APEx - Accreditation Program for Excellence

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Disclosures

• Co-Chair, ASTRO APEx Practice Accreditation Committee
• Chair, AAPM Workforce Assessment Committee
Objectives

• Discuss the purpose and value of accreditation.
• Discuss the ASTRO APEX™ practice accreditation model.
• Identify and discuss the APEX Pillars and Standards.
• Discuss the APEX process and outcomes.
Why Do We Need Accreditation?

• Issues identified by the Institute of Medicine
  – Systems can be complex and fragmented.
  – Patient-centered care is not well implemented.
  – Patients are excluded from the care team and decision making.
  – Too much unwanted or unneeded care.

*Crossing the Quality Chasm: A New Health System for the 21st Century*, Institute of Medicine (IOM) 2001
How Does Accreditation Address These Issues?

- Assures appropriate structures and processes are in place.
- Provides accountability.
- Promotes quality and safety of radiation oncology processes.
- Improves patient and other stakeholder confidence in the quality of care.
- Identifies areas needing improvement.
Accreditation Program for Excellence (APEx™)

• Mission
  To recognize facilities by objectively assessing the radiation oncology care team, policies and procedures, and the facility.

• Values
  – Patient-centered Care
  – Efficiency
  – Transparency
  – Objectivity
Accreditation Program for Excellence (APEx™)

• Provides an objective review by professional peers of essential functions and processes of radiation oncology practices.
• Offers transparent, measurable, evidence- and consensus-based standards that emphasize a professional commitment to safety and quality.
• Encourages an interdisciplinary, team-based Culture of Safety.
<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Task</th>
</tr>
</thead>
</table>
| September 2012   | • ASTRO Board approved the development of an independent practice accreditation program  
                    • A multidisciplinary, regionally and structurally (academic/hospital/freestanding) diverse advisory group was identified |
| October 2012     | • ASTRO convened a stakeholders brainstorming session to identify successful drivers of a practice accreditation program              |
| November 2012    | • A foundation was laid for the first practice accreditation work group meeting                                                    |
| December 2012    | • The practice accreditation work group kick-off meeting was convened in San Diego.  
                    • An initial set of standards was drafted by the work group                                                                      |
<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Task</th>
</tr>
</thead>
</table>
| March 2013       | • The work group identified a subset of standards that are mandatory “must pass”  
|                  | • The accreditation program is branded as APEX (Accreditation Program for Excellence) |
| April-May 2013   | • Standards were posted for public comments  
|                  | • More than 700 individuals responded including representatives from every member of the radiation oncology treatment team, radiation oncology administrators, and payers.  
|                  | • There was overwhelming support (80-90%) for both the non-mandatory and mandatory standards |
| June 2013        | • Work group revised draft standards based on public comment |
# APEx Work Group

<table>
<thead>
<tr>
<th>Name</th>
<th>Title and Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prabhakar Tripuraneni, MD, Co-Chair</td>
<td></td>
</tr>
<tr>
<td>Jim Hayman, MD, MBA, Co-Chair</td>
<td></td>
</tr>
<tr>
<td>Sarah Thurman, MD</td>
<td></td>
</tr>
<tr>
<td>Constantine Mantz, MD</td>
<td></td>
</tr>
<tr>
<td>Mary Martel, PhD</td>
<td></td>
</tr>
<tr>
<td>Yan Yu, PhD, MBA</td>
<td></td>
</tr>
<tr>
<td>Jeffery Limmer, MEd, MSc, DABR</td>
<td></td>
</tr>
<tr>
<td>Richard Emery, MS, MBA, DABR</td>
<td></td>
</tr>
<tr>
<td>Sandra Hayden, MA, BS, RT(T)</td>
<td></td>
</tr>
<tr>
<td>Dan Ayer, BS, RT (T)</td>
<td></td>
</tr>
<tr>
<td>Liz Brunton, RN, MSN</td>
<td></td>
</tr>
<tr>
<td>Robert Adams, RT(T), CMD, MPH, EdD</td>
<td></td>
</tr>
<tr>
<td>Lukasz Mazur, PhD</td>
<td></td>
</tr>
</tbody>
</table>
I. BACKGROUND
Basis for Standards

• The standards reflect competencies and practices identified and endorsed in the publication, *Safety is No Accident: A Framework for Quality Radiation Oncology and Care*. 

• The *Framework* provides guidelines for essential practices in radiation oncology.

• The thematic focus of the standards is organized around five Pillars.
APEx Five Pillars

- The Process of Care
- The RO Team
- Safety
- Quality Management
- Patient-centered Care
Pillar One: The Process of Care

• The conceptual framework for delivering appropriate, high-quality and safe radiation therapy treatment to patients.
• These standards derive from the model Process of Care flow diagram in the consensus report *Safety is No Accident: A Framework for Quality Radiation Oncology Care.*
Pillar One: The Process of Care

• Standard 1: Patient Evaluation, Care Coordination and Follow up.
• Standard 2: Treatment Planning.
Pillar Two: The Radiation Oncology Team

• The radiation oncology team works to provide every patient undergoing radiation treatment with the appropriate level of medical, emotional and psychological care before, during and after treatment, through a collaborative multidisciplinary approach.
Pillar Two: The Radiation Oncology Team

- Standard 4: Staff Roles and Responsibilities.
- Standard 5: Qualifications and Ongoing Training of Staff.
Pillar Three: Safety

• The radiation oncology practice creates an interdisciplinary team-based culture of safety that continuously reviews, monitors and adapts all aspects of safety.
Pillar Three: Safety

• Standard 7: Culture of Safety.
• Standard 8: Radiation Safety.
Pillar Four: Quality Management

• The radiation oncology practice has a quality management program that includes the facility, equipment, information management, treatment procedures and modalities, and peer review.
Pillar Four: Quality Management

- Standard 10: Facility and Equipment.
- Standard 11: Information Management and Integration of Systems.
- Standard 12: Quality Management of Treatment Procedures and Modalities.
Pillar Five: Patient-centered Care

• The APEx patient-centered care standards aim to make care safer by promoting effective communication, coordination of care and engaging patients and families as partners in care.
Pillar Five: Patient-centered Care

- Standard 14: Patient Consent.
Standards: www.astro.org/APEx
APEx Standards

• Each Pillar consists of approximately 3-4 standards.
• The standards represent the overarching performance expectation.
• Each standard is supported by evidence indicators, which describe, in objective terms, the requirements for satisfying the standards.
APEx Standards

- Data Sources & Collection Methods
  - Data Sources
    - Medical Record Abstraction
    - Document Uploads - Policy & Procedures, Minutes, Attendance Logs etc.
    - Interviews
  - Collection Methods
    - Self-assessment Web-based tool
    - Surveyor Web-based tool
APEx Standards - a close look at one of them

Standard 2: Treatment Planning

Evidence Indicator 2.1: The planning process is based on data from a simulation procedure that:

- **Sub-evidence Indicator 2.1.1**: Is conducted according to the written simulation direction of a radiation oncologist.

- **Sub-evidence Indicator 2.1.2**: Includes documentation of factors that impact reproducibility including patient positioning, patient immobilization devices, and verification of accurate information transfer from simulation machines to treatment planning systems.
  - **Evaluation Criteria 2.1.2a**: Patient positioning.
  - **Evaluation Criteria 2.1.2b**: Patient immobilization devices.
  - **Evaluation Criteria 2.1.2c**: Verification of accurate information transfer from simulation machines to treatment planning systems.
Practice Accreditation Model

Facility
- Application and payment
- Self-assessment
- Pre-facility visit teleconference
- Facility visit
- Facility preparation
- Final report and determination

Surveyor
- Completion of online modules
- Pre-facility visit teleconference
- Facility visit preparation

Committee
Practice Accreditation Model

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Pre-facility visit teleconference

Committee

Facility visit

Surveyor

Completion of online modules
Pre-facility visit teleconference
Facility visit preparation

Final report and determination
Accreditation Process

**Self-assessment** (Assess for Readiness)

- **The ROP:**
  - Receives APEx self-assessment guide, which is a comprehensive document providing the step-by-step process for completing the self-assessment.
  - Submits self-assessment documentation including results of medical record abstraction, policies and other supportive materials, and a questionnaire.
- **Review of self-assessment and supporting documentation by ASTRO staff.**
- **Issuance of performance feedback and self-assessment results summary which identifies strengths and gaps in compliance with the standards.**
Accreditation Process

**Self-assessment**

- The web-based platform allows for:
  - Multiple users to enter data
  - The ability to save, start, and stop at any time
- The three sections of the self-assessment
  - Medical Record Abstraction.
  - Document Upload.
  - Interview Preparation.
- Performance Feedback and Self-assessment Results Summary
Accreditation Process

Self-assessment Sample feedback report

Medical Record Status: Not Ready (2 attempt(s) remaining)

Score: 89% Mandatory
83% Non-Mandatory

Showing 1 to 10 of 57

<table>
<thead>
<tr>
<th>Measure</th>
<th>Score</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.1 - Patient Evaluation Score</td>
<td>76 %</td>
<td></td>
</tr>
<tr>
<td>1.1.1a - Patient history</td>
<td>100 %</td>
<td></td>
</tr>
<tr>
<td>1.1.1b - Current medication</td>
<td>80 %</td>
<td></td>
</tr>
<tr>
<td>1.1.1c - Implantable cardiac device</td>
<td>56 %</td>
<td></td>
</tr>
</tbody>
</table>
Accreditation Process

**Self-assessment and Quality Improvement**
Based on the ABR’s four-part Plan-Do-Study-Act (PDSA) process for continuous quality improvement.

The plan-do-study-act (PDSA) cycle:
**Plan:** Identify an opportunity and plan for improvement.  
**Do:** Implement the change. 
**Study:** Use data to analyze the results of the change and determine whether it made a difference. 
**Act:** If the change was successful, continuously assess your results. If the change did not work, begin the cycle again.
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Committee
- Facility visit
- Final report and determination

Practice Accreditation Model
Practice Accreditation Model

Facility

Application and payment
Self-Assessment
Pre-facility visit teleconference
Facility Visit
Facility Visit Preparation
Pre-facility visit teleconference
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Surveyor

Committee

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Sidney Kimmel Cancer Center
at Thomas Jefferson University
NCI-designated
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ASTRO Accreditation Program for Excellence
Safety and quality for radiation oncology practice
Data Sources & Collection

• Data Sources
  – Medical records.
  – Staff interviews.

• Collection
  – Sampling methodology is based on number of annual new patients.
  – Data gathering is collected during the self-assessment and the facility visit.
Onsite data collection will be through web-based tool.
Surveyor Process

Surveyor Web-based data entry portal

- Data collected during the facility visit will be entered into a customized Web-based database.
- Data entry templates will be tailored to the facility’s equipment, modalities, staffing, etc.
- Data entry templates will consist of multiple choice items and will be used to document the evidence requirements.
- Free text responses are not included on the data entry templates.
Surveyor Criteria

- Professionally active: Currently practicing in a U.S. radiation oncology setting.
- Exclusive agreement: Must agree to only conduct APEx surveys.
- Frequent availability: Conduct 4 surveys per year.
- Commit to training: HIPAA, competency-based training on standards, how to use the data collection platform.
- Willing to disclose relationships: A statement of disclosure of professional and personal relationships must be completed.
Surveyor Process
Selection of the surveyor team

• ASTRO will match the surveyor and facility based on:
  • Availability
  • Proximity
  • Experience with the facility’s electronic health records vendor, treatment planning system and modality.

• Conflict of Interest Review.

• Number of facility visits conducted.
Surveyor Process

Preparation for the facility visit

• Upon confirmation of the facility visit, surveyor will be given access to the facility file, which will allow for review of the application and review of the uploaded documents.

• In addition to reviewing the facility file, preparation for the facility visit will include attending the pre-facility teleconference.
## Facility Visit

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Conduct medical record abstraction</th>
<th>Conduct interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAIN FACILITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physicist</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Radiation oncologist or other radiation oncology professional on the survey team</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td><strong>SATELLITE FACILITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physicist</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>
High-level overview of the main facility itinerary

<table>
<thead>
<tr>
<th>Activity</th>
<th>APEx Team</th>
<th>Time (Approx.)</th>
</tr>
</thead>
</table>
| Kick-off meeting                 | The lead team member (radiation oncologist/physicist) will be provided a script to conduct the kick-off meeting.  
(A script will be provided to ensure consistency of messaging) | 30 mins       |
| - Introduction of team and key ROP staff |                                                                             |               |
| - Purpose of visit               |                                                                             |               |
| - Itinerary overview             |                                                                             |               |
| Tour                             | The entire team will participate in the tour                               | 30 mins       |
| Medical record abstraction       | Medical record abstraction                                                 | 6 hours       |
| Key interviews                   | Interviews with the Radiation Oncology Department Director; Chief Physicist |               |
| Wrap up meeting                  | Surveyor Team                                                              | 30 mins       |
|                                  | (A script will be provide to ensure consistency of messaging )             |               |
| Total Time                       |                                                                            | 7.5 hours     |
## Medical Record Abstraction

### Medical Record Review

<table>
<thead>
<tr>
<th>(A) Number of new patients per year</th>
<th>(B) Number of records abstracted by facility</th>
<th>(C) Number of self-assessment records that are verified by surveyors</th>
<th>(D) Number of randomly selected records from facility’s</th>
<th>(E) Number reviewed during main facility visit (Columns B-D)</th>
<th>(F) Number of randomly selected records from facility’s case list</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;600</td>
<td>15</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>600 – 1200</td>
<td>20</td>
<td>7</td>
<td>7</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>&gt;1200</td>
<td>25</td>
<td>8</td>
<td>8</td>
<td>16</td>
<td>8</td>
</tr>
</tbody>
</table>
### High-level overview of satellite visit itinerary

<table>
<thead>
<tr>
<th>Activity</th>
<th>Physicist</th>
<th>Time (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kick-off meeting</td>
<td>Conducts the kick-off meeting. (A script will be provided to ensure consistency of messaging)</td>
<td>15 mins</td>
</tr>
<tr>
<td>- Introduction of physicists to key ROP staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Purpose of visit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Itinerary overview</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tour</td>
<td></td>
<td>30 mins</td>
</tr>
<tr>
<td>Medical Record Abstraction</td>
<td>Medical record abstraction</td>
<td>3 hours</td>
</tr>
<tr>
<td>Key Interviews</td>
<td>Interviews with the Radiation Oncology Department Director; Chief physicist</td>
<td></td>
</tr>
<tr>
<td>Wrap up meeting</td>
<td>(A script will be provided to ensure consistency of messaging)</td>
<td>15 mins</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Time</strong></td>
<td></td>
<td><strong>4 hours</strong></td>
</tr>
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</table>
Accreditation Process

- Application and Payment
- Self-assessment
- Facility Visit Preparation
- Facility Visit
- Final Report and Determination
## Current Costs per Four Years

<table>
<thead>
<tr>
<th>Number of Facilities</th>
<th>2014 Prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Facility/1</td>
<td>$12,000</td>
</tr>
<tr>
<td>2</td>
<td>$16,000</td>
</tr>
<tr>
<td>3</td>
<td>$20,000</td>
</tr>
<tr>
<td>4</td>
<td>$24,000</td>
</tr>
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<td>5</td>
<td>$28,000</td>
</tr>
<tr>
<td>6</td>
<td>$32,000</td>
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<td>7</td>
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<tr>
<td>8</td>
<td>$40,000</td>
</tr>
<tr>
<td>9</td>
<td>$44,000</td>
</tr>
<tr>
<td>10</td>
<td>$48,000</td>
</tr>
</tbody>
</table>
Practice Friendly

- Transparent standards, evidence indicators and criteria for objective scoring (more quantitative and less qualitative).
- Self-assessment which promotes the creation of and adherence to processes and policies that improve the quality of care and patient safety.
- Access to robust resources to help practices achieve accreditation.
- Four-year accreditation cycle that allows practices time to implement and measure quality improvement strategies.
APEx Outcomes

• Findings from APEx will
  – Potentially highlight variances in the delivery of radiation oncology care.
  – Inform educational offerings.
  – Identify topics for clinical practice statements and quality measures development.
# Program Launch Schedule

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Launch Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application launch</td>
<td>December 2014</td>
</tr>
<tr>
<td>Self-assessment launch</td>
<td>March 2014</td>
</tr>
<tr>
<td>Scheduling site visits</td>
<td>Summer 2015</td>
</tr>
<tr>
<td>Conducting site visits</td>
<td>Autumn 2015</td>
</tr>
<tr>
<td>Final determinations</td>
<td>Winter 2015</td>
</tr>
<tr>
<td>Milestone</td>
<td>Launch</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Beta test sites application</td>
<td>November 2014</td>
</tr>
<tr>
<td>Application launch</td>
<td>December 2014</td>
</tr>
<tr>
<td>Beta test sites self-assessment</td>
<td>December 2014</td>
</tr>
<tr>
<td>Self-assessment launch</td>
<td>February 2015</td>
</tr>
<tr>
<td>Beta test sites facility visits</td>
<td>July 2015</td>
</tr>
<tr>
<td>Scheduling facility visits</td>
<td>Summer 2015</td>
</tr>
<tr>
<td>Conducting facility visits</td>
<td>Autumn 2015</td>
</tr>
<tr>
<td>Final determinations</td>
<td>Winter 2015</td>
</tr>
</tbody>
</table>
## APEx 2015 Goals

<table>
<thead>
<tr>
<th>Number</th>
<th>Goal</th>
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<tbody>
<tr>
<td>50</td>
<td>Applications submitted</td>
</tr>
<tr>
<td>18</td>
<td>Self-assessments submitted</td>
</tr>
<tr>
<td>25</td>
<td>Facility visits scheduled</td>
</tr>
<tr>
<td>15</td>
<td>Facility visits complete</td>
</tr>
<tr>
<td>10</td>
<td>Final determinations</td>
</tr>
</tbody>
</table>
**APEx ROP Statistics**

<table>
<thead>
<tr>
<th>Number</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>46</td>
<td>Accounts created</td>
</tr>
<tr>
<td>18</td>
<td>Applications in progress</td>
</tr>
<tr>
<td>9</td>
<td>Applications submitted</td>
</tr>
<tr>
<td>8</td>
<td>Self-assessments in progress</td>
</tr>
</tbody>
</table>
APEx ROP Statistics

- 33% Private Practice/Community Based System
- 67% Academic/University System

Sidney Kimmel Cancer Center
at Thomas Jefferson University
NCI-designated
APEx Surveyor Eligibility Requirements

APEx surveyors must be:

- A radiation oncology team member
  - A U.S. licensed and board certified radiation oncologist, medical physicist, radiation oncology nurse practitioner/physician assistant; or
  - A certified and licensed (where applicable) radiation therapist; or
  - A registered nurse;
  - A medical dosimetrist; or
  - A practice administrator.
## Surveyor Statistics

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Approved</th>
<th>Training complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiation Oncologist</td>
<td>49</td>
<td>23</td>
</tr>
<tr>
<td>Physicist</td>
<td>97</td>
<td>49</td>
</tr>
<tr>
<td>Radiation Therapist</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Practice Administrator</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>Medical Dosimetrst</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Nurse</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>179</td>
<td>82</td>
</tr>
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</table>
Thank you for your attention!

Yan.Yu@Jefferson.edu