ACC Mapping Tools for Milestones Reporting

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Cardiology Training and Workforce Committee

Competency Management Committee
Objectives of Competency Mapping Project

Standards

• ACCF Curricular Competency and Milestones documents
• ACGME Subspecialty Reporting Milestones documents

Data Sources

• Fellow rotation evaluations
• In-training examination
• Direct observation
ACGME Perspective

• Overview of ACGME perspective on first round reporting milestones from programs
Mapping Tool Overview

• Rotation specific template evaluation tools
  – ACGME reporting milestones mapped to ACC curricular milestones
  – organized by 6 core competency domains

• Evaluation tools are not comprehensive
  – each program is encouraged to adapt templates to the needs of their institution and curriculum

• Faculty development is necessary to educate on milestones, evaluation tools, and methods to assess learners
Mapping Tools Online

• Overview of Evaluation Tool
• Ambulatory Clinic Tool
• Cardiology Consult Tool
• Cath Lab Tool
• Echo Tool

## Ambulatory Clinic Mapping Tool

### Patient Care Example

<table>
<thead>
<tr>
<th>Question N.</th>
<th>Competency Area</th>
<th>Reporting Milestones Subcompetency</th>
<th>Link to ACC Curricular Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

**PC 1:** Gathers and synthesizes essential and accurate information to define each patient’s clinical problem(s).

**PC 3:** Manages patients with progressive responsibility and independence.

- **M-ISCHEM-PC1:** Obtain and utilize history, physical examination, and ECG findings in patients with chest pain syndromes to establish a clinical probability of the presence of symptomatic coronary artery disease.
- **M-ISCHEM-PC2:** Distinguish stable versus unstable coronary syndromes.
- **M-ISCHEM-PC3:** Select evidence-based and cost-effective non-invasive testing for diagnosis and/or risk assessment in patients with chest pain syndromes.
- **M-ISCHEM-PC5:** Perform and interpret exercise ECG testing.
- **M-ISCHEM-PC9:** Implement lifestyle and pharmacologic interventions to control and achieve target levels of risk factors.
- **M-ISCHEM-PC10:** Perform pre-operative risk-assessment in cardiovascular patients undergoing non-cardiac surgery.
- **M-HF-PC2:** Appropriately select and incorporate data from diagnostic and laboratory testing in the evaluation and management of HF.
- **M-HF-PC6:** Recognize and manage comorbidities in HF patients.
- **M-ARR-PC1:** Evaluate and manage patients with palpitations.
- **M-ARR-PC2:** Evaluate and manage patients with syncope.
- **M-PREV-PC2:** Implement and prescribe lifestyle and pharmacologic approaches for the management of risk factors, including hypertension, elevated lipids, tobacco use, sedentary lifestyle, obesity, and diabetes mellitus.
# Ambulatory Clinic Mapping Tool – Levels of Entrustment

## Patient Care

### ACGME Reporting Milestones:
- PC 1: Gathers and synthesizes essential and accurate information to define each patient’s clinical problem(s).  
- PC 3: Manages patients with progressive responsibility and independence.

### ACC Curricular Milestones:
- M-ISCHEM-PC1, PC2, PC3, PC5, PC9, PC10; M-HF-PC2, PC6; M-ARR-PC1, PC2, M-PREV-PC2

## Levels of Entrustment

<table>
<thead>
<tr>
<th>Level</th>
<th>Critical Deficiencies</th>
<th>Early Learner</th>
<th>Advancing-Improving</th>
<th>Ready for Unsupervised Practice</th>
<th>Aspirational</th>
</tr>
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<tbody>
<tr>
<td>Level 1</td>
<td>Fails to recognize the signs and symptoms of common cardiovascular diseases. Performs inadequate examination and assessment. Fails to develop comprehensive, evidence-based treatment plans. Provides inadequate follow-up to patients.</td>
<td>Possesses partial skills to conduct effective patient assessment. Is inattentive to patient safety and comfort. Develops incomplete treatment plans and not consistent with guideline-directed medical therapy.</td>
<td>Can safely perform clinical assessments and interpret uncomplicated data in common cardiovascular disorders. Recognizes most high-risk findings in all clinical settings and able to manage complications of common cardiovascular disorders.</td>
<td>Consistently and effectively performs clinical assessments and interprets diagnostic tests to develop guideline-directed medical therapy in common cardiovascular disorders. Consistently recognizes appropriate indications of testing and therapy and individual patient risks. Is able to assess and manage complications of common cardiovascular disorders and their therapies.</td>
<td>Demonstrates skills necessary to interpret, teach, and supervise others in the evaluation and management of a variety of cardiovascular disorders including uncommon conditions. Diagnoses and manages rare diagnoses.</td>
</tr>
</tbody>
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# Echo Mapping Tool

## Medical Knowledge Example

<table>
<thead>
<tr>
<th>Question No.</th>
<th>Competency Area</th>
<th>Reporting Milestones Subcompetency</th>
<th>Link to ACC CMC Template Evaluation Tool for Echocardiography</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Medical Knowledge</td>
<td>MK2: Knowledge of diagnostic testing and procedures.</td>
<td></td>
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<tr>
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<tbody>
<tr>
<td>M-IMAG-ECHO-MK2</td>
<td>Know the appropriate indications for: M-mode, two-dimensional, and three-dimensional transthoracic echocardiography (TTE); Doppler echocardiography and color flow imaging; transesophageal echocardiography (TEE); tissue Doppler and strain imaging; contrast echocardiography.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-IMAG-ECHO-MK7</td>
<td>Know the characteristic findings of cardiomyopathies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-IMAG-ECHO-MK8</td>
<td>Know how to use echo and Doppler data to evaluate native and prosthetic valve function and diseases.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-IMAG-ECHO-MK9</td>
<td>Know the echo and Doppler findings of cardiac ischemia and infarction and the complications of myocardial infarction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-IMAG-ECHO-MK10</td>
<td>Know the echo findings of pericardial disease, pericardial effusion, and pericardial constriction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-IMAG-ECHO-MK11</td>
<td>Know the characteristic findings of basic adult congenital heart diseases.</td>
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<tr>
<td>M-IMAG-ECHO-MK13</td>
<td>Know how to evaluate cardiac mass and suspected endocarditis.</td>
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</tr>
<tr>
<td>M-IMAG-ECHO-MK15</td>
<td>Know how to assess pulmonary artery pressure and diseases of the right heart.</td>
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<tr>
<td>M-IMAG-ECHO-MK16</td>
<td>Know how to evaluate patients with systemic diseases involving the heart.</td>
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</tr>
<tr>
<td>M-IMAG-ECHO-MK17</td>
<td>Know the indications for and the echocardiographic findings in patients with known or suspected cardio-embolic events.</td>
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<td></td>
</tr>
</tbody>
</table>

**American College of Cardiology**
Echo Mapping Tool – Levels of Entrustment

### Medical Knowledge

**ACGME Reporting Milestone:**
MK2: Knowledge of diagnostic testing and procedures.

**ACC Curricular Milestones:**
M-IMAG-ECHO-MK2, MK7, MK8, MK9, MK10, MK11, MK13, MK15, MK16, MK17

<table>
<thead>
<tr>
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<tr>
<td>Lacks foundational knowledge regarding the appropriate indications for echocardiographic examinations.</td>
<td>Minimally understands the role of echocardiography in assessing patients with a variety of cardiac problems.</td>
<td>Understands the basic acquisition parameters and views needed to obtain a limited examination.</td>
<td>Consistently understands the key echocardiographic findings for a wide spectrum of cardiac problems.</td>
<td>Understands subtle nuances in interpreting test results. Pursues knowledge of emerging techniques in echocardiography.</td>
</tr>
</tbody>
</table>
# Cardiac Cath Mapping Tool

## Systems-Based Practice Example

<table>
<thead>
<tr>
<th>ACC CMC Template Evaluation Tool for Catheterization Lab Rotation</th>
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<tr>
<th>Systems-Based Practice</th>
<th>SBP1: Works effectively within an interprofessional team.</th>
<th>M-INV/INT-SBP1</th>
<th>Coordinate care in a multidisciplinary approach for patient management, including transition of care.</th>
<th>INT-SBP1</th>
</tr>
</thead>
</table>

**AMERICAN COLLEGE OF CARDIOLOGY**
## Cardiac Cath Mapping Tool – Levels of Entrustment

### Systems-Based Practice

**ACGME Reporting Milestone:**
*SBP1*: Works effectively within an interprofessional team.

**ACC Curricular Milestone:**
*INT-SBP1*

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</tr>
<tr>
<td>Frequently requires reminders from laboratory staff to complete responsibilities.</td>
<td>Engages in discussion when directly approached but does not actively seek input from others.</td>
<td>Actively engages members of the laboratory staff in collaborative decision-making.</td>
<td>Efficiently coordinates activities of the cardiac catheterization laboratory team to optimize care.</td>
<td>Viewed by cardiac catheterization laboratory team as a leader in delivery of high-quality care.</td>
</tr>
</tbody>
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# Cardiology Consult Mapping Tool

## Professionalism Example

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<td>Professionalism</td>
<td></td>
<td>M-ISCHEM-PROF1, PROF2</td>
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**PROF1:** Has professional and respectful interactions with patients, caregivers, and members of the interprofessional team (e.g., peers, consultants, nursing, ancillary professionals, and support personnel).

**PROF2:** Accepts responsibility and follows through on tasks.

**PROF3:** Responds to each patient's unique characteristics and needs.

**PROF4:** Exhibits integrity and ethical behavior in professional conduct.

**M-ISCHEM-PROF1:** Exhibit sensitivity to patient preference and end-of-life issues.

**M-ISCHEM-PROF2:** Identify and manage conflicts of interest.
Cardiology Consult Mapping Tool – Levels of Entrustment

**Professionalism**

**ACGME Reporting Milestones:**
- PROF1: Has professional and respectful interactions with patients, caregivers, and members of the interprofessional team (e.g., peers, consultants, nursing, ancillary professionals, and support personnel).
- PROF2: Accepts responsibility and follows through on tasks.
- PROF3: Responds to each patient's unique characteristics and needs.
- PROF4: Exhibits integrity and ethical behavior in professional conduct.

**ACC Curricular Milestones:**
- M-ISCHEM-PROF1, PROF2

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<tr>
<td><strong>Critical Deficiencies</strong></td>
<td>Lacks sensitivity to patients' needs. Is disrespectful when interacting with patients, staff, and peers. Does not accept responsibility for tasks.</td>
<td>Exhibits inconsistent sensitivity and respect when interacting with patients, staff, and peers. Requires reminders to follow through on tasks.</td>
<td>Has respectful interactions with patients and is sensitive to their needs. Exhibits professional behavior in most settings when interacting with staff and peers. Rarely requires reminders to follow through on tasks.</td>
<td>Consistently exhibits professional behavior with patients, staff, and peers. Rarely requires reminders to follow through on tasks.</td>
<td>Serves as a role model for others with respect to professional interactions with patients, staff, and peers.</td>
</tr>
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</table>
Future Plans

• Creation of resources for use in demonstrating a Fellow’s level of competence for areas within subspecialty reporting milestones that may not be currently covered via typical rotations
  – Examples
    • In training exam performance
    • Direct observation
    • Simulation
Wrap Up

• You may access the ACC CMC’s Mapping Tools via CardioSource

• Please type in your question(s) for our presenters