



High-Tech Imaging Toolkit

The Minnesota Medical Association has created a list of resources to help physicians move toward the use of evidence-based decision support tools when ordering high-technology imaging procedures for patients.

When health plans in early 2007 introduced requirements that physicians obtain prior authorization from a third-party vendor before ordering high-tech imaging procedures such as CT, MRI and PET scans, the MMA asked health plans to withdraw these programs, and instead urged support for a community-wide effort to collect information that will result in a clear understanding of high-tech imaging use throughout Minnesota.

The MMA is committed to evidence-based medical practice and encourages physicians to evaluate and consider the implementation of decision support tools for imaging services as a way to ensure high quality care.

To help Minnesota physicians understand the evidence-based decision support tools available, the MMA has compiled an "Imaging Toolkit," which includes evidence-based guidelines, decision support tools, and physician education and quality improvement resources.

Links are provided below. Note that these are external links; the MMA cannot guarantee information on external links. Additionally, some links may require a subscription.

Appropriateness Criteria and Evidence-based Guidelines

Appropriateness Criteria

The ACR Appropriateness Criteria®
www.acr.org/s_acr/sec.asp?CID=1845&DID=16050

Evidence-based guidelines to assist referring physicians and other providers in making the most appropriate imaging or treatment decision

The American College of Cardiology Foundation (ACCF)
Appropriateness Criteria and e-toolkit

www.acc.org/qualityandscience/clinical/topic/topic.htm#appropriateness_criteria

Along with key specialty and subspecialty societies, the American College of Cardiology Foundation has developed Appropriateness Criteria. Link to clinical e-toolkit

www.acc.org/qualityandscience/clinical/ekit_appropriateness.htm

Evidence-Based Guideline Resources

[British Medical Journal](#)

www.bmj.com/cgi/collection/other_imaging_techniques

A monthly review of evidence of the effects of common clinical interventions

Cochrane Reviews www.cochrane.org/reviews/index.htm

Published on a quarterly basis, the Cochrane Review consists of a regularly updated collection of evidence-based medicine databases providing information to people who provide and receive care and those responsible for research, teaching, funding and administration at all levels

PubMed www.ncbi.nlm.nih.gov/entrez/query/static/clinical.shtml

An international, freely searchable index to the medical literature. PubMed will help you to search for therapy, causation, diagnosis and prognosis articles, as well as systematic reviews

MEDLINE <http://medline.cos.com/>

A comprehensive source of life sciences and biomedical bibliographic information. It contains nearly 11 million records from more than 7,300 different publications dating from 1965-present. MEDLINE is updated weekly.

MEDLINEplus <http://medlineplus.gov/>

An alternative to Medline for health consumers, a useful tool for health professionals as well

National Guideline Clearinghouse www.guidelines.gov

Professional Associations

American College of Radiology www.acr.org

The principal organization of radiologists, radiation oncologists, and clinical medical physicists in the United States, with more than 30,000 members.

American Roentgen Ray Society www.arrs.org

The oldest radiology society in the United States, providing monthly peer-reviewed journal and annual scientific assembly, as well as other radiology and educational resources.

Society of Interventional Radiologists www.sirweb.org

Minnesota Specialty Societies
www.mmaonline.net/specialtysocieties/index.cfm

AMA links to National Specialty Societies
www.ama-assn.org/ama/pub/category/7634.html

Point-of-Care Clinical Decision Support

Clinical Decision Support Vendors

Amirsys STATdx™ www.amirsys.com/

Point-of-care diagnostic decision support in imaging designed to support the practicing radiologist.

iCONSULT www.clinicaldecisionsupport.com/index.html

Solutions to meet clinical decision support needs

DynaMed www.dynamicmedical.com

A clinical reference tool for physicians for use at 'point-of-care'. With clinically-organized summaries for nearly 2,000 topics, it is the only evidence-based reference that answers most clinical questions during practice. It is updated daily and monitors the content of over 500 medical journals and review databases directly and indirectly by using many journal review services.

FIRSTConsult www.firstconsult.com

An evidence-based clinical information tool for health care providers. It synthesizes findings from journals and other evidence-based references in a structured format. It offers tools for differential diagnosis, evaluation and management of medical conditions, patient education, and procedure skills review. It is linkable from MDConsult, also.

Medicalis www.medicalis.com

Evidence-based decision support guidelines for diagnostic ordering, web-based applications at the point-of-care, and healthcare integration to link with other EHR applications.

RadPort™ Suite (Commissure) www.commissure.com/products.html

Focuses on assisting referring clinicians with ordering radiology exams and accessing multi-media results for their patients. RadPort's decision support criteria is based on prior work by the American College of Radiology Appropriateness Criteria. RadPort also has the ability to allow the referring physician to easily check the status of an exam and review the report after the exam has been performed.

UpToDate www.uptodate.com/

A comprehensive evidence-based clinical information resource available to physicians by subscription. UpToDate is designed to get physicians the concise, practical answers they need when they need them the most - at point of care.

Physician Education and Quality Improvement Resources

Radiology Websites

BrighamRAD <http://brighamrad.harvard.edu/education.html>

An online learning resource for both the clinician and medical student from the Department of Radiology at Brigham and Women's Hospital.

PediatricRadiology.com www.PediatricRadiology.com

A pediatric radiology and pediatric imaging digital library

Radiology.org www.radiology.org/

A radiology directory and custom search services to radiologists and professionals in the medical imaging industry

RadiologyEducation.com www.radiologyeducation.com/

A digital library of radiology education resources

RadiologyInfo.org www.radiologyinfo.org/

Designed to answer patient questions related to the many radiologic procedures and therapies available

Quality Improvement Resources

AHRQ QualityTools

www.qualitytools.ahrq.gov/search/SearchResultsTools.aspx?Type=3&txtSearch=imaging&num=500

A clearinghouse for practical, ready-to-use tools for measuring and improving the quality of health care. QualityTools is sponsored by the Agency for Healthcare Research and Quality (AHRQ).

ICSI www.icsi.org

ICSI champions health care quality and accelerates improvement in health care in Minnesota

MMA Quality Website <http://www.mmaonline.net/quality/index.htm>

Tools and information for Minnesota physicians on quality improvement, measurement, HIT, and patient safety

National Quality Measures Clearinghouse www.qualitymeasures.ahrq.gov/

A clearinghouse for clinical metrics for measuring and improving the quality of health care. QualityTools is sponsored by the Agency for Healthcare Research and Quality (AHRQ).

Continuing Medical Education

CME in Minnesota www.mmaonline.net/conferences/cme_calendar.htm

This calendar of CME activities is provided as a service of the Minnesota Medical Association Committee on Accreditation and CME.

Books

Google book search on Evidence-based imaging

[http://books.google.com/books?lr=&q="evidence based imaging"&as_brr=0](http://books.google.com/books?lr=&q=)

Journal Articles

Blackmore, CC. (2005). "Clinical Prediction Rules in Trauma Imaging: Who, How, and Why?" *Radiology* 235:371–374. <http://radiology.rsna.org/cgi/reprint/235/2/375.pdf>

Myriam Hunink, MG. "Decision Making in the Face of Uncertainty and Resource Constraints: Examples from Trauma Imaging" *Radiology*. 235:375–383. <http://radiology.rsna.org/cgi/reprint/235/2/375.pdf>

Schellinger, PD; Fiebach, JB; Hacke, W; and Röther, J. (2003). "Imaging-Based Decision Making in Thrombolytic Therapy for Ischemic Stroke: Present Status." *Stroke* 34;575-583. <http://stroke.ahajournals.org/cgi/reprint/34/2/575.pdf>

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