ASTRO Accreditation Program for Excellence

Safety and quality for radiation oncology practice

2018

ANNUAL REPORT

ASTRO

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EXECUTIVE SUMMARY

In 2018, ASTRO's Accreditation Program for Excellence (APEx®) completed its third full year of assessing the program data and producing reports. The APEx program was created to support quality improvement in radiation therapy and evaluate the clinical programs provided by radiation oncology practices (ROP), focusing on high-quality and safe care. APEx accreditation involves four major phases: submitting an application, completing a self-assessment, having a facility visit, and then receiving a determination. Each phase of the program, including completion times, are detailed later in this report.

The APEx program currently has 224 facilities (109 practices) from 33 states, and the District of Columbia. During 2018, 31 facilities started an application, 36 facilities received their final determination with another 13 facilities awaiting their determinations. This year saw the first denial of accreditation within the APEx program, issued to a multi-facility practice with two facilities. Currently, there are over 100 facilities accredited within the APEx program.

Introduced in 2018, a discounted rate is available to entities consisting of more than ten facilities currently in the APEx program. If an entity has 10 facilities, under the same corporate ownership or affiliation, active in the program (completed application through current accreditation), ASTRO offers a discount of $2,000 off the price of any subsequent main facilities and $1,000 off the price of any subsequent satellites applying for APEx.

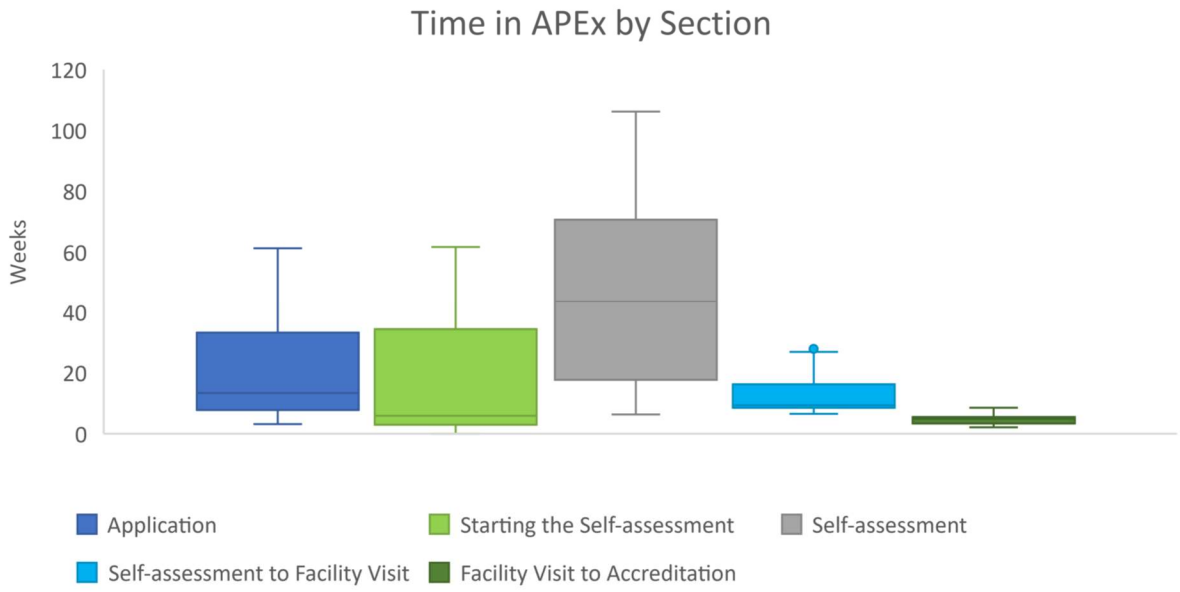
During 2018, a change was made to the way determinations were awarded to multi-facility practices. After July 30th, facilities that participated in APEx as part of a multi-facility application had their determination assessed as a single practice. This new process results in one accreditation determination applied to all facilities within the applicant group. The determination is based on the results of the lowest performing facility within the multi-facility practice.

The first major update to the Self-Assessment Guide© was completed at the end of 2018. ASTRO aimed to improve the content of the guide while decreasing the overall length of the document. Along with updating the components of the self-assessment to reflect the updated Self-Assessment Guide, ASTRO decreased the number of documents required during the document upload section of the self-assessment.

With over three full years of participation, ASTRO has begun reviewing program performance to assess participant's compliance with the evidence indicators. This data will assist with continued quality improvement for the program and on facility-related projects, like the creation of sample documents and supportive materials. Compliance with the APEx standards and the lowest performing evidence indicators are detailed later in this report.

APEx accreditation involves four major phases: submitting an application, completing a self-assessment, having a facility visit, and receiving a determination. The time to complete each phase varied widely among applicants, as time spent during both the application and the self- assessment phases are driven by the facilities.

When looking at the overall time practices spend within the APEx program, practices allowed a median time of 6 weeks to elapse between gaining access to self-assessment to when they commenced inputting data. This period has been described in the chart below by "Starting the Self-Assessment" and reflects a hesitation to initiate the APEx process. ASTRO strongly recommends starting the self-assessment as soon as the practice has access to it.



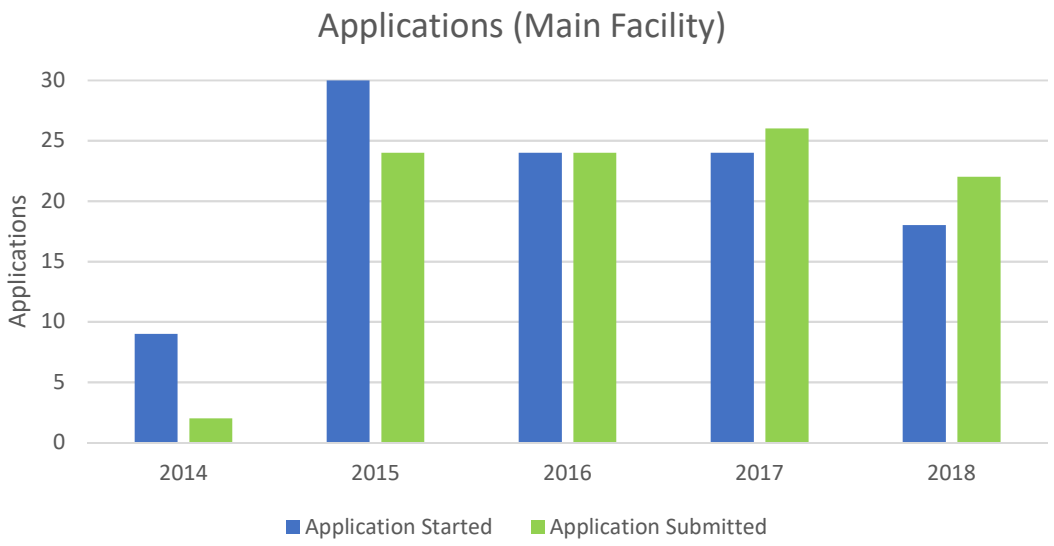
The self-assessment phase of the program is the longest and most intensive for practices, accounting for most of the overall time spent in APEx, as a practice performs a self-reflection of their compliance with the program's evidence-based indicators. During this phase, each practice may have a different focus area due to the practice's unique quality improvement requirements, and therefore leads to variation in time spent per practice.

After completion of the self-assessment, the practice works with ASTRO to schedule their facility visit(s) before receiving their determination from the Practice Accreditation committee. Practices receive their determination in a median time of three months after the completion of the self-assessment phase.

Each phase of the APEx program is broken down into more detail throughout the rest of this report.

APPLICATION

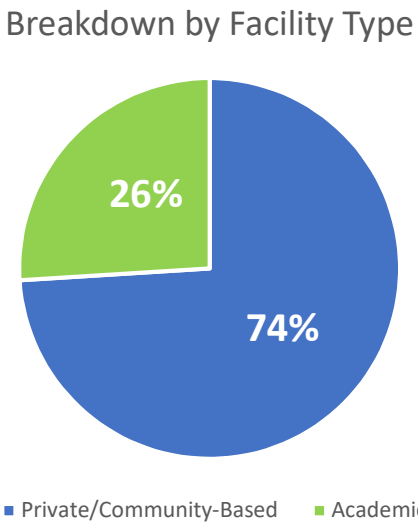
At the end of 2018, APEx had a total of 224 facilities participating in the program, of which 31 facilities had initiated the application process during the year. Since 2015, the APEx program has averaged 24 practices that start an application and submit payment each year. The application phase includes a 6-page application, legal agreements and payment. Practices completed the application phase in a median time of four months, with some practices completing the phase in as little as one week.

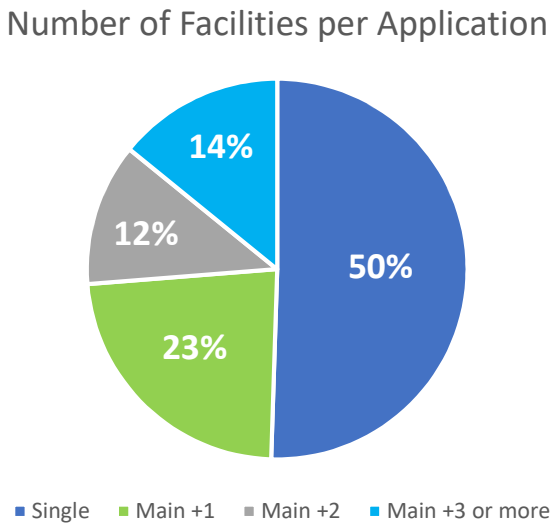


Practice Type

Practices were one-quarter from an academic setting and three-quarters 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 settings.

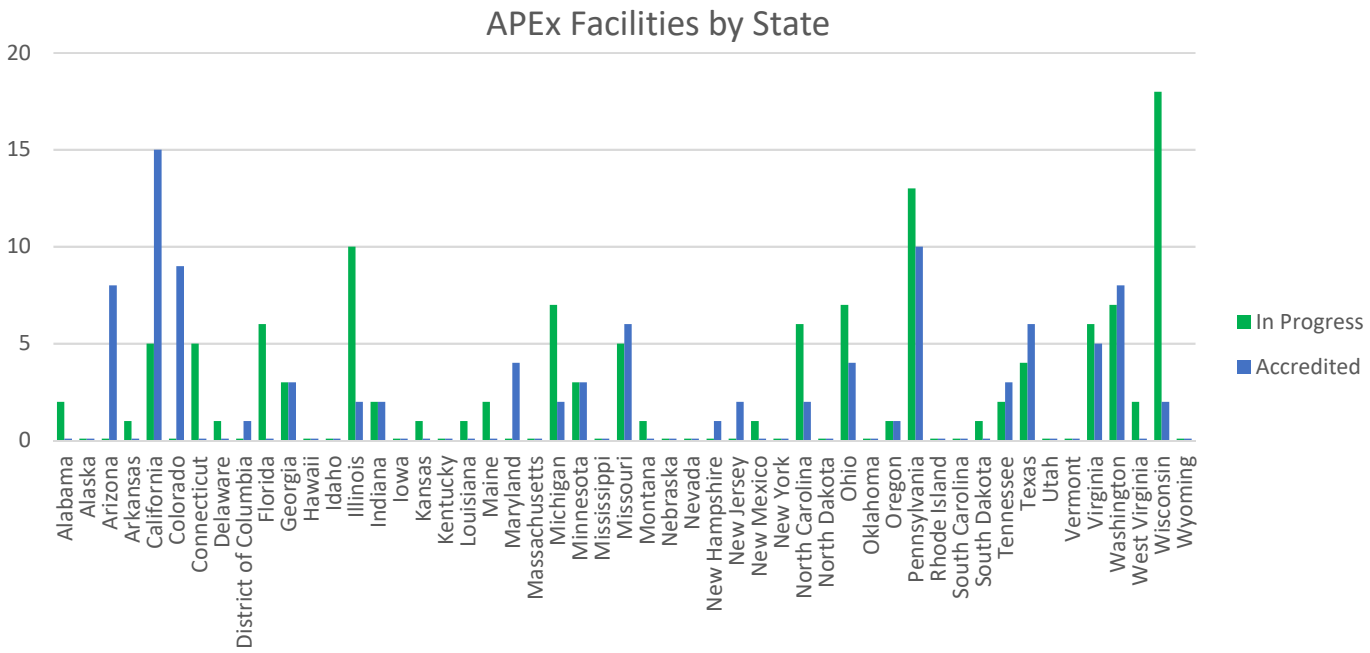
Half of the APEx applicants were a single facility practice or were part of a larger practice but had elected to participate independently. Nearly one-quarter of applicants consisted of a main facility with one satellite, and the remaining applicants with a main facility and two or more satellites.





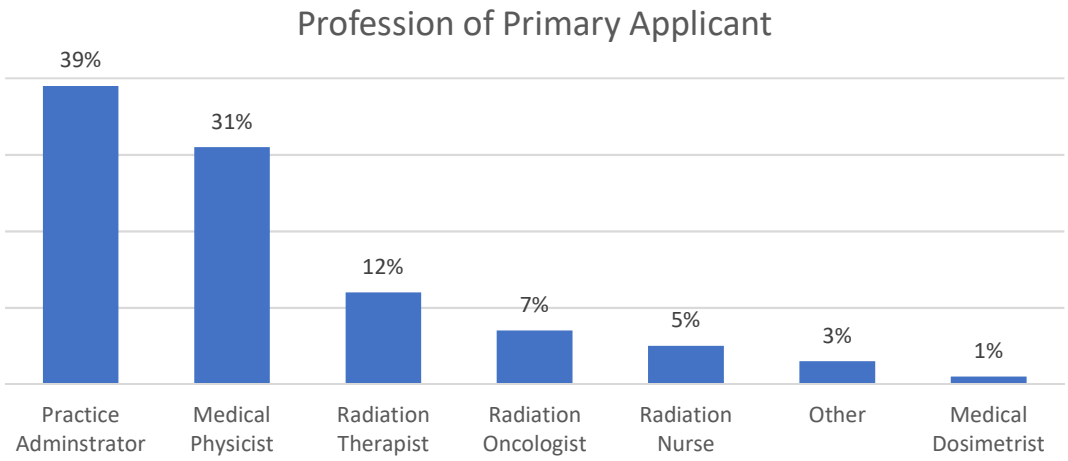
Geography

The location of practices in the APEx program (both accredited and in progress) as of December 2018, is displayed below, with participating facilities located in 33 states and the District of Columbia. 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 application in the APEx portal, has sole data input rights throughout the application and, though others may input data during the self-assessment, this person is responsible for submitting each section of the self-assessment. Practice administrators and medical physicists were most likely to initiate the accreditation process within the APEx portal, though ASTRO recognizes the significant role of the radiation oncologist in the decision-making process and championing the accreditation program at their facility. The APEx administrator is tasked with adding other team members to the portal once the application phase is complete and the practice moves into the self-assessment phase.

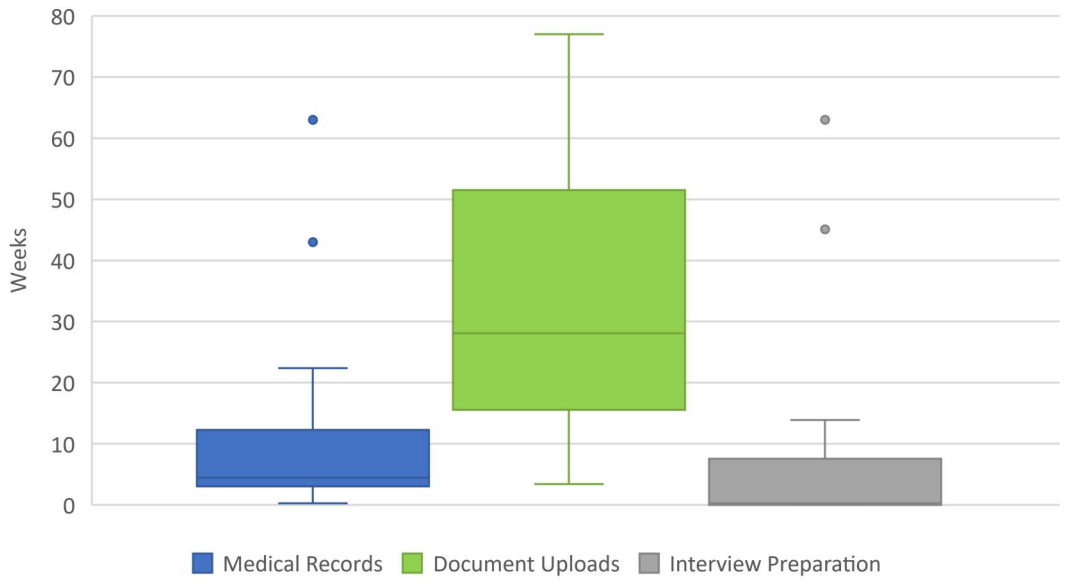


SELF-ASSESSMENT

For each ROP, only the main facility completes the self-assessment, though the satellites should be involved during the self-assessment process across the practice. The self-assessment component of APEx had the largest duration variance in 2018 and the time for each section to be completed varied as demonstrated below. On average, facilities took ten months to complete the self-assessment phase and be deemed ready to schedule a facility visit.

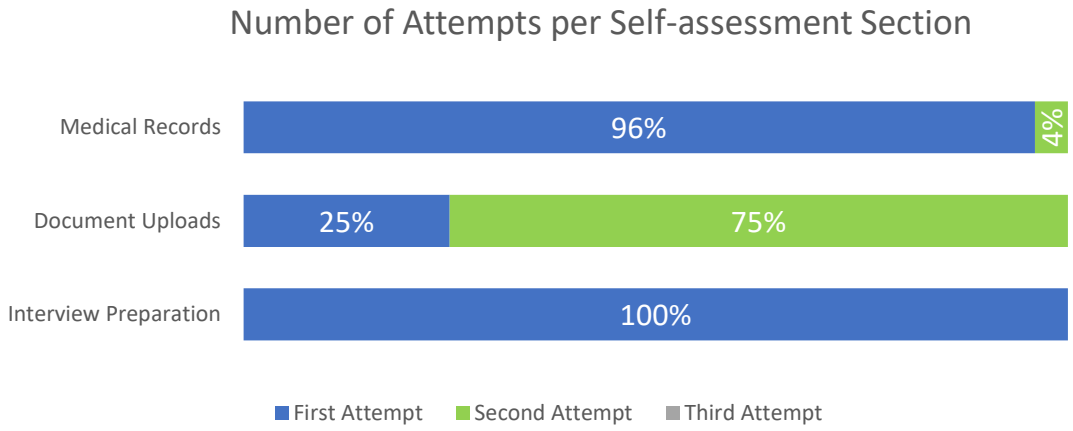
Time to complete each section of the Self-Assessment

In 2018, a facility took as little as two days to complete the medical record section, with the median time to complete this section being four weeks. The median time for a practice to complete the document upload section was four months, although one practice spent only three weeks completing this section. In comparison, a majority of facilities completed the interview preparation section in a day. Facilities may print the interview preparation questions to use as a tool to prepare staff for the types of questions they can expect to encounter during the facility visit.



Number of attempts for each section of the Self-Assessment

The APEx self-assessment allows for a maximum of three attempts at each section. The preliminary attempt gauges readiness for the facility visit and is an important first step in the accreditation program. Two further attempts for each section are available if compliance with the standards are not met. This allows the practice to examine low performing areas and implement process improvement to address them, which is measured on the subsequent attempt(s). Additionally, physicians can use the APEx PQI template for completing Part IV of the ABR quality component of their MOC. The template can be found on the ASTRO website: https://www.astro.org/Daily-Practice/PQI-Templates.

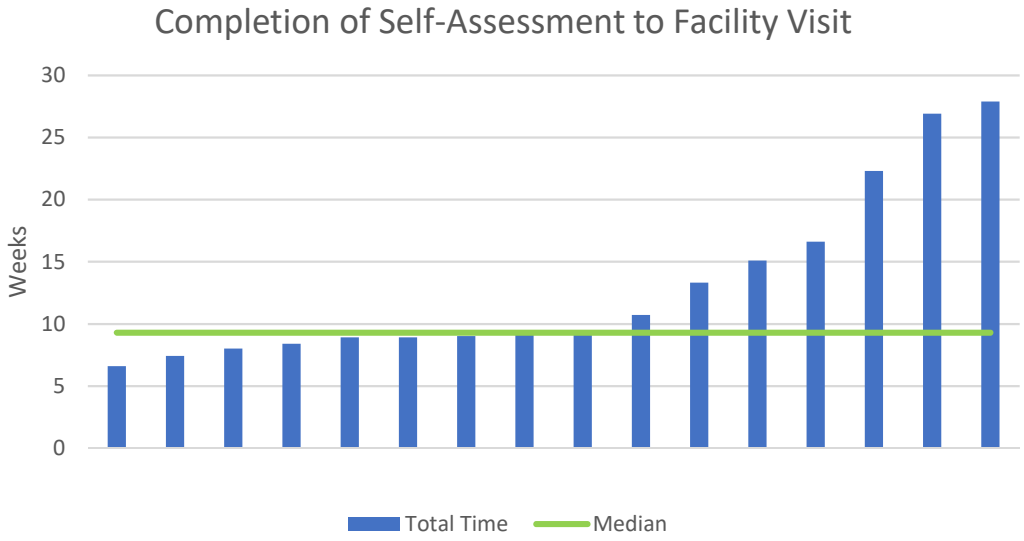


In 2018, most of facilities successfully completed the medical record review and interview preparation with a single attempt.

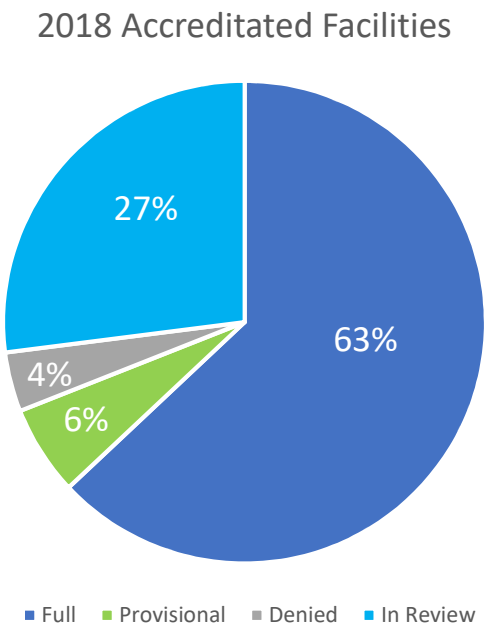
Document Uploads required more than one attempt for three-quarters of practices. However, no practice required the third attempt. The main challenge for facilities was the lack of formal documented policies and procedures. Another challenge was a misinterpretation of the APEx requirements. ASTRO has tried to address these by generating sample documents and updating the Self-Assessment Guide to provide better clarification on the requirements. Some practices have used participation in the APEx program as a tool for developing a quality management program.

FACILITY VISIT AND DETERMINATION

In 2018, facility visits were conducted at a median timeframe of 9 weeks after the completion of the self-assessment. Practices were asked to provide a list of preferred dates for the facility visit and all facility visits were conducted on a date selected from these lists. All visits were conducted on a Monday or Friday, as weekend travel allows surveyors the convenience of having less disruption to their work schedules. Many facilities completed the facility visit within nine weeks from the completion of the self-assessment.



Percentage of Determinations

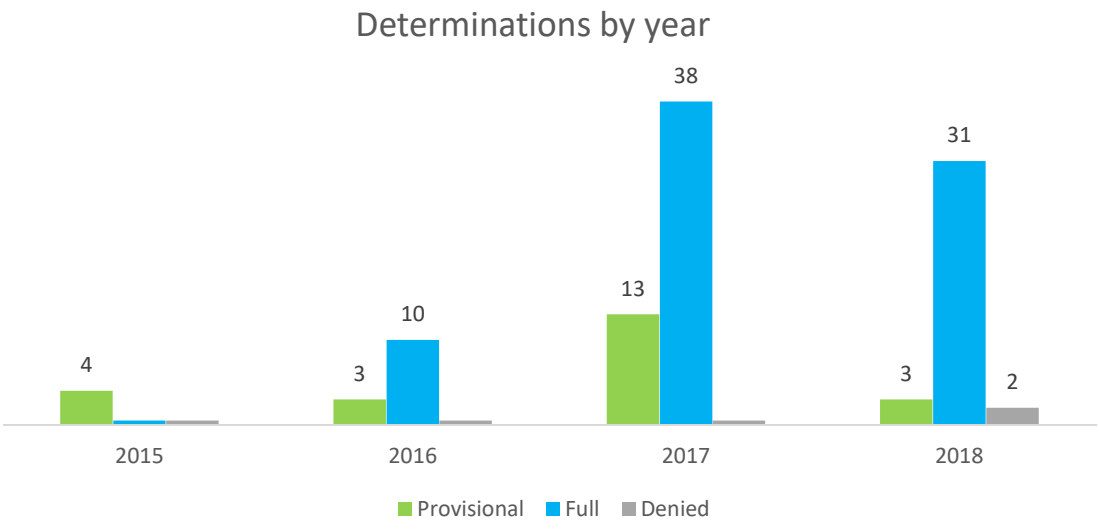


In 2018, 36 facilities received their final determinations, all from facility visits conducted in 2018. Facilities received their determinations around five weeks after the facility visit. There were 13 facilities who had completed their facility visit by the year end, but were under review and completed in early 2019.

A majority of the determinations were awarded full accreditation, with a small percentage receiving provisionally accreditation and requiring a corrective action plan to be implemented before accreditation was granted. There was one multi-facility practice that was denied accreditation in 2018.

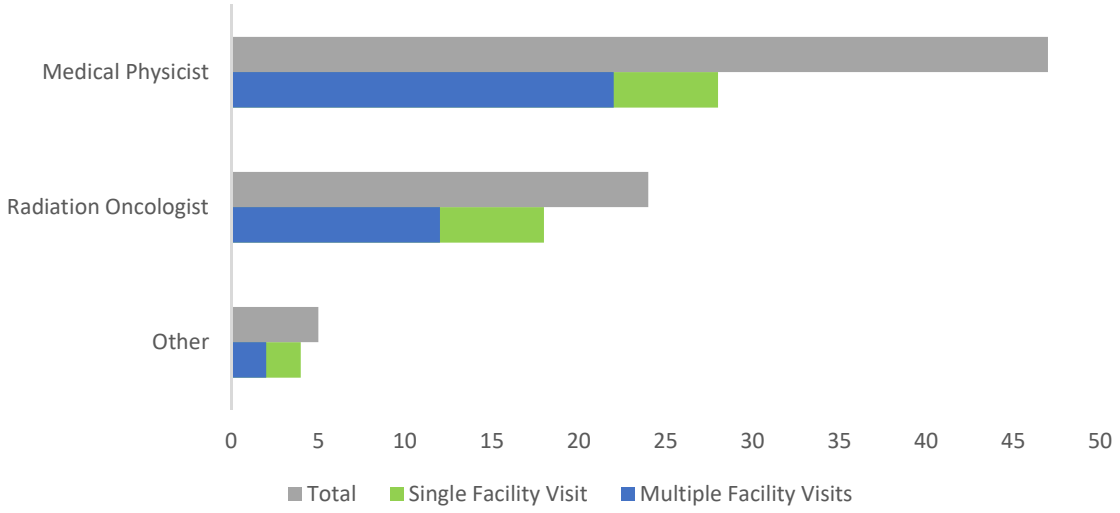
Determinations by year

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 feedback provides transparent quality improvement metrics within the accreditation platform and enables the practices to achieve consistent and high-quality care from all members of the radiation oncology team.



SURVEYORS

As of December 31, 2018, 76 radiation oncology professionals are a part of the APEx surveyor pool, which includes 47 medical physicists, 24 radiation oncologists, 4 radiation therapists and 1 dosimetrist. From the total pool of available medical physicists, 22 surveyors have been on multiple visits and 6 additional surveyors have completed a single visit. From the radiation oncologist surveyor pool, many have been on at least one facility visit while half have performed multiple surveys. Currently, to encourage a broader geographical distribution of surveyors ASTRO is only accepting radiation oncologist surveyor applications, focusing on the mid-west and west coast.



PERFORMANCE OF EVIDENCE INDICATORS

At the end of 2018, ASTRO began reviewing aggregate data from the first three years of the program to identify trends on how individual practices were performing on the evidence indicators. During the self-assessment phase, each facility completes a self-reflection on their compliance with the APEx standards. This process leads to higher performance during the facility visit, as it allows the facility to implement changes or confirm their compliance with the standards. This improved performance is demonstrated by the fact that the highest performing evidence indicators during the medical records review section of the self-assessment were also the highest performing when reviewed by surveyors during the facility visit.

Medical Record Most Improved

The most improved evidence indicators between the self-assessment phase and the facility visit phase were verification of accurate DICOM transfer and transmission of the comprehensive patient evaluation and post-treatment summary to other involved providers. Facilities were able to work on their processes between the self-assessment phase and the facility visit based on APEx feedback reports after submission of the medical records section during the self-assessment.

EI	Name of Requirement	Average Compliance Change from SA* to FV**
2.1.3	The ROP staff, during DICOM information transfer, verifies that information from simulation transfers correctly to the treatment planning system.	+ 15%
1.4.1	The ROP actively transmits the comprehensive patient evaluation to other involved providers within one month after consultation.	+ 10%
15.1.1	The ROP completes an assessment of patient educational needs for management of side effects before treatment begins and at least one time during the course of treatment when applicable.	+ 10%
1.2.4a	During the on-treatment visit, the radiation oncologist reviews and documents the patient's pain intensity assessment.	+ 9%
1.4.2	The ROP actively transmits the post-treatment summary to other involved providers within one month of completing the course of treatment.	+ 9%

*SA = Self-Assessment **FV=Facility Visit

Medical Record Lowest Performance

The lowest performing evidence indicators in both the self-assessment and the facility visit medical records were items requiring documentation during either the comprehensive patient evaluation or post-treatment summary, performed by the radiation oncologist. Most noncompliance was due to missing documentation for pertinent negative results. Without the documentation of pertinent negative results, ROP staff may be required to make assumptions about the results. APEx follow's the quality mantra "*If it is not documented, it is not done*" which attests to the importance of documenting positive results as well as negative results. The evidence indicators that lacked consistency of documentation were pregnancy status, concurrent systemic therapy and pain management plan for unresolved pain.

Document Upload Lowest Performance

The aggregate data also highlighted the lowest performing policies and procedures during the facility's first attempt at document upload. This will assist ASTRO staff with creating sample documents to alleviate the misinterpretation of APEx requirements.

EI	Requirement	Compliance %
6.3	Locum/Per Diem process, including background and certification review, orientation and completion of competency before treating without direct supervision.	69

9.1	Clinical Emergency Plans (falls, cardiac arrest, allergic reactions, clinical continuity, failure of equipment during treatment, etc.).	32
9.2	Emergency Response (power failure, information system failure, radioactive material spill, and external threats, including natural disasters).	72
12.4	The ROPs comprehensive quality management review includes trend and analysis of machine calibrations, QA results, service reports and downtime.	45
13.1	Peer to Peer Review for the radiation oncologist, medical physicist, dosimetrist and radiation therapist.	68

UPDATES TO THE APEx PROGRAM

Some aspects of the APEx program underwent updates in 2018 as ASTRO demonstrated an on-going commitment to the program's own quality improvement. These revisions to the standards, determination and self-assessment were the first major changes since the program launched.

As the APEx program continues to grow, the Practice Accreditation Committee and ASTRO staff will routinely review the requirements of evidence indicators and evaluation criteria, overall process and workflow of the APEx portal in a continual effort to improve quality and safety initiatives within the program.

Program Scoring

As of June 1, 2018, the following evidence indicators were updated to Level 1 requirements.

EI #	Description of the Evidence Indicator
2.1	A simulation procedure is conducted according to the written simulation directive of a radiation oncologist.
2.2	The treatment planning process is based on a documented, patient-specific planning directive that guides treatment planning staff and defines target volume and normal tissue goals and constraints.
6.1	Safe staffing plan: Specification of the number of each professional discipline required to be on-site, directly involved in patient treatment (including at least two radiation therapists per patient when the EBRT is being delivered) or available remotely during operating and non-operating hours (consistent with ASTRO's 2018 publication "Medicare's Physician Supervision Requirements").

7.3	When a patient safety event occurs: • The ROP undertakes an immediate review, with the goal of understanding underlying factors and acting to prevent future occurrences. • The ROP complies with the institutional, state, local and national requirements for reportable patient safety incidents.

Determinations for Multi-facility Networks

Beginning August 1st, 2018, facilities that participated in the APEx program as part of a multi-facility application had their determination assessed as a single practice. This change results in one accreditation determination applied to all facilities within the group, based on the results of the lowest performing facility.

Reduction of Required Document Uploads

In October 2018, ASTRO decreased the number of documents required during the document upload section of the self-assessment by merging similar requirements into a single upload. This reduced the number of required documents from a possible 80 to 60 with most facilities required to upload an average of 53 documents. The reduction was supported by an updated Self-Assessment Guide. The change in document upload requirements did not affect facilities' completion time of the self-assessment this year, but we anticipate that the change will reduce the time for completion in 2020.

Discount Rate

A discounted rate is available for entities consisting of more than 10 facilities and was introduced in 2018. If an entity has 10 facilities under the same corporate ownership or affiliation active in the program (completed application through current accreditation) ASTRO offers a discount of $2,000 off the price of any subsequent main practices and $1,000 off the price of any subsequent satellites applying for APEx. As of the end of 2018, no practice has taken advantage of this discount.

CONCLUSION

APEx increased its market share of accrediting radiation oncology facilities in 2018. Findings from the program will potentially highlight variances in the delivery of radiation oncology care, inform educational offerings, and assist with quality measures development. ASTRO's commitment to improving the quality and safety of patient care in our specialty is unwavering.