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INTRODUCTION

To assess how evidence-based imaging principles, specifically the ACR Appropriateness Criteria (AC), are incorporated into medical student and resident education in the United States, and to evaluate educational strategies that promote optimal imaging selection while minimizing unnecessary patient radiation exposure.

1. LEARNING TOGETHER

Medical Students and Residents Learn from Attending Doctors About ACR Appropriateness Criteria

Clinical Scenario: Suspected Appendicitis	Imaging Modality	Appropriateness
	Ultrasound	Usually Appropriate
	CT Abdomen/Pelvis with IV Contrast	May Be Appropriate
	MRI Abdomen/Pelvis	May Be Appropriate
	Radiography	Usually Not Appropriate

Use ACR Appropriateness Criteria to choose the right imaging study for the right patient.

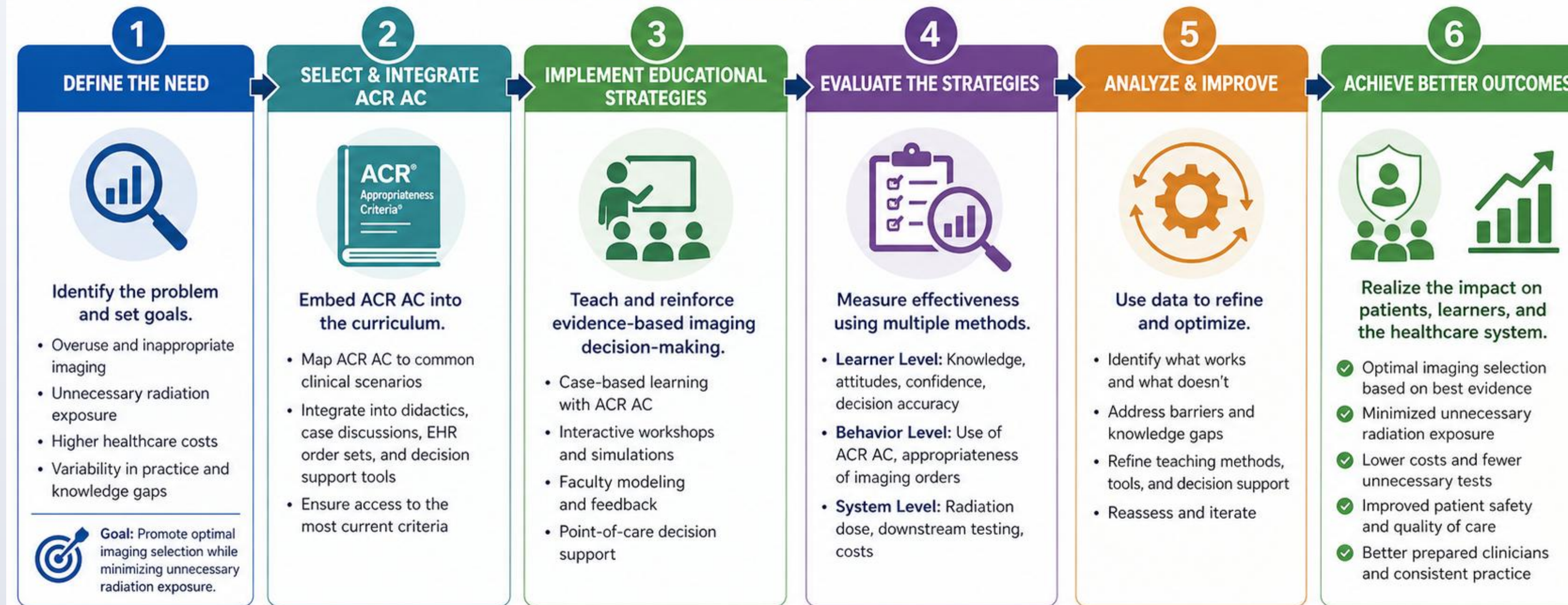
We consider:

- Clinical scenario
- Patient factors
- Radiation dose
- Diagnostic benefit
- Resource use

Learning evidence-based guidelines today builds better clinicians tomorrow.

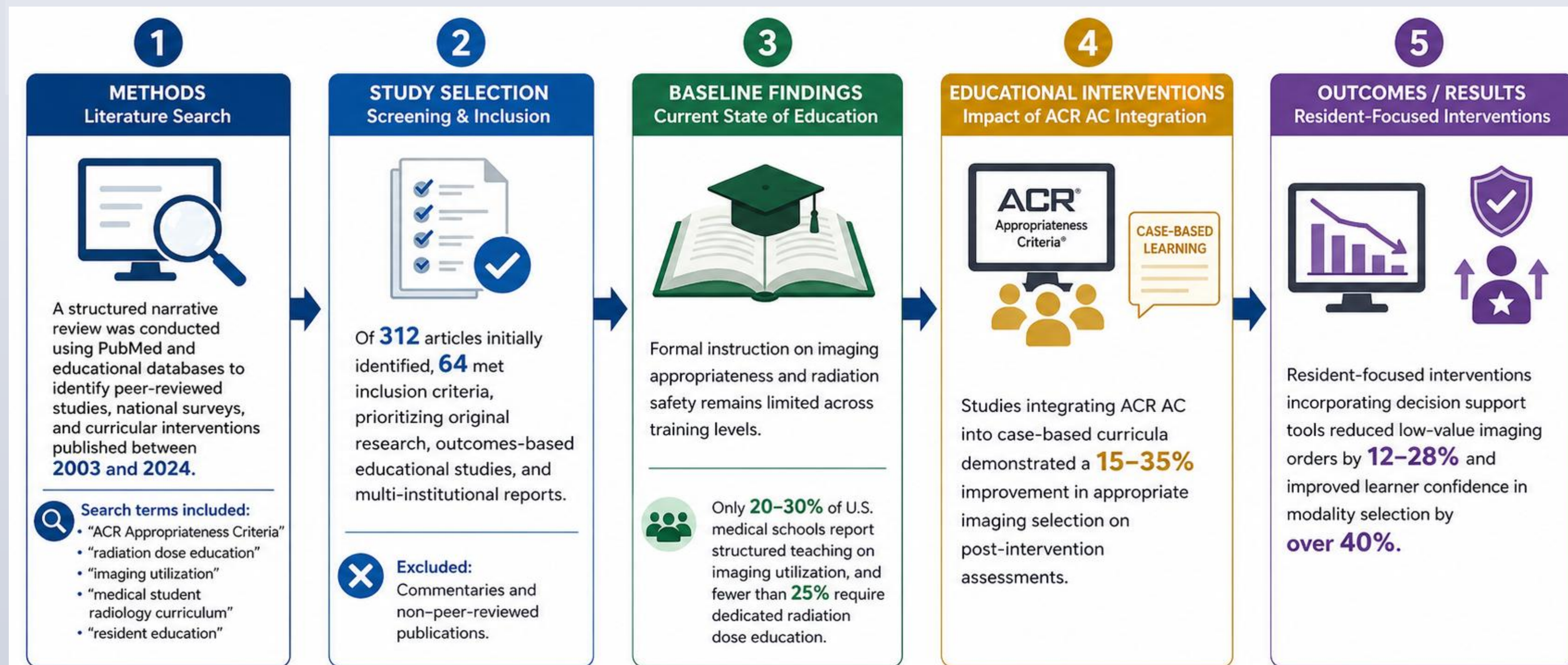
Incorporating ACR Appropriateness Criteria® (ACR AC) in Medical Education

A Step-by-Step Approach to Evaluate Educational Strategies that Promote Optimal Imaging Selection and Minimize Unnecessary Patient Radiation Exposure



The Result: Educating future clinicians with ACR Appropriateness Criteria—through intentional strategies and continuous evaluation—drives high-value imaging, protects patients, and strengthens healthcare.

ACR AC = ACR Appropriateness Criteria® | EHR = Electronic Health Record



Incorporating ACR Appropriateness Criteria into medical student and resident education is associated with:

- Improved appropriate imaging selection
- Reduced unnecessary imaging and radiation exposure
- Increased learner confidence and competence
- Better patient care and healthcare value

CONCLUSIONS

Medical education emphasizing imaging appropriateness and radiation dose stewardship remains underdeveloped in U.S. medical training. Broader integration of the ACR Appropriateness Criteria through structured curricula, case-based learning, and clinical decision support can improve imaging utilization, reduce unnecessary radiation exposure, and enhance patient care and safety.

CONFIDENT DECISIONS, BETTER CARE

Applying ACR Appropriateness Criteria Leads to Optimal Imaging and Minimizes Patient Radiation Exposure

We feel confident choosing the most appropriate imaging study!

ALARA PRINCIPLE
As Low As Reasonably Achievable

Imaging Decision

- Appropriate for Clinical Scenario
- Considers Radiation Dose
- Evidence-Based
- Patient-Centered

Decision: **APPROPRIATE**

Patient: RL, 25 Y/O, Female

Clinical Scenario: Suspected Appendicitis

Selected Study: Ultrasound

✓ Usually Appropriate
ACR Appropriateness Criteria®

BETTER DECISIONS. SAFER PATIENTS. HIGHER VALUE CARE.

- Appropriate imaging selection improves diagnostic accuracy
- Minimized unnecessary radiation exposure
- Improved patient safety and experience
- Reduced low-value care and healthcare costs

Using ACR Appropriateness Criteria every day protects patients and supports excellent care.

References

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