Massachusetts Medical Society first-of-its-kind survey of physicians shows extent and cost of the practice of defensive medicine and its multiple effects on health care in the state

Physician’s group says fear of liability costs billions in defensive medicine, reduces access to care, and may be unsafe for patients; calls for fundamental change of medical liability system

Waltham, Mass. – Nov. 17 -- A first-of-its-kind survey of physicians by the Massachusetts Medical Society on the practice of “defensive medicine” – tests, procedures, referrals, hospitalizations, or prescriptions ordered by physicians out of the fear of being sued – has shown that the practice is widespread and adds billions of dollars to the cost of health care in the Commonwealth. The physicians’ group says such defensive practices, conservatively estimated to cost a minimum of $1.4 billion, also reduce access to care and may be unsafe for patients.

The Investigation of Defensive Medicine in Massachusetts is the first study of its kind to specifically quantify defensive practices across a wide spectrum and among a number of specialties. The study is also the first of its kind to link such data directly with Medicare cost data.

The survey queried physicians in eight specialties between November 2007 and April 2008: anesthesiology, emergency medicine, family medicine, internal medicine, general surgery, neurosurgery, orthopedics, and obstetrics/gynecology. Lead researchers were Manish K. Sethi, M.D., of the Department of Orthopedic Surgery of Massachusetts General Hospital and a member of the Medical Society’s Board of Trustees and its Committee on Professional Liability, and Robert H. Aseltine, Jr., Ph.D., of the Institute for Public Health Research at the University of Connecticut Health Center in Farmington. The results were released to physicians last week at the Medical Society’s 2008 Interim Meeting of its House of Delegates, November 14-15 in Waltham.

The survey is also believed to be one of the largest of its kind, with 4,000 physicians asked to participate. A total of 883 physicians completed the survey, for a response rate of 27 percent.

“This survey clearly shows that the fear of medical liability is a serious burden on health care,” said Dr. Sethi. “The fear of being sued is driving physicians to defensive medicine and dramatically increasing health care costs. This poses a critical issue, as soaring costs are the biggest threat to the success of Massachusetts health reform efforts.”

7 tests and procedures Physicians were asked about their use of seven tests and procedures: plain film X-rays, CT Scans, Magnetic Resonance Imaging (MRIs), ultrasounds, laboratory testing, specialty referrals and consultations, and hospital admissions. The results were self-reported by the physicians responding to the survey.

The results showed that 83 percent of the physicians surveyed reported practicing defensive medicine and that an average of 18 to 28 percent of tests, procedures, referrals and consultations and 13 percent of hospitalizations were ordered for defensive reasons.

Cost is in Billions Sethi and Aseltine estimated the costs of the tests to be $281 million for the eight specialties surveyed, based on Medicare reimbursements rates in Massachusetts for 2005-
In 2006, the cost of unnecessary hospital admissions was estimated to be $1.1 billion, for a combined total estimate of nearly $1.4 billion. The authors said the dollar estimates do not include tests and diagnostic procedures ordered by physicians in other specialties, observation admissions to hospitals, specialty referrals and consultations, or unnecessary prescriptions. The eight specialties represented in the survey account for only 46 percent of the physicians in the state.

Because of those excluded elements and the fact that less than half of the state’s doctors were represented in the survey, the researchers said that the actual cost of defensive medicine in Massachusetts is significantly higher than the survey quantified.

Defensive medicine may come in various forms, including the ordering of medically unnecessary laboratory or radiologic tests, prescriptions, specialist referrals, invasive procedures, and hospital admissions. Also included would be the avoidance of high-risk procedures or even the avoidance of high-risk patients.

Alan Woodward, M.D., vice chair of the Medical Society’s Committee on Professional Liability and a past president of the organization, said “Physicians practice defensive medicine because they don’t trust the medical liability system. This survey should provide a strong impetus for legislative, business, and health care industry initiatives promoting fundamental liability reform. Reducing defensive medicine in Massachusetts could dramatically reduce costs and at the same time improve patient safety, access to care, and quality of care.”

**Reduces access and unsafe for patients** Dr. Woodward added that defensive medicine is not only costly but also reduces patient access to care and may be unsafe for patients. Because of the malpractice environment, many specialists have closed their practices, stopped performing high-risk procedures, or reduced their care of high-risk patients. As a result, many smaller communities have little or no access to medical specialists.

The survey found that 38 percent of responding physicians reported they reduced the number of high-risk services they performed, with orthopedic surgeons (55%), obstetrician/gynecologists (54%), and general surgeons (48%) reporting the highest frequencies. Additionally, 28 percent of physicians in the sample reported reducing the number of high-risk patients they saw, with obstetrician/gynecologists (44%) and the surgical specialties (37–42%) much more likely to reduce their number of high-risk patients.

Dr. Woodward said that safety issues arising from defensive medicine procedures may include the following: patients exposed to unnecessary imaging tests face the risks of radiation exposure and possible severe allergic reactions to contrast dye, and many surgical procedures like Caesarean sections have increased as a result of liability concerns.

**Fear of lawsuits supported by other studies** Reduced access to care because of the fear of liability has been supported by separate studies undertaken by the Medical Society. In its annual Physician Workforce Study over the last five years, the Society has found that an average of 44%-48% of physicians in the state reported that they are altering or limiting their practices because of the fear of being sued.

The most recent workforce study in 2008 found that more than half of physicians in seven specialties (six of which were surveyed in the defensive medicine study) said they have altered or limited their practice because of the fear of being sued: neurosurgery (76%), urology (75%), emergency medicine (66%), obstetrics/gynecology (57%), family medicine (53%), general surgery (51%), and orthopedics (51%).
A call for fundamental change “This survey further demonstrates the negative impact of the current dysfunctional liability system on health care and the need for fundamental reform,” said Dr. Woodward. He said lawsuits through the current system, with their adversarial nature, overhead inefficiencies, and years of litigation, should be used only as a last resort. “The best approach,” he said, “is for fundamental transformation to a new model, such as the one proposed by The Joint Commission, which urges investing in a baseline culture of safety at every healthcare enterprise; full disclosure to patients about adverse events, and for avoidable injuries, sincere apology with an offer for timely and fair compensation; and mediation and arbitration to resolve disputes.”

Dr. Woodward said that kind of reform will improve patient safety; compensate more patients more equitably and efficiently; foster open communication, transparency, and healing; build trust; and reduce the practice of defensive medicine.

The report on the Investigation of Defensive Medicine in Massachusetts may be found online at www.massmed.org/defensivemedicine.

Major Findings
Investigation of Defensive Medicine in Massachusetts

The Massachusetts Medical Society’s survey of eight physician specialties examined seven areas of practice in four categories, as well as physician attitudes toward liability. Results were self-reported by responding physicians. Percentages below indicate averages in those categories.

Radiological Imaging

Plain Film X-Rays: An average of 22% of X-rays were ordered for defensive reasons. No statistical difference existed among the various specialties.

CT Scans: An average of 28% of CT scans were motivated by liability concerns, with major differences among specialties. About 33% of scans ordered by obstetricians/gynecologists, emergency physicians, and family practitioners were done for defensive reasons. Neurosurgeons and orthopedic surgeons were at 20%.

MRI Studies: An average of 27% of MRIs were ordered for defensive reasons, with significant differences by specialty. The highest rates were reported by obstetricians/gynecologists, general surgeons, and family practitioners, with the lowest rates by neurosurgeons and emergency physicians.

Ultrasound Studies: An average of 24% of Ultrasounds were ordered for defensive reasons. Orthopedic surgeons (33%) and obstetricians/gynecologists (28%) reported the highest rates, with neurosurgeons (6%) and anesthesiologists (9%) the lowest.

Laboratory Testing

An average of 18% of laboratory tests were ordered for defensive reasons, with emergency physicians (25%) reporting the highest rates and neurosurgeons (7%) the lowest.

Specialty Referrals and Consultations

An average of 28% of specialty referrals and consultations were motivated by liability concerns, with significant differences by specialty. Obstetricians/gynecologists reported that 40% of their referrals and consultations were done for defensive reasons, and anesthesiologists and family practitioners said that 33% of their referrals and consultations were done for the same reasons.

Hospital Admissions
An average of 13% of hospital admissions were motivated by liability concerns, with surgical specialties reporting lower rates than the other specialties.

**Additional findings**

- 38% of physicians in the sample reported that they reduced the number of high-risk services or procedures they performed, most pronounced among orthopedic surgeons (55%), obstetrician/gynecologists (54%), and general surgeons (48%).
- 28% of physicians in the sample reported reducing the number of high-risk patients they saw, with obstetrician/gynecologists (44%) and the surgical specialties (37–42%) much more likely to reduce their number of high-risk patients.
- 28% of physicians in the sample said that liability concerns affected the care they provided “a lot,” with emergency physicians (38%) and obstetrician/gynecologists (35%) most likely to endorse this response.
- 48% of physicians in the sample said that they were “very concerned” about the impact of a lawsuit on their practice, with 72% of neurosurgeons providing this response.

**About the Massachusetts Medical Society** The Massachusetts Medical Society, with more than 20,000 physicians and student members, is dedicated to educating and advocating for the patients and physicians of Massachusetts. The Society publishes the New England Journal of Medicine, a leading global medical journal and web site, and Journal Watch alerts and newsletters covering 12 specialties. The Society is also a leader in continuing medical education for health care professionals throughout Massachusetts, conducting a variety of medical education programs for physicians and health care professionals. Founded in 1781, MMS is the oldest continuously operating medical society in the country. For more information, visit www.massmed.org, www.nejm.org, or www.jwatch.org.

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