APEX®: The role of the Dosimetrist in ASTRO’s Accreditation Program

Samantha Dawes, CMD.
Disclaimer

- The APEx® Program: ASTRO
- Examples and opinions: Sam Dawes
Objectives

• Quality Improvement overview.
• APEx overview.
• APEx program specifics.
• Dosimetry related standards.
• Dosimetrist roles in accreditation.
Quality Improvement

• Continual monitoring of performance.
• Reviews are aimed at improvement.
• Measuring where you are, identifying where you want to be.
• Ongoing effort to improve systems and processes.
• Prevents errors and improves patient safety.
APEx®- ASTRO’s Quality Improvement Initiative

• Promotes quality and safety of radiation oncology practices.
• Identifies areas of improvement.
• Ensures systems and processes are in place.
• Promotes the creation of, and adherence to, policies and procedures that improve the quality of care.
The APEX® Process

<table>
<thead>
<tr>
<th></th>
<th>Quality Assurance</th>
<th>Quality Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>Measuring compliance with standards</td>
<td>Continuously improving processes to meet standards</td>
</tr>
<tr>
<td>Means</td>
<td>Inspection</td>
<td>Prevention</td>
</tr>
<tr>
<td>Attitude</td>
<td>Required, defensive</td>
<td>Chosen, proactive</td>
</tr>
<tr>
<td>Focus</td>
<td>Outliers: &quot;bad apples&quot; Individuals</td>
<td>Processes Systems</td>
</tr>
<tr>
<td>Scope</td>
<td>Medical provider</td>
<td>Patient care</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Few</td>
<td>All</td>
</tr>
</tbody>
</table>

APEx® Program Fundamentals

- The integration of ASTRO quality efforts.
- Interdisciplinary, team-based approach to a Culture of Safety.
- *Safety is No Accident: A Framework for Quality Radiation Oncology and Care.*
APEx® Standards

• The Process of Care.
• The Radiation Oncology Team.
• Safety.
• Quality Management.
• Patient Centered Care.

• Patient evaluation, care coordination and follow-up.
• Treatment planning.
• Patient specific safety interventions and safe practices in treatment preparation and delivery.
APEx® Standards

• The Process of Care.
• The Radiation Oncology Team.
• Safety.
• Quality Management.
• Patient Centered Care.

- Staff roles and responsibilities.
- Qualifications and ongoing training of staff.
- Safe staffing plans.
APEx® Standards

• The Process of Care.
• The Radiation Oncology Team.
• Safety.
• Quality Management.
• Patient Centered Care.

- Culture of safety program.
- Radiation safety.
- Emergency planning and preparation.
APEx® Standards

• The Process of Care.
• The Radiation Oncology Team.
• Safety.
• Quality Management
• Patient Centered Care.

- Facility and equipment.
- Information management.
- Quality assurance.
- Peer review.
APEx® Standards

• The Process of Care.
• The Radiation Oncology Team.
• Safety.
• Quality Management

• **Patient Centered Care.**

  • Patient consent.
  • Patient education and health management.
  • Performance measurement and outcome reporting
The APEx® Process

- Application and Payment
- Self-Assessment
- Facility Visit Preparation
- Facility Visit
- Final Determination

ASTRO Accreditation Program for Excellence
Safety and quality for radiation oncology practice

ACCREDITED
Program Basics

• APEx: Self-assessment
  – Internal review to gauge readiness.
  – Measures systems and processes.
  – Identifies deficiencies.
  – Reduces variations in practice.
  – Does not dictate what the processes must be, but verifies that something is in place.
APEx® Self-Assessment

• Consists of 3 stages:
  – Medical record review
  – Document upload
  – Interview questions

• Allows for multiple attempts:
  – Preliminary attempt gauges readiness.
  – Each attempt is reviewed.
  – Feedback report summarizes compliance.
  – Identifies deficiencies which can be addressed.
APEx® Self-Assessment

ASTRO Accreditation Program for Excellence

Safety and quality for radiation oncology practice
Accreditation

• Surveyors are a team of radiation oncology professionals- including dosimetrists.
• Review is an objective assessment of the facility.
• Scores are based on compliance with the standards.
• 4 year cycle.
• Fully accredited, provisional or denial.
Role of the Dosimetrist

• APEx emphasizes team work and employee involvement.

• Review is of the whole radiation oncology team.

• Scrutiny is not the appropriateness of planning, but the methodologies.

• Participation in both the self-assessment and the facility visit.
Evidence Indicator 3.1.1: The ROP verifies patient identity for each patient at each point in which patient-specific information is transferred from one information system to another, using two patient-specific identifiers.

Evidence Indicator 2.1.2: Includes documentation of factors that impact reproducibility including:

2.1.2c: Verification of accurate information transfer from simulation machines to treatment planning systems.

Evidence Indicator 2.2.1: A documented, patient specific directive guides treatment planning staff and defines target and normal tissue volume goals.

Verification of data transfer.

Documentation.

Non-verbal communication.
APEx®- Certification

- **5.1.4:** All medical dosimetrists possess or are eligible for certification as a Certified Medical Dosimetrist through the Medical Dosimetrist Certification Board.

- **Level 1: Evidence Indicator 5.2.1:** For each professional discipline, the ROP defines a process and a timeline for individuals who are eligible, but not currently certified, to achieve certification that is consistent with the requirements of Evidence Indicator 5.1.

[www.mdcb.org](http://www.mdcb.org)
APEx®- Training and Supervision

- **Level 1: Evidence Indicator 5.6.1:** The ROP defines and completes an initial training, orientation and documents the job-specific competency assessment process for each team member.
- **5.7.2:** Training and competency assessment for new equipment and/or procedures before either are put into clinical use.

- Site-specific work practices.
- Abilities and competencies.
- Suitably trained individuals performing under the direction of a QMP.
APEx®- Peer Review

- **Level 1: Evidence Indicator 13.1:** The ROP defines and implements a process for prospective, concurrent or retrospective peer review that specifies:
  - **Level 1: 13.1.1:** The objectives for peer-to-peer review.
  - **Level 1: 13.1.2:** The frequency of peer review activities.
  - **Level 1: 13.1.3:** The number and type of cases for peer review.
  - **Level 1: 13.1.4:** How the information obtained from peer review will be used for professional feedback and future learning.

- **Intra-disciplinary peer review.**
- **Dosimetrist-Dosimetrist.**
- **Prospective, current or retrospective.**
- **Objectives defined.**
- **Frequency determined.**
- **Learning tool.**
APEx®- Culture of Safety

• Policy:
  – What is reported?
  – When is it reported?

• Method:
  – How is it reported?

• Accountable individual:
  – Who deals with it?

• Safety rounds.
  – What we do about it going forward as a team.
PSO- Incident Reporting

RO-ILS®: Radiation Oncology Incident Learning System

The mission of RO-ILS is to facilitate safer and higher quality care in radiation oncology by providing a mechanism for shared learning in a secure and non-punitive environment.
General RO-HAC Findings

- **Communication.** A recurring issue and appears to be a significant driver of error.
- **Training and education.** A number of reports centered on missteps made involving students/trainees not remedied by staff.
- **Policies and procedures.** Events are related to failure to following, not lack of, appropriate policies or procedures.
- **Wrong site or dose.** Recurring theme meriting root cause analysis.
- **Incorrect isocenter.** Events with incorrect isocenter are largely near-miss events (identified prior to treatment), they reveal an error pathway that can cause serious harm to patients.
- **Changes to plan.** Changing a patient’s treatment once under way appears to be a risk-prone process.
- **Hastiness to commence procedure.** Root cause of many incidents, leading to near misses or patient incidents.
- **Review of plans.** The review of plans plays a key role in preventing errors from impacting patients.
- **Many QA processes are effective in catching near misses.**
APEx®- Roles and Responsibilities

- 12 month review of APEx standards by ASTRO
  - Continued Quality Improvement (CQI)
- QA and checking processes
  - Plan checks.
  - Verification of dosimetric results.
  - Weekly chart checks.
APEx® Surveyor

- Radiation oncology professional in the USA.
- Full-time employment.
- ASTRO member.
- Agree to APEx surveyor exclusivity.
- Complete training.

- $500 honorarium plus expenses.

- Go to www.astro.org/surveyor
APEx® Statistics

Facilities

- Applicants, 23%
- Site visit, 10%
- Accredited, 5%
- In progress, 62%

<table>
<thead>
<tr>
<th></th>
<th>Applications</th>
<th>Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicants</td>
<td>19</td>
<td>26</td>
</tr>
<tr>
<td>Self-assessment</td>
<td>31</td>
<td>69</td>
</tr>
<tr>
<td>Site-visit</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Accredited</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>56</strong></td>
<td><strong>111</strong></td>
</tr>
</tbody>
</table>

May 2016

ASTRO Accreditation Program for Excellence
Safety and quality for radiation oncology practice
APEx® Statistics

Practice Setting
- 65% Academic/University
- 35% Private/Community

Facilities per Application
- 62% Single facility
- 23% 2-3 facilities
- 15% 4+ facilities
Final thoughts......

Be involved in patient safety and quality improvement initiatives:

1. Participate in the accreditation process as part of the radiation oncology team at your facility.

2. Initiate an application. Be proactive in starting the process for your department.

3. APEx accreditation not an option? Have a robust quality program anyway!
Thank you!

APExSupport@astro.org

www.astro.org/apex