HealthManagement
Promoting Management and Leadership

Volume 10 - Issue 4, 2010 - Cover Story

Who Should Perform Cardiac Imaging?

Diagnostic imaging has come to play a central role in the management of cardiovascular diseases, and radiologists have been responsible for the development and validation of clinical applications in the field. The recent explosion of medical imaging procedures has once again focused attention on the general issue of self-referral in cardiology. Several studies have demonstrated that diagnostic imaging services are rendered with greater frequency and at greater cost when performed by cardiologists using ultrasound equipment in their offices. In fact, data suggests that the bulk of the increased use of imaging has been attributable to physicians who self-refer.

Concerns for Over-Referral of Cardiac Imaging Studies

Moreover, cardiologists have gained some expertise within the imaging procedures particular to their specialty. Therefore radiologists and cardiac surgeons are sometimes uncomfortable with the incentives inherent in self-referral. Insurers and clients are concerned with the appropriateness of their services. It is notable that cardiologists have tripled their billings for imaging services since 2000. In this paradigm, the utilisation of imaging modalities becomes dependent on the presence of the equipment at the location where the patient is admitted.

For essential and routine clinical questions such as the status of myocardial perfusion, there are more than five different modalities (including US, CT, MRI, SPECT and PET) to choose from, each of which can provide an answer. These modalities have a largely different diagnostic performance and costs vary considerably. There is ample evidence in existence as to which of these modalities could provide the best and safest procedure to answer the clinical question, but since the diagnostic pathway is paved by self-referral, these recommended techniques are almost not in use.

Integral Knowledge Necessary for Cost Containment

This is just one example that amply demonstrates the principle that an integral knowledge of all the available imaging modalities and their technical background is necessary to guide the clinical problem through the right diagnostic algorithm for the optimal and most cost-effective answer. To achieve such expertise takes specialty training in diagnostic imaging of many years, which should also take into account the imaging procedures of the pulmonary circulation and great vessels.

Furthermore, the radiation safety and dose application to a patient-individualised level is a substantial part of the training and the work of the radiologists. It is remarkable that radiation over-exposure is reported most commonly in the field of cardiac imaging when such examinations are performed by cardiologists.

In summary, each of these worrying developments stress the need for a medical specialty in imaging and diagnosis that takes into account all of the existing and newly developed imaging modalities in optimal diagnostic algorithms, augmented by a fundamental training in the technical backgrounds of the modalities and their safe application in morphology and function without any chance for self-referral: a training for which radiologists are ideally suited.

Published on : Wed, 15 Dec 2010