The American College of Radiology, with more than 30,000 members, is the principal organization of radiologists, radiation oncologists, and clinical medical physicists in the United States. The College is a nonprofit professional society whose primary purposes are to advance the science of radiology, improve radiologic services to the patient, study the socioeconomic aspects of the practice of radiology, and encourage continuing education for radiologists, radiation oncologists, medical physicists, and persons practicing in allied professional fields.

The American College of Radiology will periodically define new practice parameters and technical standards for radiologic practice to help advance the science of radiology and to improve the quality of service to patients throughout the United States. Existing practice parameters and technical standards will be reviewed for revision or renewal, as appropriate, on their fifth anniversary or sooner, if indicated.

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ACR–ASTRO PRACTICE PARAMETER FOR COMMUNICATION: RADIATION ONCOLOGY

PREAMBLE

This document is an educational tool designed to assist practitioners in providing appropriate radiation oncology care for patients. Practice Parameters and Technical Standards are not inflexible rules or requirements of practice and are not intended, nor should they be used, to establish a legal standard of care. For these reasons and those set forth below, the American College of Radiology and our collaborating medical specialty societies caution against the use of these documents in litigation in which the clinical decisions of a practitioner are called into question.

The ultimate judgment regarding the propriety of any specific procedure or course of action must be made by the practitioner in light of all the circumstances presented. Thus, an approach that differs from the guidance in this document, standing alone, does not necessarily imply that the approach was below the standard of care. To the contrary, a conscientious practitioner may responsibly adopt a course of action different from that set forth in this document when, in the reasonable judgment of the practitioner, such course of action is indicated by the condition of the patient, limitations of available resources, or advances in knowledge or technology subsequent to publication of this document. However, a practitioner who employs an approach substantially different from the guidance in this document is advised to document in the patient record information sufficient to explain the approach taken.

The practice of medicine involves not only the science, but also the art of dealing with the prevention, diagnosis, alleviation, and treatment of disease. The variety and complexity of human conditions make it impossible to always reach the most appropriate diagnosis or to predict with certainty a particular response to treatment. Therefore, it should be recognized that adherence to the guidance in this document will not assure an accurate diagnosis or a successful outcome. All that should be expected is that the practitioner will follow a reasonable course of action based on current knowledge, available resources, and the needs of the patient to deliver effective and safe medical care. The sole purpose of this document is to assist practitioners in achieving this objective.

1. Iowa Medical Society and Iowa Society of Anesthesiologists v. Iowa Board of Nursing, ___ N.W.2d ___ (Iowa 2013) Iowa Supreme Court refuses to find that the ACR Technical Standard for Management of the Use of Radiation in Fluoroscopic Procedures (Revised 2008) sets a national standard for who may perform fluoroscopic procedures in light of the standard’s stated purpose that ACR standards are educational tools and not intended to establish a legal standard of care. See also, Stanley v. McCarver, 63 P.3d 1076 (Ariz. App. 2003) where in a concurring opinion the Court stated that “published standards or guidelines of specialty medical organizations are useful in determining the duty owed or the standard of care applicable in a given situation” even though ACR standards themselves do not establish the standard of care.
I. INTRODUCTION

This practice parameter was revised collaboratively by the American College of Radiology (ACR) and the American Society for Radiation Oncology (ASTRO).

Timely, accurate, and effective communications are critical to quality in contemporary medical practices. Radiation oncology incorporates the science and technology of complex, integrated radiation treatment delivery and the art of managing individual patients. Through written physical (ie, hardcopy) and/or electronic (eg, digital) reports and direct communication, radiation oncologists convey their knowledge regarding patient care, services provided, and quality of care to others involved in the care of the patient. This communication should involve primary care physicians, medical oncologists, surgeons, other nonradiation oncology health care providers, as well as members of the radiation oncology treatment team (such as other physicians, nurses, radiation therapists, dosimetrists, medical physicists, tumor registrars, and quality assurance personnel) [1].

Radiation oncology activities must be clearly articulated for communications objectives to be met. Although not all technical aspects of treatment have to be included, certain basic information must be reflected in physician correspondence: an evaluation and assessment of the patient’s clinical problems; a summary of any multidisciplinary cancer care; the plan and delivery of radiation therapy treatments; the monitoring of response, side effects, and outcome; and the plan for subsequent care (conference, discussion, or clinic). These should be communicated, at a minimum, by an initial consultation, treatment (completion) summary, and follow-up evaluation.

There remains no substitute for direct, timely personal communication on all clinically relevant matters with the patient, the patient’s family or support system, and physicians or other health care professionals.

The communication of certain Protected Health Information (PHI) concerning patients is regulated under the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the HIPAA Privacy Rule. Any use, disclosure, or creation of PHI must be in accordance with the Privacy Rule. Particular attention should be given to the use of electronic or digital means of communicating with both physicians and patients. Appropriate privacy, security, and technical safeguards should be established and consistent with the Health Information Technology for Economic and Clinical Health Act of 2009 (HITECH).

II. COMMUNICATIONS: GENERAL

A. Medical Record

Practice parameters need to be revised periodically regarding medical record documentation for professional and technical components of services delivered. Criteria unique to radiation therapy services are also contained in the ACR Practice Parameter for Radiation Oncology [2].

The medical record should address the following:

1. Permanent documents should be prepared legibly and in a timely, useful, and clinically appropriate manner. Institutions, medical staff bylaws, and third-party payers frequently have requirements regarding the timeliness of completing medical records. However, in general, consultation notes, progress notes, letters, follow-up notes, and treatment summaries should be in the medical record within 1 to 2 weeks after the visit or the completion of treatment.

2. The material should be reviewed to minimize typographic errors and confusing or conflicting statements. Systems in which correspondence is disseminated without review “to expedite communication” are discouraged. Abbreviations and other notations should follow prevailing standards. Jargon, abbreviations, and acronyms unique to radiation oncology should be avoided.

3. Proper mechanisms for signature (authentication) and policies for distribution of any correspondence should be in place, assuring security and confidentiality.

4. The timely distribution of the final document must be assured by transmission via direct mail, fax, and/or electronic means as dictated by the nature and urgency of the clinical setting.
5. The communications are a part of the patient’s permanent medical record. Record retention must be in compliance with state and federal requirements.

B. Electronic Communications

Electronic charting and treatment management (record-and-verify) systems are becoming increasingly prevalent. These systems must meet the federal government’s HIPAA security standards for handling electronic media and PHI. These security standards address the protection, security and integrity of electronically maintained patient information. Any reports from these systems, including voice recognition-generated documents, should be reviewed by the radiation oncologist or designee for clarity, succinctness, content, accuracy and ease of understanding by all intended recipients.

C. Doctor-Patient Communication

Effective communication between physicians and patients is a primary goal of the radiation oncologist in all clinical and treatment matters. Efforts should focus on establishing a supportive and interactive relationship with patients and collaborative working relationships with other caregivers to ensure sufficient information is provided to and understood by the patient. Alternative management options should be presented and discussed prior to initiation of therapy, and changes in treatment plans should be addressed and communicated in a timely fashion with the patient and other concerned persons [3]. Such interactions help emphasize and promote a patient-oriented perspective. Direct dialogue is typically the primary form of communication between physician and patient, but it may be [4] enhanced through the use of pertinent printed materials, computer-accessible information, video presentations and other aids [5-8]. Conversations with patients should be documented in the medical record.

Increasingly, direct electronic mail communication with collaborating and referring physicians, as well as with patients, is occurring. With other physicians engaged in the management of the patient, this electronic communication can be both effective and efficient, however risks of unintended sharing of PHI do exist. All parties must establish reasonable safeguards to minimize the risk of inappropriate distribution of information through policies, procedures, and secure mail services.

The HIPAA Privacy Rule allows covered health care providers to communicate electronically with their patients, such as through e-mail, provided they apply reasonable safeguards when doing so. See 45 C.F.R. § 164.530(c). For example, certain precautions may need to be taken when using e-mail to avoid unintentional disclosures, such as checking the e-mail address for accuracy before sending, or sending an e-mail alert to the patient for address confirmation prior to sending the message. Health care providers must also be aware that although the Privacy Rule allows the communication of unencrypted PHI by e-mail, the disclosure of such information may require notification of such “breach” in accordance with the Breach Notification Rules of HIPAA².

Use of social media (eg, Facebook®, Twitter®) to communicate with patients should not be used as these methods do not have the appropriate safeguards to protect patients and providers from unintended dissemination of information.

The use of short message service (SMS) text and instant messaging services to transmit identifiable patient data or other medical information should be used with caution. Department or institutional policy governing the transmission of PHI by personal communication devices should be followed. For further information see the ACR–SIIM Practice Parameter for Electronic Medical Information Privacy and Security [9].

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² 45 CFR Parts 160 and 164, Breach Notification for Unsecured Protected Health Information, August 24, 2009.
III. RADIATION ONCOLOGY REPORTS

A. Consultation

1. Specifics
   a. The consultation report should include the following:
      • Chief complaint
      • History of present illness
      • Past medical illness including any prior radiation or other cancer therapies
      • Current medications and pertinent allergies (eg, medications, contrast agents, foods, latex)
      • Family medical and patient social history
      • Review of systems
      • Vital signs, including pain and nutritional assessments
      • Performance classification (eg, Karnofsky or Zubrod)
      • Physical examination
      • Diagnostic test results, particularly pathology, imaging, and staging studies
      • TNM classification of the tumor(s) and/or the clinically appropriate staging
      • Impression or clinical assessment
      • Plan of care or management

   The consultation should include statements about the decision-making process and recommendations for subsequent care. Particular attention should be given to documenting oncology aspects and any comorbid diseases and risk factors that may affect radiation therapy and overall patient care.

2. Medical decision making

   The clinical impression and management recommendations (or plan) should clearly explain and address the following:
   a. The clinical impression indicating the primary tumor site, histology, and TNM stage [10]
   b. The differential diagnosis and natural history of disease (prognosis), as appropriate
   c. Identification of comorbid conditions that may influence treatment decisions
   d. Diagnostic tests to be reviewed
   e. Treatment options, including the intent of therapy (eg, cure, adjuvant, palliation, local control)
   f. The plan of care, including any additional recommended diagnostic studies, combined modality approaches, and plans coordinated with other disciplines
   g. The risks/benefits of the recommended therapy that were discussed with the patient, including the expected outcome as well as possible side effects and toxicities that may occur (for more details regarding informed consent, see the ACR Practice Parameter on Informed Consent – Radiation Oncology) [11]
   h. The anticipated treatment region(s); a description of protocols, guidelines, or references being followed can be noted.

   Radiation oncologists may prefer to make a summary communication with the referring physician and other physicians noting the pertinent aspects of history, physical examination, clinical assessment, and treatment plan [12]. Regardless of the specifics of the external communication, a completed and detailed internal document (containing all the necessary elements of evaluation and management) should be generated and maintained in the patient’s permanent radiation therapy record.

B. Clinical Treatment Management Notes (Including Inpatient Communication)

   Radiation oncologists evaluate and document at least weekly the progress of patients who are under routine therapy. In addition, relevant verbal or written communications with other members of the health care team should be documented in the medical record. Verbal physician-to-physician communication is recommended for urgent issues.
Documentation of clinical treatment management includes the following:

a. Accumulated radiation dose, patient’s tolerance to treatment, and progress toward the treatment goal, with analysis of any new pertinent data
b. Issues raised by the patient or treatment team (dietary, social service, etc)
c. Clinically relevant change in status or treatment plan (change in treatment intent, need for treatment break, etc)
d. Review of the technical aspects of the radiation therapy treatment plan and patient setup
e. Review of treatment localization (portal images, films, localization images or data) should be documented in the treatment management note or as a separate note of the patient’s technical treatment parameters.

Hospitalized patients receiving radiation therapy should have their daily treatment documented in their inpatient medical records.

C. Treatment (Completion) Summary

1. Introduction

The technical details and images related to actual clinical management and radiation therapy delivery must be retained in the radiation oncology permanent record and must be made available to others upon request if authorized by the patient or the patient’s power of attorney. A summary should be generated and distributed to the patient’s other pertinent health care providers that accurately describes the treatment process, the doses delivered to the target/tumor volume and other key organs, relevant assessment of tolerance to and progress toward the treatment goals, and subsequent care plans.

The style will reflect the radiation oncologist’s individual practice convention and the referral provider's needs. Some may use a standardized reporting format, and others a more descriptive personal letter. Narrative explanations of highly technical aspects of the treatment may be included in the treatment summary when considered to be informative, but these, at a minimum, should be included in the patient’s permanent record. Images and other documentation regarding the site of radiation therapy and the radiation dose distribution must be available on request when medically required or indicated.

2. Specifics

The treatment (completion) summary’s key elements should include the following:

a. Components for the summary of radiation therapy delivery
   • Patient identification and report date
   • Recipients of report (including tumor registry, if appropriate)
   • Diagnosis and TNM stage of disease
   • Treatment dates
   • Treatment status (eg, treatment course completed as planned, changed, suspended)
   • Clinical course, including side effects and management thereof and use of ancillary services (nutritional, psychosocial, etc)
     ➢ Treatment response with details deemed clinically useful, including activity/performance status
     ➢ Side effects and management thereof
     ➢ Interruptions or unplanned breaks in treatment
   • In addition the treatment summary should include the following elements:
     ➢ External beam: treatment technique (3-D conformal therapy, intensity modulated radiation therapy, stereotactic radiation therapy, etc), modality (x-rays, electrons, protons, etc), total dose, treatment fractions, dose to tumor/target volumes, and any key regions (including nodal areas and key organs), as appropriate
Concomitant/concurrent chemotherapy or other systemic treatment
Brachytherapy: Radionuclide, specification of treatment target and target dose; dose rate (high-dose rate, pulsed-dose rate, or low-dose rate), permanent versus temporary, and type of applicator or procedure (eg, intracavitary versus interstitial); administration dates of temporary brachytherapy or date of insertion for permanent implants
Radionuclide therapy: the administered radionuclide (chemical form [colloidal, tagged to antibody, etc], and name), route of administration, total activity, and date administered
- Follow-up plans including referrals to other health care providers, instructions, and/or diagnostic studies.
- Discharge instructions regarding aftercare following radiation therapy
b. Optional items of technical nature may include the following:
- Details of external beam radiation therapy (beam orientation, beam energy)
- Organ localization techniques and methods of simulation
- Organ motion management and image guidance
- Treatment aids or devices (eg, wedges, bolus)
- Pertinent quality assurance measures (eg, diodes, treatment images, etc)

The style, content and detail of this summary must be tailored to the clinical setting and prevailing practice standards. It should contain elements that accurately and succinctly reflect the program of care administered in a language understandable to physicians who are not radiation oncologists [13].

D. Follow-Up Visits

1. Introduction

The continuity of patient care after radiation delivery is reflected by the initial and subsequent clinical evaluations performed by the radiation oncologist. Although other physicians participate in patient follow-up care, radiation oncologists with specific training and experience are familiar with the effects of radiation and can provide a uniquely qualified and important diagnostic and management perspective. Correct diagnosis and management of acute, subacute, and late effects from either radiation alone or combined modality programs, detection of recurrent disease, and advice on additional diagnostic and treatment strategies are examples of the special services provided by the radiation oncologist. Follow-up assessments are integral to high-quality patient care.

2. Specifics

The form and content of a follow-up visit should remain consistent with the initial consultation and treatment summary.

a. Subjective
- Interval history since the last patient encounter
- Cancer-related symptoms and problems, including a general and oncologic review of systems
- Status of symptoms related to cancer therapy
- Other clinical issues to be addressed, including quality of life, pain and nutritional assessments, and the patient’s emotional concerns

b. Objective
- Pertinent clinical findings in any irradiated field(s)
- Multisystem examination to detect any evidence of active oncologic disease
- General or focused physical examination, as appropriate
- Statement reviewing any pertinent diagnostic data
- When applicable, a description to allow assessment of radiation therapy’s late effects on tissues and organs; a comparison of current assessments to prior examinations to reflect continuity of care
c. Impression or assessment statement
   - General patient and cancer status
   - Time since diagnosis and/or completion of radiation therapy
   - Performance or functional activity status
   - Current cancer therapies being administered to the patient
   - Description of radiation related side effects; several designations are available using standard criteria such as the Common Toxicity Criteria for Adverse Events (CTCAE), Version 4.0.

d. Disposition and plan of care
   - Pertinent recommendations to patient, referring physicians, and other health care providers
   - Recommendations for subsequent diagnostic studies and treatment strategies, as appropriate
   - Changes in medications and documentation of new prescriptions, as appropriate
   - Next follow-up visit

If it is anticipated that the radiation oncologist will not follow up with the patient, it is recommended that the report to the referring physician include a request for periodic updates on the patient’s progress. These updates will facilitate continuity of care should the patient require further radiation therapy.

IV. SUMMARY

The radiation oncologist’s participation in the multidisciplinary management of patients is reflected in timely, medically appropriate, and informative communication with the referring physician and other members of the health care team. The timely generation, authentication, and dissemination of these reports significantly improves their utility and improves the quality of patient care. Written reports containing standardized components are a matter of course, and they should be in compliance with accepted professional standards. However, documentation must remain sufficiently specific to address the patient’s individual medical management needs and overall clinical environment in which the care is given. In short, the radiation oncologist must communicate effectively with patients, caregivers, other physicians, and the other members of the health care system.

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REFERENCES


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