Radiation Oncology Accreditation Program Requirements

Introduction

The radiation oncology accreditation program provides radiation oncologists with third party, impartial peer review and evaluation of patient care. The facility's personnel, equipment, treatment planning and treatment records, as well as its quality control measures are assessed and compared to the ACR accredited facilities database, the ACR Practice Guidelines and Technical Standards for Radiation Oncology, and guidelines such as the American Association of Physicists in Medicine (AAPM) reports.

The Committee for Radiation Oncology Practice Accreditation of the ACR Commission on Quality and Safety directs the program. The accreditation process, designed to promote quality and be educational in nature, includes an on-site survey performed by board certified radiation oncologists and board certified medical physicists.

Application for Accreditation

Each facility applying for accreditation must complete an application. The application consists of submission of facility treatment and equipment information, staffing levels and qualifications, patient census data, and physics Quality Assurance/Quality Control documentation as well as the self-assessment data completed by the physicians in the practice and response to any identified deficiencies in the compliance with ACR Practice Guidelines and Technical Standards checklist.

When all components of the application are complete, the on-site survey will be scheduled. If deficiencies are noted or missing items identified, the facility will be contacted so that any corrective action plan/missing items can be submitted before the site survey is scheduled.

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Case Review

When your survey date is confirmed, you will be asked to submit cases of ***definitively treated*** patients who have ***recently completed treatment*** at your facility and have had at least ***one follow up visit***. You will be provided the appropriate census data sheets via e-mail when you receive confirmation of the survey dates .During the on-site survey, 10 cases will be reviewed. ID numbers, not patient names, must be submitted for 10 breast, 10 prostate, 10 head and neck, 10 lung and 10 "generic" disease sites (colo-rectal, seminoma, brain, Hodgkin's disease, cervix, etc) on the census data sheets provided. If you do not have 10 cases from a disease site (such as head and neck), you may submit additional generic cases. To ensure that all physicians in the practice are reviewed, physician initials must be included with patient ID numbers. A a minimum of 2 cases per physician will be reviewed. In addition, cases selected should include all treatment modalities offered at your facilities, such as IMRT, prostate seed implant, stereotactic radiosurgery, etc. For all cases, patient records including simulation information, DRRs, port films (hard copies if appropriate), and CT planning documentation must be available for the surveyors. If your facility has electronic images and/or medical records, you will need to provide electronic access to this information.

Preliminary Self- Assessment
The sample data collection form for preliminary self assessment is available on the web site as part of the application documents. Ten cases should be reviewed for the self assessment activity and should be representative of your patient mix, for example, breast, prostate, lung and should include treatment modalities such as IMRT, prostate seed implant, stereotactic radiosurgery, etc. A radiation oncologist who ***did not*** provide the patient's care should complete the self-assessment sheets. These data collection forms must be completed prior to your site visit and be available during the survey so that the ACR site visitors can verify any needed information. **Do not send these with your application.** This self-assessment activity is an excellent tool for physicians to use as part of their internal peer review activities and the facility is encouraged to use these forms as part of their Continuous Quality Improvement (CQI) program.

On-Site Survey

The on-site survey is conducted over one business day (for a single facility). Multi-site surveys will require more days, based on the number of sites, geographic locations and practice patterns. During the visit, the surveyors verify the information submitted in the facility's application; tour the facility; interview the Chief of Radiation Oncology, department physicist, department administrator, and other key personnel; and collect information about the facility's quality assessment and improvement program.

The surveyors also collect medical and dosimetry/physics data from the cases selected for review. Each chart is assessed by answering the questions on the data collection forms developed by the Committee for Radiation Oncology Practice Accreditation. The data are used to evaluate information contained in the patient chart, including such items as consent forms, pathology reports, history and physical, physician management during treatment and follow up, completeness of prescription, simulation, treatment planning and simulation and dosimetry activities. The facility's compliance with ACR Practice Guidelines and Technical Standards is also assessed and any deficiencies identified in the pre-survey assessment will be reviewed.

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The Radiation Oncology Physicist is responsible for the design and implementation of the physics quality management program. A comprehensive review of the facility's physics program will be included as part of the application process and verified during the on-site survey. The following areas will require documentation submitted with the application:

- Documentation of compliance with AAPM TG-40, TG-21 or TG-51 (required for accreditation)
- Documentation of treatment planning system quality assurance program TG- 53
- Independent Verification of Output of each beam

In addition, during the on-site survey, the qualified medical physicist's documentation of the following will be reviewed:

- Procedures for instrument calibration and periodic instrument constancy checks
- Procedures to verify the manufacturer's specifications and to establish baseline performance values for radiation therapy equipment
- Quality management program for radiation therapy equipment, simulators, treatment planning systems, and monitor unit calculation algorithms
- Monitor units calculation procedures and protocols
- Physics chart check protocol for reviewing treatment delivery
- Procedures for checking the integrity of mechanical and electrical patient care devices
- Radiation protection program as it pertains to radiation oncology
- Calculations related to patient dosimetry and/or physics measurements when such needs arise or per clinician's requests.

Random On-Site Surveys

In order to verify that accredited facilities maintain consistent quality during the three–year accreditation period, on-site surveys may also be performed at any time during the accreditation period. These surveys provide an excellent opportunity for a positive educational exchange with experts in the field, as well as providing validation of continued compliance with ACR guidelines and standards. These surveys will be conducted by radiation oncologists and medical physicists from the Radiation Oncology Accreditation Program. Any facility chosen for a random on-site survey will be notified in advance. There is no additional cost to the facility for the random survey.

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Multiple Sites

A practice that has multiple sites may be eligible for a single survey, with a limited case review from each additional site. The criteria to determine eligibility include but are not limited to:

- The physician group has a medical director
- The physicist group has a single director
- Physicians' peer review includes all the practice sites
- All practice sites utilize uniform treatment methods
- All practice sites have uniform chart organization and forms

If the ACR determines that the practice does not meet the criteria, a full survey will be required for each site.

Personnel Qualifications

Radiation Oncologist

- Satisfactory completion of radiation oncology residency in an American Council of Graduate Medical Education (ACGME) approved program,

OR

- Certification in Radiology by the American Board of Radiology (ABR) of a physician who confines his/her practice to radiation oncology or certification in Radiation Oncology or Therapeutic Radiology by the ABR, the American Osteopathic Board of Radiology, or the Royal College of Physicians and Surgeons of Canada may be considered proof of adequate physician qualifications.

Qualified Medical Physicist

The ACR recommends that the individual be certified in the appropriate sub fields by the American Board of Radiology. The appropriate sub fields of medical physics for Radiation Oncology are Therapeutic Radiological Physics and Radiological Physics.

Radiation Therapists and Simulation Staff

Radiation therapists and simulation staff must fulfill state licensing requirements and should have American Registry of Radiologic Technology (ARRT) certification in radiation therapy.

Dosimetrist

Certification by the Medical Dosimetrist Certification Board is recommended.

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Staffing Levels*

In the final report, the facility's staffing levels for radiation oncologists, physicists, radiation therapists and dosimetrists are compared to the ACR accredited facility averages and averages for the facility's stratum as defined in the following table. The table allows facilities to identify personnel and equipment utilization issues. Staffing recommendations may be part of the final report, however, variations from these levels generally do not result in withholding of accreditation unless inadequate staffing levels result in non-compliance with ACR Practice Guidelines and Technical Standards and/or compromise patient safety.

The strata are defined as:

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

H1 Hospital based; 600 or more patients

H2 Hospital based; 201-599 patients

H3 Hospital based; 200 or fewer patients

F1 Freestanding; 600 or more patients

F2 Freestanding; 201-599 patients

F3 Freestanding; 200 or fewer patients

	ALL ACR ACCREDITED FACILITIES	ACADEMIC / CCC	H1	H2	H3	F1	F2	F3
New patients/ radiation oncologist	212	213	242	215	171	268	237	133
New patients/ Physicist	302	217	290	285	183	373	383	307
New patients/ FTE dosimetrist	276	266	319	287	243	268	281	205
New patients/ FTE therapist	76	74	92	74	65	51	85	65
FTE therapist/ Rx machine	3.1	4.2	3.3	3.3	2.8	4.1	3.1	2.2
New patients/ Rx machines	227	288	297	231	151	318	245	123

**While it may be instructive to compare staffing data to the facility's stratum and to the national average for accredited facilities, note that this data is incomplete in some important aspects. The data does not account for the staff's other duties (e.g. simulation for therapists) nor is the data scaled for complexity or the proportion of different pathologies treated in any given clinic. Each facility should, when comparing their staffing data to stratum and national averages, consider their patient population, range and complexity of services provided, and any staff duties outside of the core duties assumed in this data table.*

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Continuous Quality Improvement (CQI)

The Medical Director of Radiation Oncology will be responsible for the institution and ongoing supervision of the continuous quality improvement program. Elements of the program include:

- Chart review is required and should include cases in which there is a variation from prescription of greater than 10% of intended total dose, new modalities or techniques, and charts in which an incident report is filed
- Morbidity and mortality review
- Review of internal outcome studies which include radiation oncology patients
- Individual physician peer review
- Patient satisfaction surveys
- New patient conferences
- Port film/image review
- Chart rounds

Frequent Deficiencies

The following are recommendations that are ***frequently*** included in the final report and must be addressed before a facility will be granted accreditation. Please note that other serious deficiencies, ***not*** seen frequently and therefore not listed, may also require corrective action and documentation prior to granting of accreditation.

- The treatment prescriptions should include: volume (site) to be treated, description of ports (i.e., AP, PA, lateral, etc.), radiation modality, dose per fraction, number of fractions per day, number of fractions per week, total number of fractions, total tumor dose and prescription point or isodose.

- Port verification films/images should be taken at the beginning of therapy, with field changes, and at least every other 5-10 treatments. All images should be labeled with the patient's name, date taken, field size, and direction of the beam as well as the reviewing radiation oncologist's initial/signature and date. IMRT - confirmation of patient positioning should be performed initially and then periodically, at least weekly, throughout the course of the patient's treatment.

- At the completion of treatment, the qualified medical physicist shall review the entire chart to affirm the fulfillment of the initial and/or revised prescription dose. The review should be documented by the physicist, initialed/signed and dated **no later than one week** after the end of treatment.

- Each patient chart should contain a documented, comprehensive history and physical examination performed by the radiation oncologist, including a comprehensive history of the present illness, past medical history, review of systems, review of imaging studies and laboratory data, histopathology diagnosis and recommendations for treatment.

- The department should have a documented, formal treatment planning system quality assurance plan, including the periodic confirmation of the treatment planning system consistency.

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- Patients should be evaluated by the radiation oncologist at least weekly. Weekly exams should be thoroughly documented in the patient chart.

- At the completion of treatment, a follow-up plan should be documented in the patient chart, and patients should be seen by the radiation oncologist at regular, on-going intervals. Follow-up notes should be documented in the patient record.

- Complete documentation should be included in the patient record when brachytherapy is performed. Written directives documented for each procedure should include the treatment site, isotope, number of sources and the planned dose to designated points. After brachytherapy is completed, a written summary of treatment delivery should include: total dose of brachytherapy and external beam therapy, time of source insertion and removal and documentation of a radiation safety survey of the patient and room.

- Physician peer review activities should be formalized and documented.

- Formal Quality Assurance & Improvement program should include: chart rounds, new patient rounds, and morbidity and mortality conferences.

Final Report

The Committee issues a final report after the on-site survey. The report is generally sent within 8-12 following the on-site survey. The report is based on the findings of the surveyors, as well as information provided in the initial application and verified by the surveyors. The accreditation report includes:

- Comparison of facility/staffing data with ACR accredited facilities data.
- Evaluation of facility's compliance with ACR Practice Guidelines and Technical Standards from application information and review by surveyors.
- Surveyor comments on individual case reviews.
- Specific recommendations for improvement.

The report is issued to the radiation oncologist who requested the survey. The term of accreditation is three years. Facilities that are not granted accreditation will receive specific recommendations. When a satisfactory response to these recommendations is received and reviewed by the committee, the facility may be granted a 3-year accreditation.

Marketing Your Accreditation

Once accreditation has been achieved, the ACR will send the facility a marketing package to assist in promoting this success within the community. In addition, all sites fully accredited (and those under review) will be listed by program and state on the ACR Web site at www.acr.org. The marketing tools that are included in the package include:

- Camera-ready ad
- Press release
- Certificate suitable for framing
- Certification mark provided in decal and electronic format

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Application for Renewal

The application process for sites applying for renewal is essentially the same as for new sites, however, a facility's previous recommendations will be carefully reviewed to ensure that recommendations for improvement have been implemented. In order to maintain accreditation, it is recommended that facilities begin the application process nine months prior to the expiration date of their accreditation.

Appeal Mechanism

An appeal process is available to a radiation oncology facility that disagrees with the accreditation report. To appeal, the chief of radiation oncology submits a written request to the Chairman of the Committee on Radiation Oncology Practice Accreditation within thirty days of receipt of the accreditation report.

Survey Fees

Survey fee for the main facility is $9,000.00; $2,500.00 for each additional site. Fees are non-refundable and subject to change without notice. Checks should be made payable to The American College of Radiology.

Practice Guidelines and Technical Standards

We highly recommend that you become familiar with the ACR Practice Guidelines and Technical Standards. These serve as the foundation for each of our accreditation programs and may be accessed by both ACR members and non-members through our Web site at www.acr.org.

R-O PEER™

R-O PEER offers radiation oncologists the opportunity to fulfill Part IV, Evaluation of Performance in Practice for Maintenance of Certification (MOC), for the American Board of Radiology (ABR) through the Radiation Oncology Practice Accreditation Program. R-O PEER™, the ACR's Practice Quality Improvement (PQI) program will be offered through 2 pathways, either as part of the Radiation Oncology Accreditation Program, or through an independent review of cases by the Accreditation Program's committee members or senior surveyors. Following the survey or review, a final report will be issued to each participating radiation oncologist. If any corrective action measures are identified, the final report will request additional documentation that demonstrates that these have been appropriately addressed. When this documentation is submitted and reviewed, a certificate of satisfactory completion of the PQI project will be issued.

If your facility is applying for accreditation, the information and application are included with the documents for radiation oncology accreditation. You may download these and submit with your facility's accreditation application documents. If you are applying for an independent review (outside of the accreditation program), you may download the application at www.acr.org.

For Additional Information

Contact the ACR Radiation Oncology Practice Accreditation Program office in Reston, Virginia at 800-770-0145 or rad-onc-accred@acr.org.

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APPENDIX A

The following list of references is by no means complete, but it may be used as a starting point to assist you with your application and survey process:

American College of Radiology Practice Guidelines and Technical Standards , Reston, VA: 2008.

American Association of Physicists in Medicine, (AAPM). Protocol for the determination of absorbed dose from high-energy photon and electron beams. Report of AAPM Radiation Therapy Task Group 21, 1983.

American Association of Physicists in Medicine, (AAPM). Comprehensive QA for Radiation Oncology: Report of AAPM Radiation Therapy Committee Task Group 40, 1994.

American Association of Physicists in Medicine, (AAPM). Protocol for clinical reference dosimetry of high-energy photon and electron beams. Report of AAPM Radiation Therapy Task Group 51, 1999.

American Association of Physicists in Medicine, (AAPM). Quality Assurance for Clinical Radiotherapy Treatment Planning Report of AAPM Radiation Therapy Committee Task Group 53, 1998.

American Association of Physicists in Medicine, (AAPM). Protocol for Clinical Dosimetry of High-Energy Photon and Electron Beams. Report of AAPM Radiation Therapy Committee Task Group 51, 1999.

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