

**AMERICAN COLLEGE OF RADIOLOGY
COMMENTS ON IOM REPORT
“IMPROVING MAMMOGRAPHY QUALITY STANDARDS”**

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September 26, 2005

ACR COMMITMENT TO QUALITY IN BREAST IMAGING

- Voluntary mammography accreditation program begun in 1987
- Development of Breast Imaging Reporting and Database System (BIRADS) for mammography in 1993
- Development of accreditation program for stereotactic biopsy in 1996
- Development of BIRADS lexicon for ultrasound and MRI in 2003
- Establishment of permanent breast commission 2005
- Educational and self-assessment tools
 - Biennial National Conference on Breast Cancer
 - Mammography interpretive self-assessment program
 - Mammography education module at Armed Forces Institute of Pathology

PROBLEMS WITH MAMMOGRAPHY INTERPRETATION

- Too many false negatives?
- Recall rate too high or too low?
- Positive predictive value too low?
- Too much variability in interpretation?
- All of the above?

MAMMOGRAPHY INTERPRETATION US COMPARED TO UK

- Recall rate from screening, biopsy rate twice as high in United States compared to United Kingdom
- Practice climate, malpractice situation differs between the two countries
- Cancer detection rate:
 - US – 55 cancers per 1000 women screened over 20 years
 - UK – 43 cancers per 1000 women screened over 20 years
 - Most of the additional cases due to small invasive cancers and DCIS

Kerlikowski et al, 2005

THE EFFECT OF CHANGES IN TUMOR SIZE ON BREAST CARCINOMA SURVIVAL IN THE U.S.: 1975-1999

Elkin et al. Cancer 2005;104:1149

LOCALIZED TUMORS (N=166,317)

1975-1979 - <10% of breast cancers were <10 mm

1995-1999 - 25% of breast cancers were < 10 mm

REGIONAL TUMORS (N=99,522)

1975-1979 – 20% of breast cancers were < 20 mm

1995-1999 – 33% of breast cancers were < 20 mm

EFFICACY OF SCREENING

- Breast cancer mortality has decreased by 25% in the US in the past 10 years
- Tumor size has decreased over the past 30 years and accounts for most of the observed improvement in survival in localized disease

IMPENDING MANPOWER CRISIS IN BREAST IMAGING

- Only 33% of breast imaging fellowship positions filled for 2005
- Proportion of residents wanting to spend a significant percentage of time in breast imaging in their future practices
 - Bassett et al 2003 - 29%
 - Hardy et al 2005 - 3%

Massachusetts Radiology Resident Attitudes Toward Mammography

Hardy et al. JACR 2005;2:432

- 63 senior radiology residents surveyed among 6 training programs in Massachusetts
- Survey of future career plans
- Attitudes toward mammography

Massachusetts Radiology Resident Attitudes Toward Mammography

Hardy et al. JACR 2005;2:432

- 5/63 (8%) wanted to do mammography in the future
- 2/63 (3%) wanted to spend a substantial portion of time (>25%) reading mammograms
- 1/63 (1.5%) wanted to pursue breast imaging fellowship

Massachusetts Radiology Resident Attitudes Toward Mammography

Hardy et al. JACR 2005;2:432

Reasons for not wanting to spend a substantial portion
of time doing mammography

76% - Fear of lawsuits

49% - Not interesting

20% - Low pay

19% - Too stressful

IOM REGULATORY RECOMMENDATIONS

- Eliminate some inspection procedures
- Allow radiologists to pool auditing results from different facilities
- Require separate tracking of results of screening and diagnostic mammograms
- Require tracking of outcome of all cases with BI-RADS 0 assessment
- Regulate interventional mammography procedures (stereotactic biopsy, needle localizations)
- Regulate breast ultrasound and breast MRI

IOM REGULATORY RECOMMENDATIONS

- Require separate tracking of results of screening and diagnostic mammograms in order to compare to established benchmarks
 - Definition of screening varies among practices making comparison among facilities difficult
 - Some facilities do not differentiate between screening and diagnostic examination
 - Some facilities read on-line and convert screening needing additional imaging to diagnostic examinations
 - Questionable applicability of “benchmarks” to individual practices

IOM REGULATORY RECOMMENDATIONS

- Require tracking of outcome of all cases with BI-RADS 0 assessment
 - Not easily achieved with most commercially available software tracking programs
 - Requires substantial increased time, effort and expense to achieve
 - Already tracking BI-RADS 0 that become 4 or 5 after additional imaging
 - No proven benefit

IOM REGULATORY RECOMMENDATIONS

- Include regulation of interventional mammographic procedures (stereotactic biopsy) in MQSA
 - Justified to achieve improvement in quality
 - Stereotactic accreditation program exists
 - Increased cost and effort must be considered

IOM REGULATORY RECOMMENDATIONS

- Regulate breast ultrasound and breast MRI
 - Likely to result in improved technical quality
 - Feasible for breast ultrasound
 - Premature for breast MRI
 - Variable hardware, software
 - No established accreditation program
 - Associated with increased time, effort, cost

IOM REGULATORY RECOMMENDATIONS

- Increased regulation, particularly if unfunded, runs the risk of decreasing access through worsening manpower shortages, increased facility closure
- Goals of improvement in quality should be clearly understood
 - Technical quality
 - Interpretive performance
- New regulations should have high likelihood of improving targeted quality parameters

NON-REGULATORY MEASURES TO ADDRESS QUALITY IMPROVEMENT

- Development of tumor registries, mammography databases to allow easier determination of false negative rate
- Studies to evaluate means of improving quality
 - Auditing feedback, CME, reader volume
- Development of infrastructure to facilitate expanded audit
- Overhaul of malpractice system
- Increased reimbursement to support increased regulatory requirements

CONCLUSION

- ACR has a proven commitment to quality improvement in breast imaging and feels these efforts must continue
- Increased mandatory auditing requirements have not been shown to translate into improved quality that would justify the substantial commitment of time, effort and expense
 - Separating screening and diagnostic auditing
 - Tracking BI-RADS 0 cases
- Any additional regulatory requirements should be feasible, accompanied by sufficient support for implementation, and should be have high likelihood of resulting in improved quality
 - Stereotactic breast biopsy
 - Breast ultrasound
- Premature to require regulation of breast MRI

CONCLUSION

- MAMMOGRAPHY SAVES LIVES
- Quality improvement is a goal shared by all
- Access is in jeopardy
- Measures adopted to improve quality should enhance rather than detract from the ability to provide breast imaging services