ACR-ASTRO Radiation Oncology Practice Accreditation Program

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Accreditation Program Goals

- **Provide impartial, third party peer review**
- **Evaluate and promote quality of care**
- **Recommend practice improvement**
- **Be educational, not punitive**

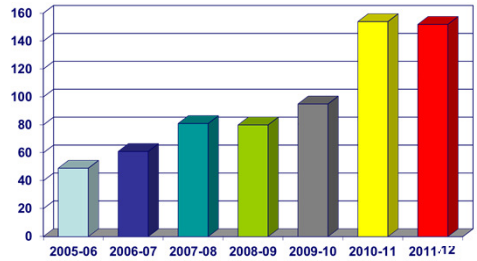
History of Radiation Oncology Practice Accreditation

- **Established in 1987 by the ACR**
- **Followed *"PATTERNS OF CARE"***
- **1ST SPECIALTY TO MONITOR PRACTICE**
- **Collaborative with ASTRO 2008**
- **Accreditation is a cooperative effort between the ACR and ASTRO to establish a strong foundation on which the radiation oncology practice accreditation program can continue to grow and develop**

ACR and ASTRO ROPA Partnership

- Improved visibility of the program
- Increased number in the surveyor pool
- Increased number of sites seeking accreditation
- Accreditation a key element of ASTRO's target safely campaign

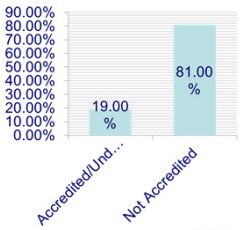
Radiation Oncology Accreditation Program Growth 2005 - 2011



Applications have **TRIPLED** in 5 years

ACR-ASTRO ROPA Statistics

- Where are we at?
  - Accredited: 353
  - Under review: 113
  - VA facilities: 32/33
- Where do we want to go?



Accreditation is a Voluntary Process

- The Easy Way or the Extra Steps

Why is Accreditation Important?

- Evidence of achievement in the areas of quality and patient safety
- Education and learning process for staff
- Demonstrates commitment of the facility to strive to meet the highest standards in the field of radiation oncology
- Enhances credibility in the eyes of the public
- Broader recognition by peers in the field

Why is Accreditation Important?

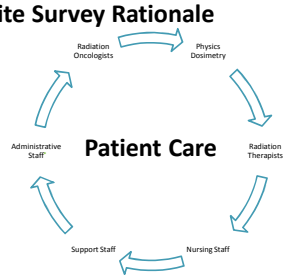
- **Method of heightening the culture of safety**

ACR-ASTRO ROPA Process

- Electronic Application/Survey Process
  - Implemented January 2010
  - Paper applications no longer accepted
  - Data is submitted through a secure web site

ACR-ASTRO ROPA Process

- Onsite Survey Rationale



ACR-ASTRO Surveyors

Surveyors must be:

- ✓ ABR Certified
- ✓ ACR or ASTRO Member
- ✓ In Active Practice in Radiation Oncology

ACR-ASTRO ROPA Process

- **Onsite Survey**
  - Physician/Physicist Survey Team
  - Interview of Key Staff
  - Tour of the Facility
  - Review of Charts
  - Review of Quality Improvement Activities
  - In-depth Interview of the Physicist
  - Brief Exit Interview

ACR-ASTRO ROPA Process

- MD/Physicist Data Collated by Office Staff
- Survey Report and Data Reviewed by an MD/Physicist Committee Members
- Report Sent to the Facility

ACR-ASTRO ROPA Process

- Accreditation
  - 3 Year Award
  - Report Always Associated with Recommendations for Improvement

ACR-ASTRO ROPA Process

- Deferral with Corrective Action Plan
- Accreditation will be given with Submission of a Corrective Action Plan
- 90 days to submit corrective action plan (CAP)
- Strongly Recommend Self Audit to Assure Implementation of CAP

ACR-ASTRO ROPA Process

- Denial with CAP
- 90 days to submit CAP
- After committee approval of CAP, facility must participate in a follow up survey (6-9 months after response to CAP is received)
- Re-application fee ($5000) required

ACR-ASTRO ROPA Survey Process Corrective Action Plans

- Need to address each of the recommendations in the report
- May involve submission of additional documentation such as physician peer review, physics report, etc.

ACR-ASTRO ROPA Process
Multi Site Survey

- Single Medical Director
- Single Physics Group
- Uniform charts, policies & procedures
- Distance between sites < one hour

ACR-ASTRO ROPA Survey Process
Consultative Survey

- Does not lead to accreditation
- Includes all of the activities performed during accreditation but with a special emphasis on areas identified by facility as needing a more comprehensive review
- 2 day survey with a 3 or 4

ACR-ASTRO RPOA Process

Single Site $9500.00

Each additional site $3000.00

Includes surveyor travel

Guidelines for ROPA Standards

- Appropriateness Criteria (ACR)
- Practice Guidelines (ACR, ASTRO)
- NCCN Guidelines
- Technical Standards (ACR)
- Task Group Reports Recommendations 40, 142, 51, 53, 103

MD Components

- History and Physical
- Medical Decision Making
- Simulation
- Planning
- On Treatment Visits
- Portal Imaging
- Completion Summary

ACR Practice Guideline for Radiation Oncology

- Included in H&P:
  - ✓ Tobacco use for lung patients
  - ✓ Family hx/ Hormonal status for breast patients
  - ✓ Potency status for prostate patients
  - ✓ An Appropriate Exam for the Disease/Site

ACR Practice Guideline for Radiation Oncology

- Medical Decision Making
- ✓ Staging
- ✓ Plan of care (other tests needed, combined modality (chemotherapy)

ACR Practice Guideline for Radiation Oncology

- Simulation
- ✓ All set ups should be documented by properly labeled photographs/diagrams and when appropriate, by standard images or DRRs.
- ✓ Suitable Immobilization

ACR Standard for 3-D External Beam Radiation Planning and Conformal Therapy/IMRT

- Radiation Oncologist responsibilities include:
- ✓ Contour critical normal structures not clearly discernible on treatment planning images
- ✓ Review and approve all critical structures
- ✓ Prescribe target dose and limitations on critical normal structures
- ✓ Signed and dated

ACR Practice Guideline for Radiation Oncology

- On treatment visits
  - Done Weekly
  - Evaluation includes treatment chart review, plan of care review, document any changes in plan of care, pertinent examination, review of pertinent lab/imaging studies, tumor response as indicated
    - If visits are performed by a physician extender, the ACR recommends that radiation oncologist participate in the OTV.

ACR Practice Guideline for Radiation Oncology

- Portal Verification Images
- When portal images can be made, they should be taken every 5-10 treatments and for any new fields. At least weekly for IMRT
- Signed and Dated

ACR Practice Guideline for Radiation Oncology

- Completion Summary Should Include:
- ✓ Total dose/ doses delivered to target/tumor volumes and other key organs/elapsed days
- ✓ Relevant assessment of tolerance/progress
- ✓ Subsequent care plans
- ✓ Timely

ACR Practice Guideline for Radiation Oncology

- Follow Up
- ✓ If the patient is not followed by the radiation oncologist after the initial follow up visits, we want to see a follow up plan and some notes from referring MDs/clinic to ensure continuity of care

ACR Practice Guideline for Radiation Oncology Continuing Quality Improvement

- MD/Physics Peer Review
- Physics Quality Improvement Program
- Chart Rounds Weekly
- Morbidity and Mortality
- Tumor Board Participation
- Focus Studies
- Outcome Studies
- Patient Satisfaction Studies

ACR-ASTRO ROPA

- What Can You Do?
  - Become a surveyor!
    - Readies you facility for accreditation
    - Will Help You Promote the Culture of Safety in Your Facility and Beyond

ACR-ASTRO Radiation Oncology Practice Accreditation Program

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ACR-ASTRO Radiation Oncology Practice Accreditation Committee

- Patrick Conway, M.D., FACR, ACR co-chair
- Prabhakar Tripuraneni, M.D., FACR, FASTRO, ASTRO co-chair
- Tariq Mian, Ph.D., FACR, Physics sub-committee chair
- ACR Staff: Brian Monzon
- ASTRO Staff: Nadine Eads

35

ACR-ASTRO Radiation Oncology Practice Accreditation Program

- Web based program launched in January 2011
- Update of program documentation – application, interview and data collection form, surveyor report and summary are all captured electronically through a secure web site https://ropa.acr.org
- Database development for personnel, processes, patterns, quality improvement

ACR-ASTRO ROPA Application Process

- Visit the ACR web site and complete the on line application:

  Once we have received your application and survey fee, we will look for a survey team for one of the dates you have suggested
- You will be notified by e mail of the survey date (s) and surveyor team members

Application Part I and II

- Part I gathers information about your facility…staffing, equipment, physical location
- Part II includes specific questions about the practice such as your P&P, adherence to guidelines/standards

ACR-ASTRO ROPA Process

To make the process as objective as possible, recommendations are based on data from ACR/ASTRO Guidelines/Standards, ASTRO White Papers, AAPM TG Reports, ACR Appropriateness Criteria

ACR-ASTRO ROPA Process - Medical Physicist Review on Site

Treatment Plan/MU Calculation Procedures

- Double check of treatment plans/MU calculations for accuracy prior to patient treatment whenever possible but before the third fraction
- For 5 or fewer fractions, the calculation must be checked prior to delivery of the first treatment

Medical Physicist Review on Site

IMRT Documentation

- Documentation includes: delivered doses to volumes of target and non-target tissues, in the form of dose volume histograms and representative cross sectional isodose treatment plans
- Inverse planning performed

Medical Physicist Review on Site

IMRT Documentation

- Prior to the start of treatment, accuracy of dose delivery documented by irradiating a phantom containing a calibrated dosimetry system to verify that the dose delivered is the dose planned

Medical Physicist Review on Site

Physics Chart Check Protocol:

- **Documentation of weekly physics chart check**
- **Documentation that physicist checked the chart within 1 week from end of treatment**

Medical Physicist Review on Site

Physics Quality Management (QM) Program:

This involves equipment and procedures used in radiation treatment to ensure a consistent and safe fulfillment of the dose prescription. This includes:

- Procedures and protocols to periodically monitor the baseline performance characteristics of equipment
- Calibration procedures/constancy checks for instruments which are used for calibration of equipment and for patient dosimetry to ensure traceability to accreditation calibration facilities

Medical Physicist Review on Site

- Independent calibration/output check of each beam of treatment machine
- Records of treatment planning computer systems acceptance/commissioning and periodic tests
- Procedures for checking integrity of mechanical and electrical patient care devices

Medical Physicist Review on Site

- Brachytherapy records including written directive, treatment parameters and safety survey of the patient and the area
- Radiation protection program
- Physicist peer review program

Frequent Recommendations/Non-Compliance with Guidelines and Standards

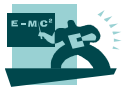
Since the accreditation program is based on ACR-ASTRO guidelines and standards, final reports will contain recommendations that link to a guideline or standard. We will take a look at some frequently seen clinical and physics recommendations. Not all of these are "deal breakers", in other words, leading to denial of accreditation.

Recommendations Related to Physics Issues

ACR Practice Guideline for Radiation Oncology

Qualified Medical Physicist:

- **This is generally made if the medical physicist is not certified by an appropriate board**



ACR-ASTRO Practice Guideline for Intensity Modulated Radiation Therapy (IMRT)

Medical Physicist:

- **Prior to the start of treatment, accuracy of dose delivery should be documented by irradiating a phantom containing a calibrated dosimetry system to verify that the dose delivered is the dose planned.**

ACR Technical Standard for the Performance of Radiation Oncology Physics for External Beam Therapy

- **At completion of treatment, the medical physicist shall review the entire chart to affirm the fulfillment of initial/revised prescribed dose. This review must be performed within 1 week of EOT and documented in the treatment record**

ACR Technical Standard for the Performance of Radiation Oncology Physics for External Beam Therapy

- Treatment planning computer systems shall undergo rigorous acceptance tests and commissioning to ensure that the calculated output satisfactorily agrees with measured beam data for a series of test cases and to ensure that the hardware and software were installed properly

ACR Technical Standard for 3-D External Beam Radiation Planning and Conformal Therapy

Medical Physicist Responsibilities include:

- QA program for treatment planning system
- Review plans for accuracy/precision
- Acceptance testing/commissioning and implementation of treatment planning system
- Follow recommendations of TG 53

ACR Technical Standard for the Performance of Radiation Oncology Physics for External Beam Therapy

The medical physicist is responsible for documenting the following:

- Quality management program for radiation therapy equipment, simulators, treatment planning systems, and monitor unit calculation algorithms

ACR Technical Standard for the Performance of Radiation Oncology Physics for External Beam Therapy

- **Electrical, mechanical and radiation safety**
- **A documented program shall be implemented to assess potential safety hazards and to check the integrity of mechanical and electrical patient care devices.**

ACR Technical Standard for the Performance of Radiation Oncology Physics for External Beam Therapy

- **The medical physicist should engage in a formalized peer review on a regular basis.**
- **Physicists engaged in solo practice (being the only qualified medical physicist at a facility, or serving as consultant providing the only medical physicist service to the facility) should follow published AAPM recommendations, including peer review recommendations. (TG 103)**

Most Common Guidelines and Standards Referenced

- ACR Practice Guideline for Communication: Radiation Oncology
- ACR-ASTRO Practice Guideline for IMRT
- ACR Practice Guideline for Radiation Oncology
- ACR Technical Standard for the Performance of Radiation Oncology Physics for External Beam Therapy
- ACR-ASTRO Practice Guideline for Performance of HDR Brachytherapy Treatment Planning

Common Reasons for Deferral (Physics Issues)

- No physicist chart check at end of treatment
- No documented IMRT QA
- No documented TPS QA, including:
  - ✓ Evidence of a program of periodic confirmation of TP system constancy

Common Reasons for Deferral (Physics Issues)

- Lack of second check of calculations
- Lack of physics coverage

Final Report

- The final report is currently issued approximately 4 weeks following the survey.
- The final report will contain:
  - Accreditation Decision PASS DEFER DENY
  - Staffing/Resources Table
  - Recommendations for improvement based on Guidelines/Standards and AAPM reports
  - Link to Media Kit for marketing accreditation

Staffing/Resources Table

STRATA are defined as:

Academic/CCC: Comprehensive Cancer Center or main teaching hospital of a medical school

H1 Hospital based; >600 patients

H2 Hospital based; 201-599 patients

H3 Hospital based; <200 patients

F1 Freestanding; >600 patients

F2 Freestanding; 201-599 patients

F3 Freestanding; <200 patients

Patients by Facility

	ALL	Academic/CCC	H1	H2	H3	F1	F2	F3
New pts/RO	206	212	271	216	127	277	213	160
New pts/MP	269	195	293	277	139	414	307	277
New pts / Dosimetrist	268	321	399	273	195	334	246	216
New pts/Therapist	71	74	100	74	45	83	73	61
Therapist/Machine	3.2	4.1	3.5	3.2	3.1	3.6	3.3	2.4
New pts/Machine	226	299	317	232	135	293	231	141

62

Future Approaches Under Consideration

- Recruiting of new surveyors / Inactive surveyors
- Creating surveyor agreement / Updating surveyor application
- Surveyor training manual
- Surveyor training evaluation
- Surveyor matching

Future Approaches Under Consideration

- Survey questions updating / new questions
- Link survey questions to practice standards
- More objective scoring of survey data
- Collection of focus/outcome studies from accredited sites (posted on Web for other sites to use as a template)
- Additional data requirements (i.e. pain scores)

Future?

Accreditation has moved from

"Backstage/In the Shadows" status to "Upfront",

because of Safety concerns in the

"Eyes of the Public"

Mandatory ????

ACR-ASTRO Radiation Oncology Practice Accreditation Program

- **ACR recommended <u>mandatory</u> accreditation of all facilities to Legislators**
- **ASTRO <u>strongly recommended</u> accreditation for all facilities**

Advantages to Becoming a Surveyor

- Stay current with treatment practices/guidelines/standards/AAPM reports
- Chance to give back to the profession
- Opportunity to learn from the surveyed institution
- Meet fellow physician and physicist surveyors from practices around the country
- Apply to become a surveyor by completing the on-line application