

# American College of Surgeons UME/GME Tools

- **ACS/APDS/ASE Resident Prep Curriculum (Students)**
- **ACS Entering Residency Readiness Assessment (ERRA)**
- **ACS Fundamental of Surgery Curriculum (FSC)**

# ACS/APDS/ASE Resident Prep Curriculum

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- **Strengthen MS4 Education**
- **Med School Graduates Better Prepared**
- **Improved Patient Safety**

# ACS/APDS/ASE Resident Prep Curriculum

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- **23 modules**
  - **Patient Assessment**
  - **Communication**
  - **Professionalism**
  - **Basic Skills**
  - **Etc**

# ACS Entering Resident Readiness Assessment (ERRA)

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- Formative assessment focused on decision-making at PGY-1 level
- Psychometrically rigorous, addressing focused areas for resident preparedness
- Forms include 40 cases that assess 12 Main Clinical Areas and 20 Topics (1-3 hours)
- Score reports provide data at individual resident and cohort (program) level for comparison with other participating programs nationwide
  - Reports identify specific areas of strength and aim to facilitate learning through ILPs between PD and resident
- Since its launch in 2018, more than 3,600 residents from across 152 general surgery residency programs have participated nationwide.

### ACS ERRA OVERALL RESULTS

Each clinical case is worth up to 1 point and all cases are weighted equally.

**The highest possible total score is 40 points.**

Your ACS ERRA score is:

<b>28.5</b>	The standard error of measurement is 1.09. Therefore, your mean score of 28.5 is accurate within $\pm 1.09$ points—a score ranging between <b>27.5</b> and between <b>29.6</b> .
You correctly made <b>71.4%</b> of the decisions in the 40 cases scored on the assessment.	

The **average score for all residents** who took the 2022 ACS ERRA is:

<b>26.12</b>	The standard deviation is 3.03 (or 7.5% for the percentage score); 68% of all test takers' raw scores were between 23.09 and 29.15.
(of 40, or <b>65%</b> correct)	

Resident: [REDACTED]  
ACS ERRA Score: **28.5** of 40, **71.4%** Correct

Clinical Topic Area	Potentially Harmful Actions <sup>a</sup>	Over the Response Limit <sup>b</sup>	Levels of Your Performance (Percent Correct)								National <sup>c</sup> Percent Correct (n = 840 Residents) Mean (SD)	
			<30%	30-39%	40-49%	50-59%	60-69%	70-79%	80-89%	90-99%		100%
<b>Acute kidney problems</b>												
– Anuria – no urine output	0/3	0									X	71% (19)
– Oliguria – low urine output	0/4	0					X					66% (17)
<b>Acute mental status change</b>												
– Combative/hallucinating	0/2	0									X	70% (21)
– Somnolence	0/1	0						X				73% (17)
<b>Acute neurological changes/deficits</b>												
– Secondary to ischemia	0/2	0						X				66% (17)
<b>Blood pressure changes</b>												
– Hypertension	1/3	0				X						66% (23)
– Hypotension	0/3	0								X		75% (21)
<b>Chest pain</b>												
– Chest pain	0/0	0									X	73% (21)
<b>Electrolyte imbalance</b>												
– Electrolyte derangement	1/3	0					X					61% (21)
<b>Fever</b>												
– Infection	0/2	0									X	61% (21)
– Interactions, reactions	0/1	0					X					61% (24)
– Specific causes	1/3	0		X								66% (20)
<b>Glucose imbalance</b>												
– Management of abnormal blood glucose	0/2	0			X							61% (26)
<b>Heart rhythm changes</b>												
– Irregular heartbeat	1/3	0					X					54% (17)
<b>Ischemic extremity</b>												
– Cold leg	0/2	1						X				64% (19)
– Secondary to injury	0/0	1							X			66% (17)
<b>Pain assessment &amp; management</b>												
– Abdominal pain (non-incisional)	2/3	1	X									57% (22)
– Non-abdominal pain	0/4	0								X		69% (21)
<b>Respiratory compromise</b>												
– Change in respiratory rate	0/3	0			X							60% (22)
– Hypoxemia	0/2	1					X					66% (18)
<b>Distributions of Resident Performance on Overall Assessment (Percent Correct)</b>												
<b>National<sup>c</sup> (N = 840 Residents)</b>	---	---	0%	0.4%	2.1%	17.9%	50.7%	27.0%	1.9%	0%	0%	<b>65% (7.5)</b> (Range: 30 – 86%)

<sup>a</sup>Potentially Harmful Actions: Number of potentially harmful actions taken compared to the total number of potentially harmful actions in the case identified by the reviewers.

<sup>b</sup>Excess Responses: Number of responses in excess of the allowable limit as defined in the case(s).

<sup>c</sup>National values are based on all residents who took the 2022 ACS ERRA.

POTENTIALLY HARMFUL ACTIONS

Because these actions represent potential safety concerns, if the resident report indicates that any potentially harmful actions were taken in any of these Clinical Topic Areas, we recommend that goals and actions around these be included in the residents' individual learning plans.

Clinical Topic Area	Potentially Harmful Actions
<b>Acute kidney problems</b>	
– Anuria – no urine output	<ol style="list-style-type: none"> <li>Mismanaging electrolytes in patients with renal insufficiency</li> <li>Ordering overly aggressive resuscitation</li> </ol>
– Oliguria – low urine output	<ol style="list-style-type: none"> <li>Over-investigation to determine cause</li> <li>Inappropriately managing blood pressure</li> </ol>
<b>Acute mental status changes</b>	
– Combative/hallucinating	<ol style="list-style-type: none"> <li>Failing to recognize underlying (medical) causes</li> <li>Using inappropriate treatments of medical causes</li> </ol>
– Somnolence	<ol style="list-style-type: none"> <li>Failing to recognize etiology resulting in over-treatment or over-investigation</li> </ol>
<b>Acute neurological changes/deficits</b>	
– Secondary to ischemia	<ol style="list-style-type: none"> <li>Failing to recognize impending CVA</li> </ol>
<b>Blood pressure changes</b>	
– Hypertension	<ol style="list-style-type: none"> <li>Failing to recognize etiology, resulting in wrong or delayed treatment</li> <li>Ordering overly aggressive treatment</li> </ol>
– Hypotension	<ol style="list-style-type: none"> <li>Failing to act for urgent etiologies</li> <li>Failing to recognize etiology, resulting in wrong or delayed treatment</li> </ol>
<b>Electrolyte imbalance</b>	
– Electrolyte derangement	<ol style="list-style-type: none"> <li>Failing to recognize signs of critical derangements</li> <li>Ordering excessive (unnecessary) investigation</li> <li>Failing to treat critical values</li> </ol>
<b>Fever</b>	
– Infection	<ol style="list-style-type: none"> <li>Failing to accurately identify fever source</li> </ol>
– Interactions/reactions	<ol style="list-style-type: none"> <li>Prescribing a wrong/contraindicated medication</li> </ol>
– Specific causes	<ol style="list-style-type: none"> <li>Failing to accurately identify fever source</li> <li>Over-investigation to determine cause</li> <li>Failing to recognize and treat unusual causes of fever</li> </ol>
<b>Glucose imbalance</b>	
– Management of abnormal blood glucose	<ol style="list-style-type: none"> <li>Prescribing the wrong route of administration for medications</li> <li>Prescribing the wrong medication based on acuity</li> </ol>
<b>Heart rhythm changes</b>	
– Irregular heartbeat	<ol style="list-style-type: none"> <li>Using inappropriate cardioversion</li> </ol>
<b>Ischemic extremity</b>	
– Cold leg	<ol style="list-style-type: none"> <li>Prescribing IV and/or PO anticoagulants that do not match patient acuity</li> </ol>
<b>Pain assessment &amp; management</b>	
– Abdominal pain (non-incisional)	<ol style="list-style-type: none"> <li>Ordering excessive investigation for non-operative etiologies</li> <li>Ordering incorrect investigation for operative etiologies</li> <li>Failing to act for emergent etiologies</li> </ol>



Fundamentals of  
Surgery Curriculum  
American College of Surgeons

# ACS Fundamentals of Surgery Curriculum<sup>®</sup>

- \$248/resident
- Enrollment opens March 17, 2023
- Available to PGY1 residents
- Complimentary admin account to track resident progress





FSC

# Fundamentals of Surgery Curriculum

American College of Surgeons

The screenshot shows the ACS Fundamentals of Surgery Curriculum interface. At the top, there is a blue header with the American College of Surgeons logo and text: "AMERICAN COLLEGE OF SURGEONS Inspiring Quality: Highest Standards, Better Outcomes 100+ years" on the left; "ACS Fundamentals of Surgery Curriculum®" in the center; and "AMERICAN COLLEGE OF SURGEONS | DIVISION OF EDUCATION Blended Surgical Education and Training for Life®" on the right. Below the header, on the left, is a "Resources" button with a hamburger menu icon. The main content area is split: the left side shows a photograph of a young girl in a pink dress lying in a hospital bed; the right side is a white panel with the question "What would you like to do before seeing the patient?". Below the question are four radio button options: "Order CT scan" (grey), "Order ultrasound of the abdomen" (yellow), "Request more information" (green), and "Schedule the patient for surgery" (red). At the bottom of the panel, there are three feedback options: "Correct" (green), "Potentially Helpful" (yellow), and "Incorrect" (red). A blue "CONTINUE" button is located at the bottom right of the panel.

AMERICAN COLLEGE OF SURGEONS  
Inspiring Quality:  
Highest Standards, Better Outcomes  
100+ years

Resources

AMERICAN COLLEGE OF SURGEONS | DIVISION OF EDUCATION  
Blended Surgical Education and Training for Life®

ACS Fundamentals of Surgery  
Curriculum®

What would you like to do before seeing the patient?

- Order CT scan
- Order ultrasound of the abdomen
- Request more information
- Schedule the patient for surgery

Correct  Potentially Helpful  Incorrect

CONTINUE



**FSC**

**Fundamentals of Surgery Curriculum**  
American College of Surgeons

## **108 Case Scenarios – 14 Critical Content Areas**

- Patient and Workplace Safety
- Preoperative Assessment
- On-Call Issues
- Pain Management
- Unresponsive and Agitated Patients
- Respiratory Management
- Cardiothoracic Conditions
- Gastrointestinal Conditions
- Wound Management
- Nutritional Support
- Fluid and Electrolyte Management
- Cardiac Conditions
- Vascular Conditions
- Oncology

## Summary/Discussion

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- **ACS (Specialty Academy) has convened/developed multiple tools for improving the UME/GME transition**
- **? Do other specialty academies have similar offerings?**
- **What is the business model?**