ACR-ASTRO Radiation Oncology Practice Accreditation Program

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Some statistics about the program

Established in 1987

Followed “PATTERNS OF CARE”

( SIMON KRAMER)

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.
Radiation Oncology Accreditation Program Growth 2005 - 2010

Number of Applications has **DOUBLED** in 5 years!
Accredited Facilities 227
Facilities Under Review 155

“Under Review” means:

✓ Deferred/submitting corrective action
✓ Site visit has not yet been completed
✓ Final report has not been written yet
Accreditation Program Goals

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

Surveyors must be:

✓ ABR Certified

✓ ACR or ASTRO Member

✓ In Active Practice in Radiation Oncology
Benefits of Accreditation

• Offers specific recommendations for improvement from experienced, practicing radiation oncologists and practicing physicists

• Peer review forms can be used by the facility as part of their continuing quality improvement activities

• Survey report to support requests for increased staffing and equipment improvements/replacements
Why is Accreditation Important?

• Evidence of achievement in the areas of quality and patient safety
• Education and learning process for staff
• Demonstrates commitment on the part of the facility to meeting the highest standards in the field of radiation oncology
• Enhances credibility in the eyes of the public
• Broader recognition by peers in the field
ACR/ASTRO Radiation Oncology Practice Accreditation Program

New Features

The new program is web-based:

- Alpha, Beta testing – 2010
- Launching in Q3 2010/Q4 2011

Update of program documentation – application, interview and data collection form, surveyor report and summary are all captured electronically (no more paper)

Database development for personnel, processes, patterns, quality improvement.
What’s new in ACR-ASTRO accreditation?

3 Categories:

Accredit
Deferral
Denial of Accreditation
ACR-ASTRO Accreditation

Cycle is 3 years

There are always recommendations for improvement but no written response needed
Deferral of Accreditation

- 90 days to submit corrective action plan (CAP)
- Following CAP approval by committee, facility will perform a self audit and submit results no later than 6 months after receipt of response to CAP
Denial of Accreditation

- 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
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.
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 person team
Multi Site Survey Criteria

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

Single Site $9500.00

Each additional site $3000.00

Includes surveyor travel
New Web Based Program

- Implemented January 2011
- Paper applications no longer accepted
- Data is collected through a secure web site

https://ropa.acr.org
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
On site process

• The site visit is *always* conducted by a radiation oncologist and medical physicist

• First activity will be an interview with key personnel (Chief MD, chief physicist, chief therapist, dosimetrist, RN, etc.) followed by a tour of facility
On site process

• After completion of tour, surveyors will begin chart check. The facility must provide one or 2 staff to help with navigating through charts/EMR, etc.

• Facilities must provide Internet access
On Site Process

- Physicist interview (time to be determined on site)
- Review of QA manuals, P&P, throughout day
- “Exit Interview” prior to departure with same personnel from A.M. interview. The team will not give their recommendations but will use this opportunity to clarify any issues, etc.
Accreditation Standards

• Appropriateness Criteria (ACR)
• NCCN Guidelines
• Practice Guidelines (ACR, ASTRO)
• Technical Standards (ACR)
• Task Group Reports Recommendations (AAPM)
Practice Guidelines - Radiation Oncology

1. 3D External Beam Radiation Planning and Conformal Therapy
2. Radiation Oncology
3. Intensity-Modulated Radiation Therapy (IMRT)
4. Image-Guided Radiation Therapy (IGRT)
Practice Guidelines - Radiation Oncology

5. Performance of High-Dose-Rate Brachytherapy

6. Performance of Low-Dose-Rate Brachytherapy

7. Transperineal Permanent Brachytherapy of Prostate Cancer
Practice Guidelines Radiation Oncology

8. Performance of Stereotactic Body Radiation Therapy

9. Performance of Stereotactic Radiosurgery

10. Performance of Total Body Irradiation

11. Communication: Radiation Oncology

12. Informed Consent – Radiation Oncology
Technical Standards – Medical Physics

1. Performance of Radiation Oncology Physics for External Beam Therapy
2. Performance Monitoring of Image-Guided External Beam Radiation Therapy (IGRT)
3. Performance of High-Dose-Rate Brachytherapy Physics
4. Performance of Low-Dose-Rate Brachytherapy Physics
AAPM Task Group Recommendations

- AAPM Task Group 40
- AAPM Task Group 142
- AAPM Task Group 51
- AAPM Task Group 53
- AAPM Task Group 103
Medical Physicist Review

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

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

• Inverse planning performed
Medical Physicist Review

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 Physics Review

Physics Chart Check Protocol

• Documentation of weekly physics chart check

• Documentation that physicist checked the chart at the end of treatment within 1 week of end of treatment
Medical Physicist Review

- Procedures for instrument calibration/periodic instrument constancy checks
- Procedures for checking integrity of mechanical and electrical patient care devices
- Procedures to verify manufacturer’s specifications and establish performance values for RT equipment
- Calculations related to patient dosimetry and/or physics measurements (diodes, TLD, etc.)
Medical Physicist Review

- Radiation protection program
- QM program for the equipment

This includes protocols and procedures for ensuring a consistent and safe fulfillment of the dose prescription
Frequent Recommendations/Non-compliance with ACR 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 physicist issues
X Qualified Medical Physicist:

✓ This is generally made if the medical physicist is not ABR certified
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.
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.
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 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. This program should include, periodic inspections of patient dose-monitoring devices, treatment machines and simulators (including the patient support assembly), and attachments to these machines such as portal imaging devices, head holder, compensator, and wedges (EPID systems QA)
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)
Common Reasons for Deferral (physics)

No physicist chart check at end of treatment

No documented IMRT QA

No documented TPS QA, including:

- Commissioning report for TPS system
- Dose prediction/verifications records
- Evidence of a program of periodic confirmation of TP system constancy
- Log of hardware/software data changes and re-commission checks
Common reasons for deferral (physics)

- Lack of second check of calculations
- Lack of physics coverage
Top 10 Health Technology Hazards For 2011

1. Radiation Overdose and Other Errors During Radiation Therapy

2...

3...

4. High Radiation Dose of CT Scans

5. Data Loss, System Incompatibilities, and Other Health IT Complications

Report by ECRI Institute – Patient Safety Organization, Health Devices, 39: 11, 386-398, November 2010
Advantages to becoming a surveyor

- Stay current on Community practices
- Opportunity to enhance standards
- Chance to give back
- Opportunity to learn from the surveyed institution
- For Clinicians a chance to meet Physicists
- For Physicists a chance to meet Clinicians (Nobody promised life would be fair)
MD Components

- 1 H@P
- Medical Decision Making
- Simulation
- Planning
- On Treatment Visits
- Portal Imaging
- Completion Summary
- Follow Up
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
Practice Guideline for Radiation Oncology

- Medical Decision Making
- Staging
- Plan of care (other tests needed, combined modality (chemotherapy))
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
Practice Guideline for 3-D External Beam Radiation Planning and Conformal Therapy

- 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
Practice Guideline for Radiation Oncology

- On treatment visits
- Should include Vitals/Current Dose/Any Tumor Response/Side Effects/Non Medical Issues

✓ If visits are performed by the Nurse Practitioner, the ACR recommends that the physician sign and date the note as evidence of his/her evaluation of the patient.
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.
- Signed and Dated
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
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.
CQI (DOCUMENTED)

- MD Peer Review
- Chart Rounds Weekly
- Tumor Boards
- M@M Studies Monthly
- Focus Studies 2 per Year
- Outcome Studies 1 per Year (ACOS)
Peer Review

- Minimum of 5 Charts/month
- Difficult for Solo MD’s (Telesynergy?)
- The recommended frequency is twice yearly. This can be done during locum coverage or through a contract with a local, perhaps, academic facility. Documentation.
Chart Rounds

- Weekly
- New Patient/Field Changes:
  - Review Chart/Planning/Ports.
- On Treatment: Review Chart/Ports
- M@M
- Psycho/Social Needs
M&M Conferences Monthly-Quarterly

Review of any chart in which an incident report is filed or in which there is a report of an accident or injury to a patient.

Review of unplanned interruptions during treatment; unusual or severe, early or late complications of treatment; and unexpected side effects or deaths.
Focus Studies

Focus studies are basically quality improvement projects. For example, 20% of patients are missing their weekly on treatment visit. A focus study would identify this problem, take action to correct it, then measure the effectiveness of the action taken. 6 months later, for example, only 5% have missed their on treatment visit.
Outcome Studies

✓ Review of outcome studies from the cancer committee, tumor registry, or any other section, department, or committee of an associated hospital that includes radiation oncology patients.
Common Clinical Reasons for Deferral

- Portal imaging not done according to guideline
- Lack of up to date equipment to provide treatment that meets today’s standards (no MLC, Record and Verify, etc)
- Patient care issues (doses too low by today’s standards, tumor volume missed, etc)
- Leadership/management issues
Common Clinical Reasons for Deferral

- Radiation oncologist coverage is inadequate
- No physician peer review
- Lack of adequate prescriptions, such as not signed, site/volume not stated, number of fractions, etc.
- Combination of issues such as lack of QA activities (no peer review, no M&M, no outcome or focus studies)
The final report is currently issued approximately 10-12 weeks following the survey. The goal for the new web based program is 4-6 weeks.

The final report will contain:

- Accreditation Decision PASS, DEFER, DENY
- Staffing/Resources Table
- Recommendations for improvement based on Guidelines/Standards and AAPM reports
R-O PEER™

- R-O PEER is a program that allows radiation oncologists to fulfill Part Four: Assessment of Performance in Practice for the Maintenance of Certification (MOC) program for the American Board of Radiology (ABR) through the Radiation Oncology Practice Accreditation Program.
R O PEER™

Physicians applying for R O PEER™ can submit their application with the facility’s application for accreditation and will receive a separate report after accreditation is granted.

*Satisfies ABR requirement for a society based project for MOC.*
Future Approaches Under Consideration

- More objective surveys through web based process
- 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
- Addition of more surveyors!!!
ACR/ASTRO Radiation Oncology Practice Accreditation Program

- ACR recommended **mandatory** accreditation of all facilities to Legislators

- ASTRO **strongly recommended** accreditation for all facilities
Accreditation has moved from “Backstage/In the Shadows” status to “Upfront”, because of Safety concerns in the “Eyes of the Public”.

Becomes Mandatory

ACR/ASRO + ACRO + ET. AL.

Do the Math!

Current: Every 3 years 300 ACR/ASTRO + 300 ACRO = 600 or 200/year. e.g. 17 / month.

Mandatory: 3,000 = 1000/year. e.g. 85 / month.
ACR/ASTRO Accreditation

- Good Housekeeping
Questions?