

<b>Policy Title:</b> Practice Guidelines for Digital Mammography	
<b>Section:</b> Quality Management	<b>Reference No.</b> SG-DG 100
<b>Effective:</b> January 2008	<b>Revision:</b> February 2013

## 1. SCOPE

Breast Screening Program Chief Radiologists  
 Breast Screening Program Chief Technologists  
 Breast Screening Quality Assurance Support Group  
 Radiology Managers

## 2. POLICY

Practice guidelines for digital mammography for the BC Cancer Breast Screening program are based upon The American College of Radiologists (ACR) report *Practice Guideline for Determinants of Image Quality in Digital Mammography*<sup>1</sup> (here included).

## 3. RELATED POLICIES

## 4. RESPONSIBLE PARTY

Breast Screening Quality Management Committee

---

<sup>1</sup> ACR Practice Guideline for Determinants of Image Quality in Digital Mammography, 2013

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 guidelines 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 guidelines and technical standards will be reviewed for revision or renewal, as appropriate, on their fifth anniversary or sooner, if indicated.

Each practice guideline and technical standard, representing a policy statement by the College, has undergone a thorough consensus process in which it has been subjected to extensive review, requiring the approval of the Commission on Quality and Safety as well as the ACR Board of Chancellors, the ACR Council Steering Committee, and the ACR Council. The practice guidelines and technical standards recognize that the safe and effective use of diagnostic and therapeutic radiology requires specific training, skills, and techniques, as described in each document. Reproduction or modification of the published practice guideline and technical standard by those entities not providing these services is not authorized.

Revised 2012 (Resolution 36)\*

## ACR–AAPM–SIIM PRACTICE GUIDELINE FOR DETERMINANTS OF IMAGE QUALITY IN DIGITAL MAMMOGRAPHY

### PREAMBLE

These guidelines are an educational tool designed to assist practitioners in providing appropriate radiologic and radiation oncology care for patients. They 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 cautions against the use of these guidelines 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 physician or medical physicist in light of all the circumstances presented. Thus, an approach that differs from the guidelines, 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 the guidelines 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 the guidelines. However, a practitioner who employs an approach substantially different from these guidelines 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 these guidelines 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 these guidelines is to assist practitioners in achieving this objective.

### I. INTRODUCTION

This guideline was developed collaboratively by individuals with recognized expertise in breast imaging, medical physics, and imaging informatics, representing the American College of Radiology (ACR), the American Association of Physicists in Medicine (AAPM), and the Society for Imaging Informatics in Medicine (SIIM), primarily for technical guidance. It is based on a review of the clinical and physics literature on digital mammography and the experience of experts and publications from the Image Quality Collaborative Workgroup [1-3].

For purposes of this guideline, digital mammography is defined as the radiographic examination of the breast utilizing dedicated electronic detectors to record the image (rather than screen-film) and having the capability for image display on computer monitors. This guideline is specific to 2-dimensional (2D) digital mammography since the vast majority of digital mammography performed in the United States is 2D. Although some 3-dimensional technologies are in use, they are not addressed in this guideline since they continue to evolve and are not yet in widespread clinical use.