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Medical Practice Driven by Fear of Legal Liability -Is Europe Catching the American Ailment?

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An infection is spreading across Europe, exported from the shores of our transatlantic of doubt and apprehension. In the United States, litigation as a result of medical malpractice is now akin to the common cold in its ubiquity. Just like the common cold, preventative measures offer some hope of avoiding this deeply unpleasant experience, but may often be the cause of further complaint.

In 1960, in the United States, only one in seven physicians was sued throughout his or her entire career. Today, one in seven physicians is sued every year. In the last three decades, the median indemnification in the United States for medical malpractice lawsuits has reached \$1 million, with the average award being \$4 million. American juries in medical malpractice cases occasionally award payments of up to \$50 million.

In addition, legal costs to defend these claims average in excess of \$50,000 for those that are settled and \$113,000 for those that are resolved at trial. In concert with the increase in dollars paid out by medical malpractice insurance companies, the average cost of malpractice insurance premiums paid by physicians in the US has risen significantly. In many American States, premiums for medical malpractice insurance for radiologists.

What is 'Defensive Medicine'?

The ubiquity in the US of medical malpractice litigation has resulted in a new type of medicine, called 'defensive medicine'. Defined as "the ordering of expensive tests and procedures that are not indicated medically, but the absence of which may render physicians vulnerable in a medical malpractice lawsuit", it refers to the ordering of tests and procedures that are of marginal or no medical benefit, primarily for the purpose of reducing medico-legal risk. Surveys have revealed that more than 90% of American physicians admit engaging in defensive medicine, at an annual cost to the US estimated to be as high as \$126 billion.

Medical malpractice litigation and its associated defensive medicine have now invaded the European community. "We find systematic evidence of defensive medicine - medical practice based on fear of legal liability rather than on patients' best interests," recently observed The Lancet. Similar sentiments were expressed by the Editor of the Journal of Irish Medicine: "In US medicine, it is being increasingly stated that the clinical exam on its own is insufficient, because it cannot hold up in court. Consultation needs to be supported by objective and often expensive tests. Irish medicine is heading down the same road."

Over-Reading Exams

Defensive medicine by non-radiologic physicians is manifested by their ordering unnecessary imaging exams, most commonly CT, mammography and sonography. One recently published study of trauma cases disclosed that CT exams of the head, cervical spine, abdomen, and pelvis were ordered by emergency department physicians just as frequently in patients who sustained obvious minor injuries as those who sustained clinically obvious major injuries.

Defensive medicine practiced by radiologists is manifested by over-reading radiologic studies and by suggesting unnecessary follow-up studies and/or interventional procedures. One example of radiologic defensive medicine is the over-reading of mammograms. In the US, the recall rate among radiologists interpreting mammography averages more than 14%, twice that of the recall rate in the UK, with no difference in degree of cancer detection. Interestingly, the over-reading of radiologic studies and the performance of unnecessary biopsies and other invasive

procedures appears to be welcomed by the American public. A recent survey of women undergoing mammography revealed that 97% would continue future mammography despite false-positive recalls, and 82% would be willing to undergo a biopsy so as to increase the chance of earlier cancer detection.

The prevalence of defensive medicine in the US has been summed up quite realistically by the CEO of a medical malpractice insurance company: "The real guidelines physicians follow are ones judged to be the standard of care by jurors in medical liability trials. Medical standards have migrated to legal standards. A trial lawyer can always make the case for why you should have gotten additional data. I have not heard of a lawsuit because of over-testing."

'Failure to Diagnose' Causes Most Litigation

Data accumulated by medical malpractice insurance Companies in the US reveal that the most prevalent and expensive cause of medical malpractice claims is errors in diagnosis. More specifically, the allegation of "failure to diagnose" is the number-one allegation in medical liability lawsuits in the US, accounting for more than one third of all lawsuits. Because delaying or missing a correct diagnosis in the patient quite frequently involves an incorrect interpretation of an imaging study, radiologists are frequent defendants in such cases.

Radiologic literature is replete with articles quantifying and analysing radiologic errors. Numerous studies dating back to the 1950s and continuing through the present have revealed that there is an approximate 30% error rate among radiologists. It has been repeatedly shown that radiologists who are presented with a "stack" of abnormal radiologic examinations will consistently "miss" the abnormality in 30% of the cases. This is true for chest, bone, and GI radiographs, as well as CTs, MRs, sonograms, and mammography.

Of course, in the everyday practice of radiology, studies harbouring significant pathology represent a relatively small percentage of examinations interpreted by radiologists. Thus, the true error rate depends on what denominator is utilised; i.e., if a radiologist is presented with ten abnormal studies, and makes an erroneous diagnosis in three of them, the error rate will be calculated as 30%. On the other hand, if the same ten abnormal studies are intermingled with 90 normal studies, and the radiologist makes the same three erroneous diagnoses, the error rate will then be calculated as 3%.

Interestingly, several recently published articles containing performance improvement data of radiologists have revealed that the average error rate of radiologists falls in the three to five percent range. It is also of interest to point out that once a carcinoma is observed on a chest film or in a mammogram, it can be seen in retrospect in up to 90% of chest radiographs and 75% of mammograms obtained earlier and initially interpreted as normal by the radiologist.

Least non-radiologic physicians believe that only radiologists commit errors, the medical literature has reported that experienced faculty observers commit errors in their assessment of 32% of physician examination skills. One study documented a 44% miss rate among good clinicians of abdominal ascites by clinical examination. Reviews of autopsies have shown that the error rate among specific diagnostic categories is approximately.

Reducing Error Rates

How can radiologists reduce the likelihood of their committing an error? To begin with, clinical information is important in improving accuracy, as is comparison with previous studies. The interpreting radiologist should be apprised of all previous studies and interpretations, but should not become biased or attach greater weight to them than with other clinical information. Radiologists should always ask, "Is there any diagnosis other than the one I or my predecessor has made that can explain the findings?" In addition, if the radiologist has an opportunity to review a radiologic examination, previously read as normal a second time with a consulting physician or a colleague, the radiologist should do so, for it is very possible that with a second look, an earlier error will be discovered and can be corrected before causing injury to the patient.

Will Computed Assisted Detection (CAD) reduce the error rate? A number of studies over the past several years have shown that CAD does increase the sensitivity of mammograms and chest radiographs among moderately experienced radiologists, but is of questionable value among highly-experienced radiologists. In some studies, CAD has been shown to increase breast cancer detection in mammography but its ultimate value is yet to be determined. The error rate in radiology has not changed significantly in the past five decades. Whether computers, with their omnipresence in CAD, digital radiography, and PACS, will eventually reduce radiologic error rates remains to be seen.

In the Next Issue:

Part 2: 'Failure to Communicate'

Whereas failure to diagnose is the commonest cause of medical malpractice litigation involving radiologists, failure to communicate is a close second. It is a causative factor, if not the primary one, in 80% of medical malpractice lawsuits. Part 2 of this series delves into this potential landmine.🔗

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