PEx

ASTRO Accreditation Program for Excellence

Safety and quality for radiation oncology practice

2016

ANNUAL REPORT

ASTRO

AMERICAN SOCIETY FOR RADIATION ONCOLOGY

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ASTRO

TARGETING CANCER CARE

EXECUTIVE SUMMARY

The ASTRO Accreditation Program for Excellence (APEx®) was created to support quality improvement in radiation therapy practices and evaluate the clinical programs provided by radiation oncology practices, focusing on quality and safety of radiation oncology processes.

Radiation oncology practices accredited by APEx:

- Undergo an objective, external review of radiation oncology programs, policies and processes based on evidence- and consensus-based standards
- Demonstrate respect for protecting the rights of patients and responsiveness to patient needs and concerns; and
- Adopt procedures to encourage safety and quality of care.

ASTRO analyzed APEx accreditation data from 2016 to set a baseline for comparison for future years as we continue to refine and develop the program as part of our own continued quality improvement.
In 2016, the first full calendar year of APEx accreditation, 52 new facilities initiated the application process. Among the 2016 applicants, one-third were from an academic setting and two-thirds were from a private or community-based setting, indicating the program's suitability for supporting quality improvement in both academic and private practices.

A total of 28 facility visits were conducted in 2016. For the facilities that received their accreditation by the end of 2016, two-thirds of these facilities received full accreditation, and one third were provisionally accredited. There were 11 facilities' determination in review. All provisionally accredited facilities received full accreditation after a corrective action plan was completed and reviewed. No practices were denied accreditation. As of December 2016, 66 main facilities and 77 satellites from 25 states had commenced the program. The distribution of APEx practices mirrors the national distribution of radiation oncology centers, with concentrations in densely populated areas.

Completion of the self-assessment components varied widely among applicants, and the time to complete is detailed further in this report. The most consistently challenging areas of the self-assessment were related to the following evidence indicators:

- **Comprehensive patient evaluation:** Consistent documentation of all the required elements captured at the initial consultation.
- **Timeout procedures:** Performing a timeout prior to each treatment was a universal practice, but meeting the APEx requirement of documenting this in the medical record for each encounter.
- **Intra-disciplinary peer review:** Multi-disciplinary and inter-disciplinary peer reviews were routinely done to a far greater extent than the APEx requirement for each professional group to have their own peer review process.

ASTRO staff introduced several measures to expedite the self-assessment process early in 2016, such as better instructional information and a self-assessment teleconference for facilities that complete the application phase. Other initiatives included adding sample documents to the resources tab of the APEx portal for those in the self-assessment, as a first step towards creating a quality management toolkit.

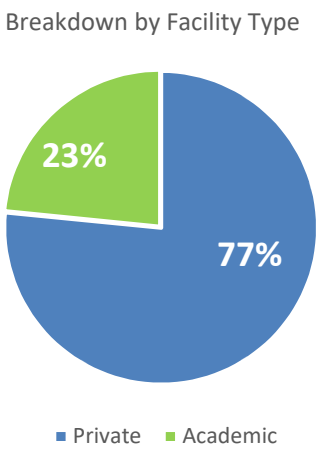
APPLICATION

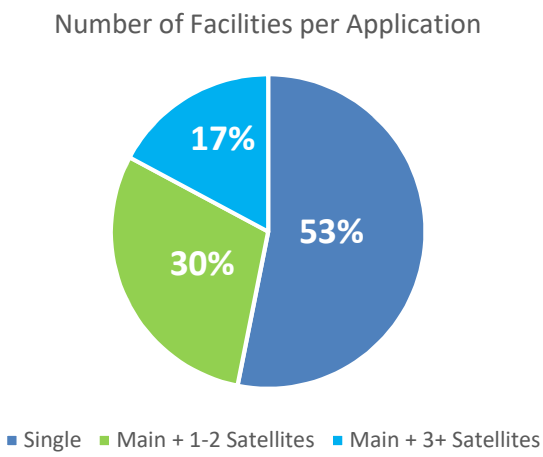
At the end of 2016, APEx had a total of 143 facilities participating in the program, of which 52 facilities had initiated the application process during the year. The growth for the first half of the year was 1-2 new facilities per month, but spiked around the time of the 2016 ASTRO Annual Meeting in September.

Practices were one third from an academic setting and two thirds from a private or community-based setting. This demonstrates an accreditation program with broad appeal that is servicing all radiation oncology departments irrespective of their practice setting.

Over half of APEx applicants were single facility departments or had elected to accredit each facility independently. Nearly a third of applicants consisted of a main facility with one or two satellites, and the remaining applicants were larger networks with a main facility and three or more satellites.

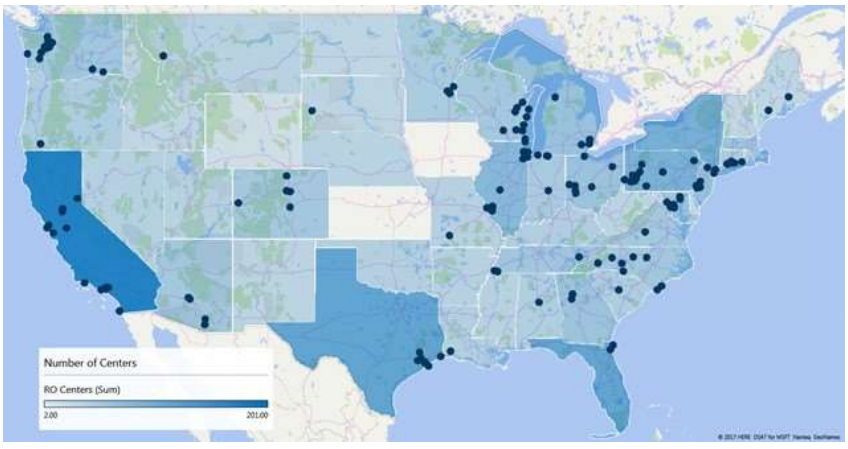
Practice Type





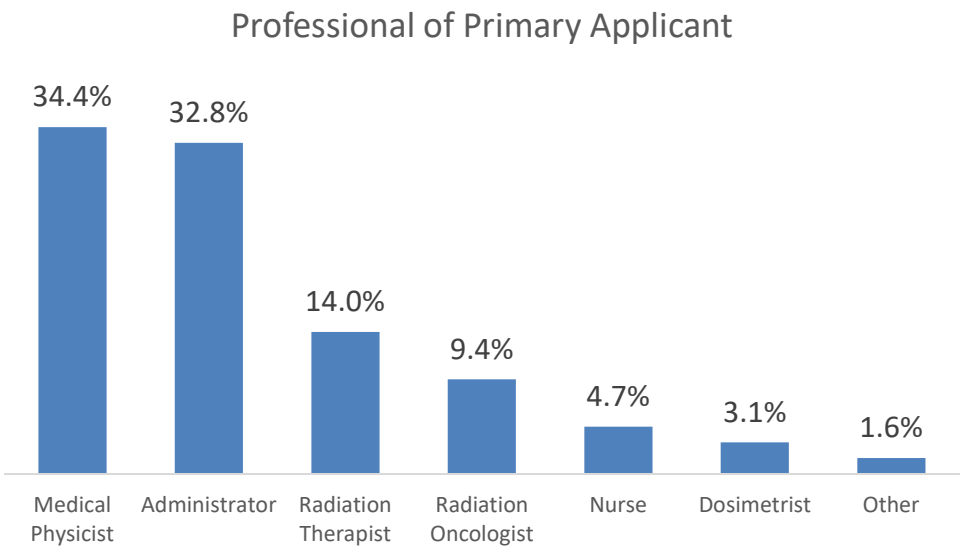
Geography

The location of practices in the APEx program (both accredited and in progress) as of December 2016, is displayed below, with APEx facilities located in 25 states. The distribution of facilities closely paralleled the distribution of US radiation oncology centers with higher concentrations in densely populated areas.



APEx Administrator

The APEx administrator initiates the APEx application in the web-based portal, has sole data input rights throughout the application and, though others may input data during the self-assessment, is responsible for final submission of each section of the self-assessment. Medical physicists and practice administrators were most likely to initiate the accreditation process within the APEx portal, though ASTRO recognized the significant role of the radiation oncologist in the decision-making process and championing the accreditation program at their facility.



During the self-assessment phase, access for additional staff members is available and encouraged, as the program is a review of the entire radiation oncology team and processes. Participation in the self-assessment across the practice promotes teamwork and more effective quality improvement activities.

SELF-ASSESSMENT

For each Radiation Oncology Practice (ROP) only the main facility completes the self-assessment, though the satellites should be involved during the self-assessment process to enable consistent practices across the network. The self-assessment component of APEx was where the largest duration variance was found in 2016 and the time for each section to be completed varied considerably as demonstrated below.

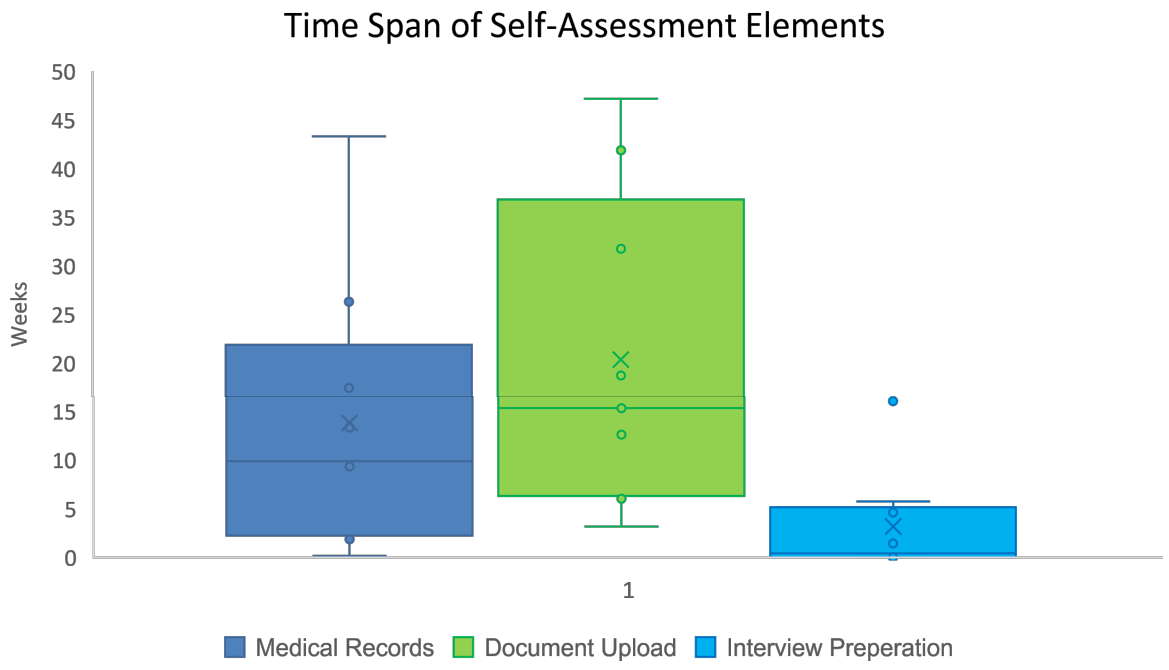
In 2016, a facility took as little time as one day to complete the medical record section, with the median time to complete this section being 10 weeks. It is anticipated this will be further reduced through improved self-assessment tools such as a more robust Self-assessment guide, teleconferences, and short videos available for facilities in preparation for the medical record section.

Additionally, a facility spent as little as 3 weeks to complete the document upload section, with the median time for a practice to submit documents for review being 15 weeks. Current initiatives for improving the APEx process include adding sample documents to the APEx resources, consolidating the number of uploaded documents and providing a quality management toolkit.

The interview preparation section was a considerably faster step to complete. Facilities can print the questions out and use it as a tool to prepare staff for the types of questions they will encounter during the facility visit.

Time to complete each section of the self-assessment

Medical Records	Median time 10 weeks
Document Upload	Median time 15 weeks
Interview preparation	Median time 3 days



Evidence Indicators

The following were deficiencies most commonly found during the self-assessment process in 2016.

Patient Evaluation (Evidence Indicator 1.1)

These evidence indicators require documentation within the medical record indicating that the radiation oncologist performed or reviewed each of the specified components of a comprehensive patient evaluation prior to any pre-treatment procedure. These include patient history (current medications, implantable cardiac device, pregnancy status, allergies, and previous radiation therapy history, as applicable), a review of systems, physical examination findings, pathology review, staging or documentation of metastatic disease, laboratory findings, imaging studies, pain assessment (pain intensity assessment and pain management plan), and an initial recommendation for care. To meet this requirement, each indicator must be specifically addressed or documented as reviewed by the radiation oncologist, unless an exclusion applies.

From a quality perspective, the importance of addressing these elements to assist in pre-treatment decision making cannot be overlooked. Additionally, when an element is left undocumented the assumption it has not been performed or addressed must be inferred.

Time-Out Procedures (Evidence Indicator 3.2)

These evidence indicators describe the essential components of a documented timeout prior to every patient procedure. For each patient, a timeout is performed prior to all procedures and treatments, which is then documented in the medical record. This includes:

- Verification of patient identity using at least two patient-specific identifiers.
- Verification of patient treatment site.
- Verification of correct patient positioning.
- Verification of treatment delivery parameters against the approved prescription and plan.

Performing a timeout procedure prior to every patient encounter is commonplace. However, the APEx requirement of documenting these in the medical record proved to be a challenge for many facilities. The verification of the timeout procedure allows staff to take ownership of this process and is an important aspect of a safety culture.

Peer Review (Standard 13)

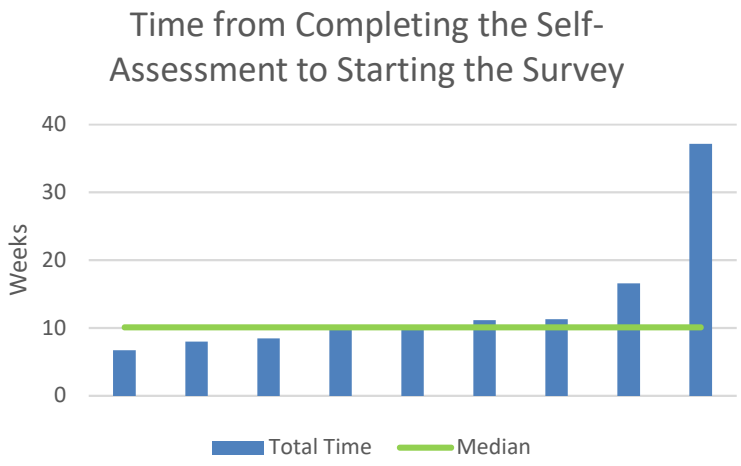
Intra-disciplinary peer review, at a minimum, should include a peer review process for each of the following professions: physicians, physicists, radiation therapists and, if applicable, dosimetrists. The facility defines and implements a process for prospective, concurrent or retrospective peer review that specifies the objectives, frequency and format of professional feedback and future learning potential.
APEx addresses many forms of peer review within the department including multidisciplinary (e.g. tumor boards) and interdisciplinary meetings (e.g. safety rounds). However, this standard is aimed at the potential for learning from other similarly qualified peers (e.g. physician to physician, physicist to physicist, etc.) and so facilities are encouraged to develop learning opportunities for each cohort. To date, many applicants have cited interdisciplinary review processes (e.g. chart rounds) or quality assurance procedures for compliance which does not meet the APEx requirement.

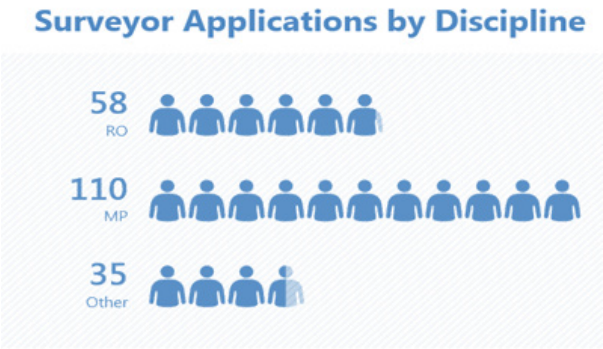
FACILITY VISIT AND DETERMINATION

In 2016, the facility visit was conducted at a median timeframe of 11 weeks after the completion of the self-assessment. The outlier at 37 weeks was at the facility's request due to a hospital wide information system installation that coincided with completing the self-assessment.

All facility visits were conducted on a date selected from the facility's first preference of dates, with only one exception where a facility had to select additional dates. All facilities were encouraged to have a Monday and/or Friday among their potential dates as weekend travel allows surveyors the convenience of having less disruption to their own work schedule.

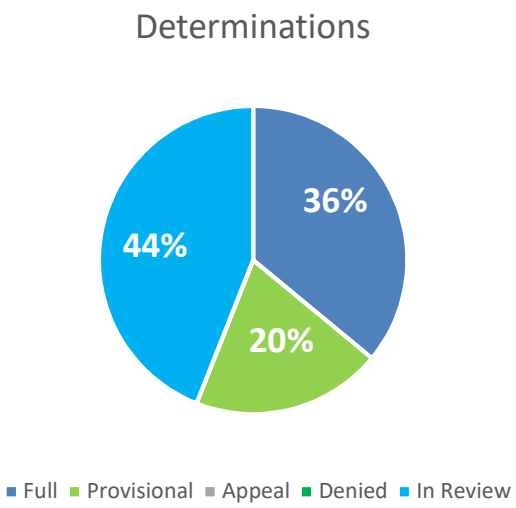
Time from completing the Self-assessment to the date of the facility visit	Median time 10 weeks
Time from completing the facility visit to receiving the determination	Median time 5 weeks





APEx had received 203 applications from radiation oncology professionals interested in being a surveyor. Of those applicants, 130 have successfully completed the training and are part of the APEx surveyor pool.

Number of full accreditations, provisional accreditations and denials



In 2016, 23 facility visits were conducted. All facilities received their determination between 4 and 6 weeks after the facility visit was completed.

Of the facilities receiving determinations by the end of the year, two-thirds received full accreditation and one third were provisionally accredited and required a corrective action plan to be implemented before accreditation was granted. No facilities were denied accreditation. At year end, 11 facilities' determination were still in review.

The APEx program allows for quality improvement to be addressed during the self-assessment and enables facilities to successfully implement process change prior to completing the program. This transparency and continued development provides an accreditation platform based on initiatives that enable consistent and high-quality care from all members of the radiation oncology team.

QUALITY IMPROVEMENT INITIATIVES

ASTRO clarified some APEx evidence indicators to improve understanding of the requirements. These include:

Evidence Indicator	Description	Original	Change
1.1	Comprehensive Patient Evaluation	All the elements of 1.1 must be documented with specific detail in the comprehensive patient evaluation by the radiation oncologist.	All the elements of 1.1 must be referenced by the radiation oncologist. Other staff can contribute to the information gathering. Specific details can be referenced from another location in the medical record and then documented as reviewed by the radiation oncologist.
2.3.5	Prescription contains documented dose per fraction.	Exclusion: Non-fractionated treatments.	Exclusion removed. All prescriptions must have the dose per fraction documented, including single fraction schedules.
2.3.6	Prescription contains documented number of fractions.	Exclusion: Non-fractionated treatments.	Exclusion removed. All prescriptions must have the number of fractions documented, including single fraction schedules.
3.3.1	End of treatment chart check.	A qualified medical physicist (QMP) performs an end of treatment chart check.	A medical physicist, under the supervision of a QMP performs an end of treatment chart check.

3.5	Physics plan checks and patient-specific plan QA.	A qualified medical physicist verifies safety review checks prior to treatment implementation.	Qualified facility staff, under the supervision of a QMP, verifies QA checks prior to treatment implementation.

Clarification:

EI 1.1: The APEx committee recognized the value in having all elements of a comprehensive patient evaluation addressed as part of the initial consultation process. However, it was acknowledged that other team members may be responsible for gathering the information. The requirement is that when the information is collected, the radiation oncologist reviews and documents this as part of the evaluation process.

EI 2.3.5 and 2.3.6: In accordance with ASTRO's white paper on standardized prescriptions, the dose per fraction and number of fractions must always be documented, including when treatment is only a single fraction.

EI 3.3.1: The designation that a QMP must perform treatment chart checks was changed to allow all suitably trained and competency assessed physicists to conduct the review.

EI 3.5: Plan check and plan QA was initially designated as a QMP only role. However, the APEx committee acknowledged that other suitably trained and competency assessed staff members with appropriate competency assessments can carry out the checks.

CONCLUSION

APEx increased its market share of accrediting radiation oncology facilities in 2016. Findings from the program will potentially highlight variances in the delivery of radiation oncology care, inform educational offerings, and identify topics for clinical practice statements and quality measures development. ASTRO will continue its commitment to improving the quality and safety of patient care in our specialty.