Society of Breast Imaging
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SBI News

The Member Newsletter of the Society of Breast Imaging **FALL 2006**

Presidential Message: *Maintenance of Certification, Maintenance of Confidence*

R. James Brenner, MD, JD

Most of us have heard of the upcoming Maintenance of Certification, or MOC, program, perhaps even read about it in one of the national journals. Some may have already participated in one element leading to MOC, a SAMS exam where questions are answered following a conference presentation, that can be applied toward completion of the ten year process. But I suspect that both the rationale and even details of the program are not familiar. That will change and the purpose of this column is to facilitate that change. This is an issue that affects not just breast imagers or even radiologists; it affects all of medicine.

There are a number of terms that relate to this subject with one of the more interesting terms being "pay for performance." (PFP) This lightening rod phrase is certain to capture the attention of most practitioners and its significance is illustrated by the changing attitude of the AMA (American Medical Association) which initially resisted any participation in a PFP initiative, until the government invited their participation in return for reconsidering drastic reimbursement cuts. Since the beginning of this Century, highlighted in an IOM (Institute of Medicine) report, the public and payers have been advocating a process that would improve the quality of healthcare in a manner that could be objectively measured. Pointing to other industries where certain metrics could be used to measure quality, such advocates have declined to accept the autonomy of the American physician and insisted on developing systems that at least begin to incentivise improvement in care. This effort in fact dates back at least ten years; consider the HEDIS standards that were applied to primary care physicians to encourage compliance with best practice patterns such as recommending screening mammography. Of interest, this year California will institute a trial program, rewarding primary care physicians who fulfill certain medical recommendations.

The American Board of Medical Specialties (ABMS), which includes the American Board of Radiology (ABR), has left the task of establishing parameters for MOC to each of their respective 24 Boards. Six core competencies are defined by the ABMS for all specialties and include medical knowledge, patient care, interpersonal and communication skills, professionalism, practice based learning and self-improvement, and system based practice. Board certification reflects all of these and until 2002, those who received certification were not required to demonstrate any further evidence of continuing competency beyond compliance with approved programs for continuing education. Since 2002, ABR certification is granted for diagnostic radiologists for ten years, after which re-certification is mandatory. Otherwise, evidence of MOC is voluntary but, as will be discussed below, external events may modify this condition.

This historic assumption that those who are involved in approved continuing education activities are helping to insure continuing competency has been challenged. The answer to this challenge is unknown. Under such circumstances, MOC programs may be seen as the next step in trying to provide the public and payers a basis for encouraging, if not insuring that

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Murray Rebner, MD

From The Editor: *AIM To Improve Mammography Performance*

Karla Kerlikowske's article describes how the NCI's Breast Cancer Surveillance Consortium (BCSC) will use a 2.5 million dollar award to improve mammographic interpretation. The AIM (Assessing and Improving Mammography) project will attempt to do so by a three phase effort. In phase one, researchers will determine the effect of volume of mammography examinations interpreted per year on radiologists' interpretive performance, independent of other variables such as patient, physician, and facility factors. In phase two the investigators will create assessment tests from community practices and determine whether cancer prevalence or other mammographic findings influence performance. Finally, the researchers will develop in-person, interpretive training programs with expert breast imagers and see if these improve performance.

Without knowing more of the fine details I would like to offer my comments on the program. First, I do not think any breast imager would be opposed to the AIM concept. We are all aware that mammography, albeit the gold standard for breast cancer screening, is far from perfect. For phase one, determining what, if any, minimum volumes of screening studies read per year are associated with better performance is important. However, the timing of the interpretations may also be important. If radiologist A reads 480 cases per year and reads 40 cases each month, and radiologist B, a back up reader in a practice, reads 480 cases over the last month of the year for two years to comply with FDA regulations, does radiologist A perform better than radiologist B due to more frequent exposure to the modality? Also, is there a daily interpretation volume above which performance declines? We are all under pressure to do more with less. Certainly, experience and ancillary support tools such as physician extenders, checklists in lieu of dictation, etc. would factor into this determination. However, at this time I agree that a lower volume limit is the place to begin.

The second and third components of the program, in my mind, will essentially be linked. Anytime we hear about more test taking (SAMS, recertification, etc.) the natural reaction is to say "not again!" However, as Dr. Brenner points out in his presidential message, Maintenance of Certification likely will become linked to reimbursement (pay for performance). Mammography assessment tests already exist and provide good clinical and didactic teaching for a variety of diagnostic problems. Dr. Ed Sickles and colleagues at the ACR have created three such self assessment modules (Interpretive Skills Assessment) for mammography which are available in CD-ROM format. The AIM program will start by testing radiologists with community practice representative screening cases. Over time, perhaps the program could also select diagnostic cases to further sample the breast imager's skills. Assessment and management recommendations based on the diagnostic workup could also be evaluated. It makes no sense to this writer to identify potential areas of improvement to the breast imager if he/she cannot easily follow up in these areas by taking more training. The idea of providing in-person, interactive training with expert breast imagers is an excellent way of doing this. CME credits could be obtained in the process and maybe over time, a rotating group of expert radiologists and technologists could travel to different parts of the country and offer this service. This would be a different refreshing way of meeting CME needs. Current topics such as CAD, breast MRI and digital mammography might also be integrated into the interactive sessions.

Finally, as I said earlier, I do not think any breast imager opposes the concept of improving mammographic interpretation. However, some would oppose participating if the process was not made extremely "user friendly". I am sure that the investigators have realized this and done their best to minimize inconvenience to the participants. Those who wish to take part hopefully will be given credit, in the form of time, by their colleagues. Secondary benefits from the program such as fewer malpractice suits are likely to result. If, as Dr. Sickles says, the program has the potential to substantially improve mammographic performance in clinical settings, why not support it? I do. ●

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IHE Digital Breast Imaging

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Boston, MA

Since June 2005 when the first meeting of users in digital imaging occured. The digital breast imaging, the IHE mammography subcommittee has made amazing progress working with the vendors to define electronic and information systems' standards within digital breast imaging.

As many of you know first hand, there are many problems currently within digital breast imaging that resulted from the fact that the FDA required mammography vendors to develop complete systems from acquisition to interpretation workstations. Consequently, manufacturers developed proprietary systems that poorly integrated with other vendors.

A common scenario is a site with several manufacturers' screen-film machines. Replacing these analogue machines with each manufacturer's digital equivalents requires one to also purchase the same manufacturer's interpretation workstation, albeit recent advances in universal workstations. This latter situation is still not ideal since third party work stations may not be able to post-process digital images if that post-processing is performed outside of the acquisition station. In summary, one may have many additional workstations reflecting the number of mammography manufacturers at one's site. Additionally an alternator adjacent to the interpretation workstation is needed for comparison films. Most mammography reading stations, designed for film-screen interpretation, are poorly designed to handle the increased amount of hardware needed for digital reading, as well as the heat output from the additional computers, and light pollution from the alternators on to the monitors.

Additional problems have stemmed from PACS systems now managing and storing large files which are approximately 30 MB per image from an area of radiology where large volumes of patients pass through daily.

Workflow issues are paramount. They can be broken down into acquisition, post-processing, and reporting components. Problems exist in which images are poor quality at the acquisition systems making it difficult for technologists to screen for motion or for radiologists to see some calcifications for needle localizations. Additionally, acquisition stations do not display images from other vendors. With regards to post-processing, manufacturers use proprietary algorithms to produce the "for presentation" images. Although a manufacturer will be able to show a different manufacturer's images, the format will not be in a format supported for interpretation. Therefore, follow-up images on patients must be performed on the same manufacturers' machines time after time. Otherwise, a radiologist finds himself/herself moving from chair to chair to compare images, an impossible scenario. With regards to reporting/interpretation issues, due to different number of pixels per image per manufacturer, breasts are displayed at different sizes when viewed on the same monitor from two different manufacturers. Management of patients' work-lists differs between manufacturers. One must also determine if the measurements on an acquired magnified image is true size or also subject to magnification. Manufacturers handle this measurement step differently, and consequently this can markedly affect planning for needle localizations.

Hinging on workflow problems is the issue that technologists may have to push images to interpretation workstations and PACS. This problem leads to human errors of forgetting to do so particularly if sending images to PACS is not integrated to the interpretation. Previous digital images are not always immediately available and may have to be pushed or pulled from the PACS system, but one may not know on which vendor's machine the previous ones were imaged if there has been cross-over.

These are some of the issues that have made the move from analogue to digital breast imaging very difficult.

In the past year and a half, the Mammography IHE subcommittee has made significant progress to achieve integration. The purpose of IHE is to define basic standards for manufacturers so that they can be integrated into one seamless system. Vendors are not limited by these standards and can still develop unique functionality beyond the standards to continue to strive for market share.

Accomplished this year is the Mammography Image Profile which is a supplement to the IHE Radiology Technical Framework. The profile is available on the at: http://www.ihe.net/Technical_Framework/upload/IHE_RAD-TF_Suppl_MAMMO_TI_2006-04-13.pdf).

Currently, the subcommittee is working on the Workflow Profile (this effort being chaired by Gordon Smith, neither a vendor or a radiologist but neutral party former director of MGH Radiology Informatics). The subcommittee met in July/August to define the issues and will be meeting in November and January to hammer out line by line the Workflow Profile.

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2007 CPT® Code Update Relocates Mammography and Most Guidance Codes

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Look for pertinent changes in the CPT® 2007 code book that will affect radiology practices and will require revision to computer systems and charge sheets. Significant among the changes is the relocation of a number of older codes to more specific sections within the CPT code book, e.g., relocation of mammography and most guidance codes to the 77000 series section.

The relocation of these codes within the 2007 CPT codebook is part of an AMA organizational restructuring (CPT 5 Data Model Project) to facilitate computer processing and interoperability with various computer systems. Codes which were previously listed under "Other" have been relocated to more descriptive sections. This relocation will include a host of codes with which many are familiar and which include: *mammography* codes (76082, 76083, 76086, 76088, 76090, 76091, 76092, 76093, 76094, 76095, 76096); most *guidance* codes (75998, 76003, 76005, 76006, 76355, 76360, 76362, 76370,76393, 76394); *bone studies* (76020, 76040, 76061, 76062, 76065, 76066, 76070, 76071, 76075, 76076, 76077 76078, 76400); and *vertebroplasty* codes (76012, 76013). Most of the codes will be renumbered and relocated to the beginning section of the 77000 series section of the CPT codebook prior to the radiation oncology codes, while a few are being relocated to other more appropriate sections. Because of the number of radiology codes that need to be relocated, the beginning of the 77000 series of codes was the only choice. Click here for a crosswalk to the revised code structure. (Link)

Among the new codes for 2007 are functional MRI, nuchal translucency measurements, percutaneous radiofrequency ablation of pulmonary tumor(s), a unique all-inclusive code to describe uterine fibroid embolization, placement of interstitial device (e.g., fiducial marker) in the prostate, stereotactic body radiation therapy, stereotactic radiosurgery, and revision to the nuclear medicine genitourinary code section. In addition, a number of additions and deletions will be made to the Category III (tracking) CPT code section. See the September/October 2006 *ACR Radiology Coding Source™* for an update on the 2007 CPT code changes.

***Note*:** It is important that billing systems be updated and the new 2007 codes available for use when these codes become valid on January 1, 2007. The Health Insurance Portability and Accountability Act (HIPAA) transaction and code set rules require the use of the medical code set that is valid at the time the service is provided. Physicians, carriers and intermediaries no longer provide a 90-day grace period to implement new code sets. Reference the ACR Web site at http://www.acr.org/s_acrdoc.asp?CID=3323 &DID=19843 for additional information on this HIPAA requirement. ●

Mark Down These Dates!

April 14-17, 2007
SBI
8th Postgraduate Course
Westin Diplomat
Resort and Spa
Hollywood, Florida

May 8-10, 2008
33rd
National Conference on Breast Cancer
JW Marriott
Grande Lakes Resorts
Orlando, Florida

Scholarships For Members In Training

The Society of Breast Imaging is offering scholarships for residents interested in breast imaging and individuals currently in breast imaging fellowships to attend the SBI 8th Postgraduate Course, April 14 – 17, 2007 in Hollywood, Florida.

Interested individuals should submit an essay of no more than 250 words along with a letter of support from a faculty member and a letter from the department chair indicating the individual will be allowed the time off to attend the conference.

The scholarship will cover travel expenses up to $2,000, within the guidelines of the Society reimbursement policy.

Submit to: sbi@acr.org

Deadline: February 1, 2007

Include: Name, address, telephone and email address

2007 CPT® Code Updates

NEW 20007 CODES	CPT DESCRIPTOR
19105 (replaces 0120T	Ablation, cryosurgical, of fibroadenoma, including ultrasound guidance, each fibroadenoma
22526 (replaces 0062T)	Percutaneous intradiscal electrothermal annuloplasty, unilateral or bilateral including fluoroscopic guidance; single level
22527 (replaces 0063T)	Percutaneous intradiscal electrothermal annuloplasty, unilateral or bilateral including fluoroscopic guidance; one or more additional levels (List separately in addition to code for primary procedure)
32998	Ablation therapy for reduction or eradication of one or more pulmonary tumor(s) including pleura or chest wall when involved by tumor extension, percutaneous, radiofrequency, unilateral
37210	Uterine fibroid embolization (UFE, embolization of the uterine arteries to treat uterine fibroids, (leiomyomata), percutaneous approach inclusive of vascular access, vessel selection, embolization, and all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the procedure
55876	Placement of interstitial device(s) for radiation therapy guidance (e.g. fiducial markers, osimeter), prostate(via needle, any approach), single or multiple
70554	Magnetic resonance imaging , brain, functional MRI: including test selection and administration of repetitive body part movement and/or visual stimulation, not requiring physician or psychologist administration
70555	Requiring physician or psychologist administration of entire neurofunctional testing
76776 (replaces 76778)	Ultrasound, transplanted kidney , real time and duplex Doppler with image documentation
76813	Ultrasound, pregnant uterus, real time with image documentation, first trimester fetal nuchal translucency measurement, transabdominal or transvaginal approach; single or first gestation
76814	Ultrasound, pregnant uterus, real time with image documentation, first trimester fetal nuchal translucency measurement, transabdominal or transvaginal approach; each additional gestation (List separately in addition to code for primary procedure)
77371	Radiation treatment delivery, stereotactic radiosurgery (SRS), complete course of treatment OF of cerebral lesion(s) consisting of 1 session; multi-source Cobalt 60 based
77372	Radiation treatment delivery, stereotactic radiosurgery (SRS), complete course of treatment of cerebral lesion(s) consisting of 1 session; linear accelerator based
77373 (replaces 0082T)	Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions
77435 (replaces 0083T)	Stereotactic body radiation therapy, treatment management, per treatment course, to one or more lesions, including image guidance, entire course not to exceed 5 fractions
+0159	Computer-aided detection, including computer algorithm analysis of MRI image data for lesion detection/characterization, pharmacokinetic analysis, with further physician review for interpretations, breast MRI (List Separately in addition to code for primary procedure) (Effective July 1, 2006)
+0174T (replaces 0152T)*	Computer-aided detection (CAD) (computer algorithm analysis of digital image data for lesion detection) with further physician review for interpretation and report, with or without digitization of film radiographic images, chest radiograph(s), performed concurrent with primary interpretation (List separately in addition to code for primary procedure) (Effective January 1, 2007)
0175T (replaces 0152T)*	Computer-aided detection (CAD) (computer algorithm analysis of digital image data for lesion detection) with further physician review for interpretation and report, with or without digitization of film radiographic images, chest radiograph(s), performed remote from primary interpretation (Effective January 1, 2007)

***Not listed in CPT code book, but effective 2007.

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2007 CPT® Code Updates *(continued)*

NEW 20007 CODES	CPT DESCRIPTOR
2007 Code Relocation	
55875 (replaces 55859)	Transperineal placement of needles or catheters into prostate for interstitial radioelement application, with or without cystoscopy
72291 (replaces 76012)	Radiological supervision and interpretation, percutaneous vertebroplasty or vertebral augmentation including cavity creation, per vertebral body; under fluoroscopic guidance
72292 (replaces 76013)	Radiological supervision and interpretation, percutaneous vertebroplasty or vertebral augmentation including cavity creation, per vertebral body; under CT guidance
76998 (replaces 76986)	Ultrasonic guidance, intraoperative
77001 (replaces 75998)	Fluoroscopic guidance for central venous access device placement, replacement(catheter only or complete), or removal (includes fluoroscopic guidance for vascular access and catheter manipulation, any necessary contrast injections through access site or catheter with related venography radiologic supervision nd interpretation, and radiographic documentation of final catheter position) (List separately in additional to code for primary procedure)
77002 (replaces 76003)	Fluoroscopic guidance for needle placement (e.g. biopsy, aspiration, injection, localization device)
77003 (replaces 76005)	Fluoroscopic guidance and localization of needle or catheter tip for spine or paraspinous diagnostic or therapeutic injection procedures (epidural, transforaminal epidural, subarachnoid, paravertebral facet joint, paravertebral facet joint nerve, or sacroiliac joint), including neurolytic agent destruction
77011 (replaces 76355)	Computed tomography guidance for stereotactic localization
77012 (replaces 76360)	Computed tomography guidance for needle placement (e.g. biopsy, aspiration, injection, localization device), radiological supervision and interpretation.
77013 (replaces 76362)	Computed tomography guidance for, and monitoring of , parenchymal tissue ablation
77014 (replaces 76370)	Computed tomography guidance for placement of radiation therapy fields
77021 (replaces 76393)	Magnetic resonance guidance for needle placement (e.g. for biopsy, needle aspiration, injection, or placement of localization device) radiological supervision and interpretation
77022 (replaces 76394)	Magnetic resonance guidance for, and monitoring of parenchymal tissue ablation
77031 (replaces 76095)	Stereotactic localization guidance for breast biopsy or needle placement (e.g. for wire localization or for injection) each lesion, radiological supervision and interpretation
77032 (replaces 76096)	Mammographic guidance for needle placement, breast (e.g. for wire localization or for injection) each lesion, radiological supervision and interpretation
77051 (replaces 76082)	Computer-aided detection(computer algorithm analysis of digital image data for lesion detection) with further physician review for interpretation, with or without digitization of film radiographic images; diagnostic mammography (List separately in addition to code for primary procedure)
77052 (replaces 76083)	Computer-aided detection(computer algorithm analysis of digital image data for lesion detection) with further physician review for interpretation, with or without digitization of film radiographic images; Screening mammography (list separately in addition to code for primary procedure)
77053 (replaces 76086)	Mammary ductogram or galactogram, single duct, radiological supervision and interpretation
77054 (replaces 76088)	Mammary ductogram or galactogram, multiple ducts, radiological supervision and interpretation
77055 (replaces 76090)	Mammography; unilateral
77056 (replaces 76091)	Mammography; bilateral
77057 (replaces 76092)	Screening mammography, bilateral (2-view film study of each breast)
77058 (replaces 76093)	Magnetic resonance imaging, breast, without and/or with contrast material(s); unilateral
77059 (replaces 76094)	Magnetic resonance imaging, breast, without and/or with contrast material(s); bilateral
77071 (replaces 76006)	Manual application of stress performed by physician for joint radiography, including contralateral joint if indicated

2007 CPT® Code Updates (continued)

NEW 20007 CODES	CPT DESCRIPTOR
2007 Code Relocation	
77072 (replaces 76020)	Bone age studies
77073 (replaces 76040)	Bone length studies(orthoroentgenogram, scanogram)
77074 (replaces 76061)	Radiologic examination, osseous survey; limited (e.g. for metastases)
77075 (replaces 76062)	Radiologic examination, osseous survey; complete (axial and appendicular skeleton)
77076 (replaces 76065)	Radiologic examination, osseous survey, infant
77077 (replaces 76066)	Joint survey, single view, 2 or more joints (specify)
77078 (replaces 76070)	Computed tomography, bone mineral density study, 1 or more sites; axial skeleton (e.g. hips, pelvis spine)
77079 (replaces 76071)	Computed tomography, bone mineral density study, 1 or more sites; appendicular skeleton (peripheral) (e.g., radius, wrist, heel)
77080 (replaces 76075)	Dual-energy X-ray absorption (DXA), bone density study, 1 or more sites; axial skeleton (e.g. hips, pelvis, spine)
77081 (replaces 76076)	Dual-energy X-ray absorption (DXA), bone density study, 1 or more sites; appendicular skeleton (peripheral)(e.g. radius, wrist, heel)
77082 (replaces 76077)	Dual-energy X-ray absorption (DXA), bone density study, 1 or more sites; vertebral fracture assessment
77083 (replaces 76078)	Radiographic absorptiometry (e.g. photo densitometry, radiogrammetry), 1 or more sites
77084 (replaces 76400)	Magnetic resonance (e.g. proton) imaging, bone marrow blood supply

Deleted Codes as of 01/01/07

55859 See 55875	**76066** See 77077	**76091** See 77056	**76400** See 77084
75998 See 77001	**76070** See 77078	**76092** See 77057	**76778** See 76775-76776
76003 See 77002	**76071** See 77079	**76093** See 77058	**76986** See 76998
76005 See 77003	**76075** See 77080	**76094** See 77059	**78704** See 78707-78709
76006 See 77071	**76076** See 77081	**76095** See 77031	**78715** See 78701-78709
76012 See 72291	**76077** See 77082	**76096** See 77032	**78760** See 78761
76013 See 72292	**76078** See 77083	**76355** See 77011	**0082T** See 77373
76020 See 77072	**76082** See 77051	**76360** See 77012	**0083T** See 77435
76040 See 77073	**76083** See 77052	**76362** See 77013	**0062T** See 22526
76061 See 77074	**76086** See 77053	**76370** See 77014	**0063T** See 22527
76062 See 77075	**76088** See 77054	**76393** See 77021	**0120T** See 19105
76065 See 77076	**76090** See 77055	**76394** See 77022	**0152T** See 0174T, 0175T

Descriptor Revisions as of 01/01/07

70540-70543	MRI Orbit, Face and/or Neck
76XXX	Ultrasound (non-ophthamological) codes
78700-78760	Genitourinary Section — See Nuclear Medicine

For detailed information on the new CPT codes for 2007 see the *CPT 2007* codebook, *CPT Changes: An Insider's View 2007*, *CPT Assistant*, September/October 2006 ACR *Radiology Coding Source™* electronic newsletter.

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Then it will be available for public comment in February-March. A corollary committee that dovetails into the Mammography Workflow efforts is the IHE Reporting Workflow committee. For the first time, cardiologists and the American College of Cardiology (ACC) joined radiologists and radiology vendors in October to define the problems of report integration.

Planned for 2007 is the annual IHE connect-a-thon in which vendors will bring their hardware/ software and show the integration that has been defined on the recently developed profiles. At the SBI meeting in April 2007, vendors are planning to show this integration to the public.

The process of IHE has been an interesting and sometimes perplexing process for me. I gladly volunteered and joined forces with Drs. Rita Zuley (Elizabeth Wende Clinic) and Judy Wolfman (Northwestern U.) as I had publicly declared that working with digital mammography was a "pencil in the eye". At the table were 25-30 vendors. We, the radiologists were outnumbered 10 to 1. At first it seemed that we were on separate teams with different goals. "They" the vendors wanted to determine what was going to happen and what could be done, and "we" the radio-logists, also the consumers and users, were adamant to dictate the end points. The foreign language was "Vendor-IT-Speak", having never been given in high school. "Procedures" were not related to needles in breasts but had been defined to be the equivalent of any radiological examination. "Actors" were not those "who play a doctor on TV" but referred to "information systems that produce, manage, or act on information associated with operational activities in the enterprise." It took several face to face discussions for the group to gel into one force and develop the mutual respect that is essential to become a team. "We" were markedly assisted by Drs. David Channin, MD, from Northwestern, and David Clunie, MBBS, from RadPharm, who are each radiologists and IT-gurus. They are capable of going toe-toe with the vendors when vendors are in the mood of IT-double-speak-I-am-going-to-bamboozle-you behaviors so that the radiologists' interests are kept in the foremost goals. Nevertheless in spite of everyone's disparate backgrounds, I believe that the presence of radiologists at these discussions has been welcomed.

Before closing, I would like to try to arouse interest in other radiologists in IHE. Prior to my involvement, I had only heard of IHE as signs at RSNA on the poster floor level, but I had no idea what IHE did, probably because breast imaging was the last to become a digital modality. This year marks the 9th year of IHE. There are many profiles that have been written by countless hours of volunteer work. Prior to the development of the mammography subcommittee, the vendors wrote most of these profiles. Even long standing IHE members admitted that IHE was poorly advertised amongst radiologists. The involvement of the radiologists in Breast Imaging marked a

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SBI and ACR Urge FDA for Mandatory Accreditation of Stereotactic Breast Biopsy

D. David Dershaw, MD, former president of the Society of Breast Imaging and the first chair of the American College of Radiology Committee on Stereotactic Biopsy Accreditation, urged the Food and Drug Administration (FDA) National Mammography Quality Assurance Advisory Committee to remove the current exemption for stereotactic breast biopsy units under Mammography Quality Standards Act (MQSA) regulations.

Dr. Dershaw testified that the ACR has been successfully accrediting stereotactic breast biopsy systems since 1996. Currently, more than 450 of these units in the United States are accredited through a voluntary ACR program which evaluates personnel, equipment, and clinical performance of the biopsy procedure and provides the applicant with suggestions for improvements in quality.

Dr. Dershaw, of the Memorial Sloan-Kettering Cancer Center, spoke September 28-29 in Rockville, Md., on behalf of the Society of Breast Imaging and the ACR at the FDA's National Mammography Quality Assurance Advisory Committee.

The FDA is drafting changes to MQSA regulations and is considering removing the current exemption for stereotactic breast biopsy units. Dr. Dershaw stated that both the SBI and the ACR endorse the regulation of stereotactic breast biopsy under MQSA. ●

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change in the process in which "we" were going to determine what "we" needed. I have now attended a few meetings with the Technical Committee, the last one related to the Reporting workflow. Dr. Channin and myself were the only radiologists. I would have liked to have seen more radiologists representing different types of practices. If you want a system that works efficiently for your practice, then you must take the time to become involved. Even if you cannot attend the meetings directly, you can ask to call in on conference call. The person to contact at RSNA is Chris Carr (ccarr@rsna.org). When the profiles are completed they are available on the web for public comment. These are opportunities to create what you need which and this will only happen if you become involved.

Familiarize yourself with the web site: www.ihe.net.

Referencing the IHE standards when negotiating with vendors on new equipment is intended to help radiologists work more efficiently. ●

IHE Demonstration at SBI 8th Postgraduate Course

Attendees will have the opportunity to participate in an interactive Integrated Healthcare Enterprise (IHE) demonstration on digital mammography display and workstation functionality. Check the SBI website in the coming months for more information.

Gerald Dodd Lecture at SBI 8th Postgraduate Course

Etta D. Pisano, MD will present the Gerald Dodd Lecture titled "What We Learned from DIMST" on Sunday, April 15, 2007.

ACR Mammography Accreditation: Frequently Asked Questions

Priscilla F. Butler, MS
Senior Director, ACR Breast Imaging Accreditation Programs

Does your facility need help on applying for mammography accreditation? Do you have a question about the ACR Mammography QC Manual? Check out the ACR's ***new accreditation web site portal*** *at www.acr.org; click "Accreditation," then "Mammography." The "Program Overview" and "Frequently Asked Questions" were completely updated and reorganized in July to provide more useful information on accrediting digital mammography equipment. In addition, most of the mammography accreditation application and QC forms are now available for downloading. You can also call the Mammography Accreditation Information Line at (800) 227-6440.*

Monitors and Workstations

Q. Does my facility have to use an FDA-approved review workstation to interpret digital mammograms?

A. No. However, the FDA recommends that only monitors specifically cleared for full-field digital mammography (FFDM) use by FDA's Office of Device Evaluation (ODE) be used. (See FDA's Modifications and Additions to Policy Guidance Help System #9.)

Q. We just installed our first FFDM unit. Does our medical physicist also have to test the review workstation along with the new FFDM unit as part of the Mammography Equipment Evaluation? Do we have to submit the review workstation test results for accreditation?

A. Yes and yes.

Q. We have just added a second FFDM unit. Images from this unit are interpreted on our current review workstation. This review workstation was evaluated during the medical physicist's Annual Survey of our old FFDM unit. Does our medical physicist have to retest that review workstation along with the new FFDM unit as part of the Mammography Equipment Evaluation? Do we have to submit the review workstation test results for accreditation?

A. No and yes. If the review workstation was tested previously with another FFDM unit at that site during its Mammography Equipment Evaluation or Annual Survey, the medical physicist does not have to retest the workstation. However, the medical physicist should indicate on the Mammography Equipment Evaluation summary forms sent with the accreditation application when the workstation was tested and the results.

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Novel Collaboration Advances Research to Improve Mammography Performance

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The National Cancer Institute's (NCI) Breast Cancer Surveillance Consortium (BCSC) was recently awarded $2.5 million from the Breast Cancer Stamp Fund and the American Cancer Society to help support new research on how to improve mammographic interpretation. The title of the project is "Assessing and Improving Mammography (AIM). The funding provided by the American Cancer Society is provided through a generous donation from the Longaberger® Company's Horizon of Hope Campaign®.

This is a novel collaboration among public and private agencies that builds on the BCSC's history of collaborative research. The project was initiated by the American Cancer Society, which has a longstanding relationship with the Longaberger® Company. Dr. Robert Smith from the American Cancer Society (ACS) approached NCI after an analysis and report by the Institute of Medicine (IOM) identified a shortage of research regarding measuring and improving mammography interpretive performance skills. NCI oversees a variety of projects funded by money collected from the purchase of Breast Cancer Stamps in US Post offices, and has worked with the BCSC to provide funds to evaluate mammography performance and practice in community settings.

The BCSC was established in 1994. The BCSC is well-suited to study mammographic interpretation because it collects longitudinal data on mammography interpretive performance and includes large numbers of women, mammograms, and radiologists. Each of the mammography registries has created a mammography database that is linked to population-based cancer databases and/or pathology data. As of December 2005, the BCSC pooled database had over 5 million radiology events for over 1.5 million women covering the years 1994 to 2005. The database has broad racial representation, similar to the US population overall.

A recent IOM report, Improving Breast Imaging Quality Standards, *provided an important catalyst for the AIM project by finding that mammography interpretation remains quite variable despite the improvement in its technical quality since the implementation of the Mammography Quality Standards Act (MQSA) of 1992. "I participated in the IOM review and was struck by the unique opportunity to act on the recommendations from this report and move forward with a research agenda to better understand the measurement of interpretive performance, and to improve it," says Robert Smith, PhD, and Director of Cancer Screening at the ACS.*

The AIM project is designed to discover factors and interventions that can reduce variability and improve the overall quality of mammography interpretation through three main research activities. In the first activity, BCSC investigators will determine the effects of volume of mammography examinations interpreted per year on radiologists' clinical interpretive performance, controlling for patient, physician, and facility factors that are known to influence performance measures. They will test the hypothesis that lower annual interpretive volume is independently associated with poorer clinical performance. Determining whether the volume of mammograms interpreted every year actually influences clinical practice may help the Food and Drug Administration and radiologists decide whether the current recommended minimum of 960 mammography examinations interpreted over 2 years is optimal for breast cancer detection.

In the second component, the investigators will create assessment tests sets using representative screening mammography examinations from community practice. These tests will be used to assess radiologists' interpretive skills and evaluate whether cancer prevalence or the prevalence of various types of mammographic findings influence performance measures. The BCSC investigators are working with the American College of Radiology (ACR) to digitize images and prepare tests using software developed with ACR expertise. The tests also should reveal whether performance on these test sets is associated with performance measures in clinical practice.

In the final component, BCSC investigators will develop and test two innovative educational programs designed to improve radiologists' mammography interpretive skills by focusing on the types and locations of findings that are particularly challenging for radiologists to identify. The first program is an in-person, interactive intervention in which expert radiologists will use selected mammography examples as teaching cases. The second is a DVD version of the in-person intervention.

"This research has the potential to substantially improve mammography performance measures in clinical settings," says Ed Sickles MD, Professor of Radiology at the University of California, San Francisco, and national expert in mammography.

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"This research also should have direct benefits for radiologists," adds R. James Brenner MD, Professor of Radiology at UCSF and President of the SBI. "In an era characterized by PQI (Performance Quality Improvement), it is a natural extension of our work to understand how well we are doing, and how we can better assess and improve performance. Such efforts set the stage for maintaining high-quality mammography in this country."

The AIM project started in September 2006 by mailing to community radiologists, a survey designed to determine the current practices in the radiology community as it pertains to mammography. In the September 2007, the BCSC investigators plan to start assessing radiologists' interpretive skills with test sets created with funds from this grant.

This novel project brings together contributions from two funds committed to improving breast cancer care, two agencies committed to research, experienced investigators and physicians responsible for mammography interpretations. "The goal is to improve mammography performance and benefit the millions of women screened in the United States each year. This is a great example of how collaboration in funding and research creates opportunities," states Stephen Taplin, MD who oversees the BCSC for NCI. "I look forward to the results." ●

President's Message

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physicians are seeking incorporate new information and approaches into clinical practice. To that extent, the ABR will ask diplomats to provide documentation of MOC in four different areas; professionalism, lifelong learning and periodic self-assessment, cognitive exposure, and practice performance.

As was outlined last year in a previous article, a general test at the end of ten years will address general professional issues and continuing education with evidence of SAMS completion will be required. Also recall that one need not seek MOC in all radiology subspecialties, but rather those which are germane to one's practice. Thus those who restrict their practice to only breast imaging will be encouraged to pursue projects related to this specific field. Other specifics regarding the program are currently being developed. The fundamental change in this context—and the one which may invite the greatest degree of confusion—regards performance quality assurance. Rather than simple education, the goal is to satisfy three benchmarks over ten years, currently referred to as type I and II, with a requirement for at least one type II activity. Type I activities may be involvement with local or institutional efforts. Indeed, some institutions already are involved in type I activities which might include periodic projects to assess accuracy of diagnosis (such as cross monitors). The intent to develop tools and enlist active participation in conforming to evidence-based practices. Collecting such data, analyzing it, comparing it to peers, and instituting those modifications which should improve outcomes with a subsequent reassessment is a basic tenet of MOC. Type II activities will seek external validation of a quality improvement activity. Current examples include participation in the ACR's RADPEER[tm] program where online assessment of previous comparison studies (e.g. CXR, mammography) are conducted to assess whether a substantial error may have been made on the prior examination and report. The ACR Interpretative Skills Assessment CDs are another example.

The ABR recognizes that this paradigm shift from simple CME activities to a more active demonstration of involvement with quality improvement measures will need to evolve. As the ABR studies and learns from different performance quality improvement (PQI) projects, it will develop templates for others to use with the assurance that such activities are considered accepatable. Thus, the only current requirement is participation; the type of activity can be both creative and variable, so long as it is approved by the Board. Indeed, at a recent summit meeting held by the ABR in which subspecialty societies were invited to attend, it was noted that the first ten year cycle is not meant to be harsh or restrictive. The Board hopes to establish a web based account for each participant where satisfaction of different MOC criteria can be tracked, monitored, and validated; a modest administrative fee will be sought to cover expenses to provide the system.

MOC requirements are mandated for those certified after 2002. Although voluntary for others, the implications of avoiding involvement with MOC are both speculative and formidable. No current mechanism exists to insure that all examinations are performed in an optimal manner. But payers seek reassurance that those submitting requests for reimbursement are meeting society-established standards for demonstrating continuing competence. Thus the possibility of economic credentialing exists. This has already been applied primarily in clinical medicine. However, certain aspects currently relate to radiology. In order to be certified by the FDA to perform mammography, federal statutory provisions require meeting

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technical standards for image production and professional standards for a certain volume of interpreted mammogams and continuing education. United Healthcare, the largest private 3rd party payer, is investigating in 15 states .the advisability of predicating reimbursement for examinations such as CT and MRI on formal accreditation. The Federation of State Licensing Boards is considering a showing of involvement with a formal MOC program as a condition of relicensure. The current philosophy for PQI is not punitive; it is assumed that collective data which might indicate deficiencies in one's performance will be enough to prompt individual or institutional interventions to improve performance. The data will be coded and protected under the current plan. Ultimately it is hoped that national data bases will be established to better compare individual performance with peer performance

There is little alternative to responding to the mandates facing medicine in the future. Both the ABR and the ABMS recognize that this new paradigm in the lifelong learning process will prompt changes in the way practice is conducted. Specialty societies were asked last year to begin to develop SAM tools, and last May leaders in our field indeed produced the first module for a national breast imaging meeting (National Conference on Breast Cancer). Likewise, the SBI will reach out to its pool of talented breast imaging specialists to assist the ABR in developing approaches that will satisfy current mandates. It is likely that many of these initiatives will be in conjunction with the ACR where resources will be employed to address the multitude of practice circumstances related to breast imaging.

The writer Frank Clark once observed, "If you can find a path with no obstacles, it probably doesn't lead anywhere." The obstacles that have been set in our way are not so formidable that we cannot succeed. This path may indeed lead to a better place. ●

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Frequently Asked Questions (continued)

Q. The physician's review workstation is not at the same physical location as the FFDM unit (it is off site). Is the medical physicist still required to test it during Mammography Equipment Evaluations and Annual Surveys of our facility's unit? Does the facility still need to submit QC results on that workstation to the ACR during accreditation?

A. Possibly and yes. There are at least two possible scenarios if the review workstation is *not* located at the facility where the FFDM unit is located:

- If the workstation ***was*** tested previously with another FFDM unit (either at the location of the workstation or a sister site), the medical physicist does not have to retest the workstation. However, the medical physicist should indicate on the Mammography Equipment Evaluation summary forms ***the MAP ID # of the facility where the workstation is located, when the workstation was tested and the results***.
- If the workstation is located off-site in an office with no FFDM units and ***was not*** tested previously, the medical physicist ***must include the review workstation in the FFDM unit's Mammography Equipment Evaluation***.

Q. All clinical images at our new FFDM facility will be printed and interpreted on hardcopy. There is no review workstation for the physician. Do we need to have access to a review workstation and submit the results of its Mammography Equipment Evaluation and QC testing for accreditation?

A. No. However, since this is an unusual situation (most facilities interpret from the softcopy), you must provide a letter signed by your lead interpreting physician stating that all interpretations will be done from hardcopy. Also, please note that any testing required by the manufacturer for the FFDM unit's display is still required since the technologist clinically uses this display when performing the examination.

Q. We just installed a new review workstation. (We have had our FFDM unit for several years.) Does our medical physicist have to conduct a Mammography Equipment Evaluation of this workstation? Do we have to submit the results of this test to the ACR?

A. Yes and no. It is important that your medical physicist conduct a Mammography Equipment Evaluation of your new workstation (and document his results in a report) to ensure that it is operating properly for image interpretation. However, you do not need to send this to the ACR at this time. We will request the results of the entire system's Annual Survey (which must include the review workstation tests) during accreditation renewal. ●