTRAT	TION (<2% of exam	))				
Regulatory issues		✓ – Ta	ask not otherwise	specified		
Intensive care unit (ICU) physical design	<ul> <li>Task not otherwise specified</li> </ul>					
Continuous quality improvement and patient safety	<ul><li>– Task not otherwise specified</li></ul>					
Isolation	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>	×	
STAFFING ISSUES (<2% of exam)						
Physician extenders in the intensive care unit (ICU)		<b>⊘</b> – Ta	ask not otherwise	specified		
Interactions between hospitalists and intensivists	- Task not otherwise specified					
MEDICOLEGAL INTERACTIONS (<2% of exa	nm)					
Medicolegal interactions		<b>⊘</b> – Ta	ask not otherwise	specified		
ETHICAL CONSIDERATIONS (<2% of exam)						
Patient autonomy	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	
Legal surrogates	<b>⊘</b>	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	
Informed consent for medical procedures	$\bigcirc$	$\bigcirc$	<b>⊘</b>	$\bigcirc$		
BRAIN DEATH (<2% of exam)						
Brain death	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>	
CONFLICT OF INTEREST (<2% of exam)						
Conflict of interest LF	<b>⊘</b>	<b>⊘</b>	<b>Ø</b>	<b>⊘</b>	<b>⊘</b>	
ADVANCE DIRECTIVES (<2% of exam)						
Advance directives	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	
PATIENT CONFIDENTIALITY AND HEALTH I (<2% of exam)	NSURANCE POR	TABILITY AND A	ACCOUNTABILITY	ACT (HIPAA) REG	ULATIONS	
Patient confidentiality and Health Insurance Portability and Accountability Act (HIPAA) regulations	<b>⊘</b>	<b>⊗</b>	<b>⊘</b>	<b>⊗</b>	<b>⊘</b>	





RESEARCH, ADMINISTRATION, AND ETHICS continued (2% of exam)		Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science	
END-OF-LIFE ISSUES (<2% of exam,					. 0		
End-of-life issues		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	
ORGAN DONATION (<2% of exam)							
Organ donation		<b>⊘</b>	<b>⊘</b>	<b>Ø</b>	<b>⊘</b>	<b>⊘</b>	
MEDICAL FUTILITY (<2% of exam)		'			1	,	
Medical futility		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	
MEDICAL RESEARCH (<2% of exam	)						
Clinical trial design	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	
Statistical analysis	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	
Institutional review boards	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	
TEACHING AND EDUCATION (<2%	of exam)						
Teaching formats	LF	<ul> <li>Task not otherwise specified</li> </ul>					
PSYCHOSOCIAL ISSUES (<2% of ex	am)						
Professionalism		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	Not Applicable	
Intensive care unit (ICU) burnout		<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	Not Applicable	
Impaired health-care professional	LF	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	Not Applicable	



Low Importance: No questions will address topics and tasks with this designation.

CRITICAL CARE ULTRASOUND SCANNING (2% of exam)	Diagnosis	Testing	Treatment/ Care Decisions	Risk Assessment/ Prognosis/ Epidemiology	Pathophysiology/ Basic Science
CARDIAC (<2% of exam)					
Cardiac	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>
PULMONARY (<2% of exam)					
Pulmonary	$\bigcirc$	<b>⊘</b>	<b>⊘</b>	×	<b>⊘</b>
ABDOMINAL (<2% of exam)					
Abdominal	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>	×
NEUROLOGIC (<2% of exam)					
Neurologic LF	×	×	×	×	×
VASCULAR (<2% of exam)					
Vascular	$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>⊘</b>	<b>⊘</b>