Implementation of the Thoracic Surgical Curriculum: Milestones Documentation

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In an effort to move toward a competency-based resident curriculum, the Accreditation Council of Graduate Medical Education (ACGME) Outcome Project will require that residents achieve certain specialty-specific milestones documented in the six core competencies. These milestones describe through the core competencies more specifically and identify specific knowledge, skills, attitudes, and behaviors that can be used as outcome measures within these general competencies. In January 2012, the American Board of Thoracic Surgery (ABTS) and the ACGME jointly formed a working committee charged with developing the Thoracic Surgery Milestones by the end of the 2012 calendar year, setting performance standards in accordance with the charge of the longitudinal ACGME Outcome Project. This working group developed a topic-based category system for each of the six core competencies, generating a total of 26 sub-competencies. Specific narrative description and examples were listed for each sub-competency to enable proper assignment of a level of proficiency. The ACGME in the past had provided a set of general assessment tools, but thoracic surgery-specific instruments (e.g., technical skills, performance evaluations, teaching skills, oral exams) were also developed to help residency Program Directors better assess progress through the Milestones. The Thoracic Surgery Milestones will be implemented beginning July 2014 (seven specialties have already begun implementation July 2013).

The ACGME has a number of assessment tools already listed on their website. Most are currently being utilized in some form at residency programs. These include:

- 360-Degree Evaluation Instrument
- Chart Stimulated Recall Oral Examination (CSR)
The final version of the Next Accreditation System (NAS) may eventually include many types of data that RRCs will then use in their review of programs, including: the annual milestone reports, attrition rate, certification exam performance, institutional support of GME, site visit reports from the new Clinical Environment Reviews (CLER), case log reports, and resident and faculty questionnaires. These additional metrics will form the basis for defining the annual and semiannual assessments of programs in the NAS.

At the Spring 2013 TSDA General Session, a proposed timeline was proposed to help prepare for the July 2014 implementation date. One of the key components in the implementation process is to convene a Clinical Competency Committee (CCC). This can be directed by the Program Director or his/her designee. Composition of this committee should include core teaching faculty, and broadly represent the disciplines and institutions of that program. Their roles would be to come to some consensus on assigning appropriate milestone levels for each trainee biannually while reviewing available assessment data for each trainee. Working backward in time assuming that in January 2015 individual programs will need to submit their first set of Milestones to the ACGME, the following timeline was suggested:

June-Aug 2013: Create the Clinical Competency Committee (CCC)
Aug-Oct 2013: CCC members meet, review/select available assessment tools
Sept-Dec 2013: Develop any new tools to fill any gaps in assessments
Jan-June 2014: Implement new assessment tools, β-test data collection, adjust accordingly
Jul–Dec 2014: Go live with Milestones! Perform assessments and collect data
Nov-Dec 2014: CCC meets and assigns Milestones
Jan 2015: First Milestone submission due to ACGME

The new Thoracic Surgical Curriculum will have specific subject categories mapped to the Milestones. As of this writing, the final version of the Thoracic Surgery Milestones is pending final approval by the oversight board. Each of the Milestones has a general appearance like the following:

<table>
<thead>
<tr>
<th>Milestone Description: Template</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>What are the expectations for a beginning resident?</td>
</tr>
<tr>
<td>Are they ready for certification?</td>
</tr>
</tbody>
</table>

This is the base template that was used by the Cardiothoracic Surgery Working Group. The template demonstrates the expectations of the levels. Level 1 is for the beginning resident; Level 4 is for the graduating resident. A resident who achieves a Level 4 is someone who is ready for certification and independent practice. Levels 2 and 3 are those steps in-between –
these residents are continuing to learn. Level 5 is for those residents who exceed the expectations of the graduating resident; residents are not expected or required to achieve a Level 5.

<table>
<thead>
<tr>
<th>Milestone Description: Template</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1</strong></td>
</tr>
<tr>
<td>Task 1</td>
</tr>
<tr>
<td>Task 2</td>
</tr>
</tbody>
</table>

Levels do not refer to post graduate year or year within a particular program. Level 4 is the expectation of a Graduating resident.

Milestones are progressive over time. There is no prescribed speed at which residents must move across a milestone.

Selecting a middle box implies that all milestones in that level and in lower levels have been attained.

Selecting a box on the line in between levels indicates that all milestones in lower levels have been attained as well as some milestones in the higher level(s).

A few notes about the template. First, levels do not refer to post-graduate year. Each milestone is progressive over time. A specific task may have increasing independence or increasing responsibility across each level. There is no prescribed speed at which residents must move across the progression. There is no penalty for a resident who peaks early in the residency. The same is true for a resident who may be slow to achieve advanced milestones. The graduating resident should be at a Level 4 for all Milestones. When you are evaluating the residents, it is also important to know that they can be evaluated in-between levels. Sometimes a resident has completed all of the milestones in one level and only a few in the next, the Milestone template accommodates that delineation.
Sample Milestone for Medical Knowledge of the Esophagus. This milestone demonstrates the progressive nature of how a resident learns about diseases of the esophagus starting with basic anatomy and diagnostic tools and progressing through distinguishes complex clinical manifestations and knowing outcomes. Remember that residents are not expected to complete the activities included in Level 5. Please note the examples of key points are included in the text. For example, residents below Level 1 know basic anatomy and pathology (e.g., identifies GI anatomy innervations and blood supply, endoscopic landmarks). These were included to give you insight to the intent of the milestone.

Summary

All cardiothoracic surgery training programs will be expected to participate in the ACGME Milestones Program beginning July 2014, and begin to implement assessment tools with the
anticipation that the first submission due in to the ACGME will be January 2015. It is suggested that all programs begin to convene a CCC and to pilot assessment tools which will be needed to support the milestones documentation. The new Thoracic Surgical Curriculum will fulfill many of the milestones particularly in the areas of medical knowledge and patient care. Each of the Curriculum topics will be mapped to specific milestone categories, which hopefully will help in the completion in some of the assessment tools.