

The American College of Radiology Strategy for Managing Incidental Findings on Abdominal Computed Tomography

Lincoln L. Berland, MD

KEYWORDS

- Computed tomography • Incidental findings • Committee
- Recommendations

BACKGROUND: NEED FOR INCIDENTAL FINDINGS PROJECT

Incidental findings on radiographic studies have been available since the origin of diagnostic radiology. The discovery of such findings was often accepted as simply an unwanted, but unavoidable, byproduct of an important test. With the advent of cross-sectional imaging, the discovery of such findings became more frequent, and their recognition was usually believed to be beneficial by leading to early detection of subclinical disease, and probably to better outcomes.^{1–3} However, in recent years, incidentalomas have generated heightened concern and even alarm.^{4,5}

It is important to understand the meaning of the term incidental finding. An incidentaloma, as it is also known, may be defined as “An incidentally discovered mass or lesion, detected by CT, MRI, or other imaging modality performed for an unrelated reason.”⁶ Essentially, these masses or lesions represent findings that are detected but are unrelated to the primary objectives of the examinations.^{7–10} However, many such incidental findings are of little importance because they are immediately recognized as unrelated to any condition that would threaten the patient’s health. For example, an anomalous retroaortic left renal vein is

a common anatomic variant. Many patients have findings indicating prior surgery or trauma but are unlikely to have any acute clinical significance. Although these findings may warrant reporting because they could affect future surgical planning or potentially be mistaken for more important abnormalities, they are not the subject of the remainder of this discussion.

There are several reasons why incidentalomas have evolved from a perceived advantage to a perceived problem. The frequency of incidental findings has markedly increased. The number of computed tomographic (CT) examinations performed in the United States skyrocketed from an estimated 21 million in 1998 to 61 million in 2006, which resulted in several factors, including self-referral by nonradiologists. As has been shown by several studies, nonradiologists tend to refer their patients for more radiographic tests when they have a direct or indirect financial interest in the revenue from the sites to which they refer.¹¹

Another cost concern is that some radiologists see the identification of incidentalomas as an opportunity to increase referral business for CT, magnetic resonance (MR) imaging, or other expensive radiological tests, providing financial benefit in a fee-for-service environment that incentivizes increased workload.^{12,13}

Department of Radiology, University of Alabama at Birmingham, 619 South 19th Street, N348, Birmingham, AL 35249, USA

E-mail address: lberland@gmail.com

Radiol Clin N Am 49 (2011) 237–243

doi:10.1016/j.rcl.2010.10.003

0033-8389/11/\$ – see front matter © 2011 Elsevier Inc. All rights reserved.

Another reason for the increased frequency of incidental findings is that the spatial and contrast resolution of CT has improved substantially over the past 10 to 15 years. Therefore, incidental findings may be more likely to be observed on any single examination as well because many more CT scans are being performed. There has also been a markedly increased awareness of the costs of medical care, which has been associated with heightened political pressure to limit these costs. The increase in the use of CT itself has led to CT becoming a target of regulators and insurers. For example, in many regions, health insurers have implemented preauthorization for CT, MR imaging, and other expensive medical tests. Depending on the location and the insurer, this practice has measurably limited the approval for CT examinations, causing the use of this technique to decline or at least level off in number.¹⁴ Nevertheless, this leveling off is still occurring at a rate higher than just 10 years ago.

The concern about incidental findings has also gradually increased because of support by many for using CT for screening for conditions such as lung cancer and colon polyps. For example, CT colonography has raised the concern among insurers and the federal government that its use, and therefore costs, will increase. The Center for Medicare and Medicaid Services, in a decision memorandum, indicated that one of the reasons that they were declining to approve CT colonography for screening for colon polyps in the Medicare population was the concern that the pursuit of extracolonic findings would substantially increase cost with uncertain benefits.¹⁵

Because of the paucity of data regarding the importance of reporting and following up incidental findings and the paucity of guidance for managing such findings, there is marked inconsistency in the approach to such findings. One of the few studies in which the performance of multiple experienced radiologists was tested regarding the reporting of incidental findings suggested only modest agreement.¹⁶ There were substantial disagreements in this blinded study regarding both the detection of these findings and the beliefs regarding their need to be further evaluated. In addition, anecdotally, many primary care physicians and other clinicians have found that pursuing incidental findings has come to occupy more of their time and has distracted them from attending to activities that could provide greater benefits. Also, determining how to manage such findings can be confusing for referring physicians unless specific guidance is offered by the interpreting physician.

The fear of medicolegal consequences from underreporting incidental findings has been cited

as an important source of requests for evaluating or following them. Because of the uncertainty about the importance of many of such findings, performing extra tests follows a philosophy of “better safe than sorry.” In addition, reinforcing this perception is a prevalent belief within the medical culture itself, particularly within the United States, that medical uncertainty is unacceptable, especially because now there are more sophisticated tests to decrease that uncertainty.^{17,18} However, with the limited information currently available and the great array of diagnostic possibilities, it is virtually impossible to calculate the probability that a given finding (eg, a mildly increased attenuation 2-cm liver lesion on a non-contrast CT examination) is likely to represent the early manifestation of a disease for which early intervention could improve the outcome.

The level of experience of readers as well as their philosophy is also likely to influence the nature and frequency of recommendations of the physician interpreting the CT study for additional studies, although the nature and magnitude of this effect is unclear. It is a common experience among academic body-imaging radiologists to encounter an excessive number of recommendations for further studies from radiology residents, who understandably do not have the experience to conclusively characterize incidental findings or appreciate their importance (or lack thereof). At the other end of the spectrum, highly experienced academic subspecialists in tertiary referral centers have often encountered cases in which initially subtle findings led to serious medical consequences. These findings heighten their concern and perhaps even falsely elevate their perception of the probability that an incidental finding encountered in a similar situation may be important. Again, although these effects of such differences in experience are unclear, it is highly probable that the level of experience of the interpreter plays a substantial role in the approach that radiologists take to how they report and make recommendations for managing incidentalomas.

COSTS AND CONSEQUENCES OF MANAGING INCIDENTAL FINDINGS

Supporting all these concerns are anecdotal observations and some retrospective and prospective studies on the benefits and costs of working up or following incidental findings. Among the largest populations of patients who have been studied for incidental findings are patients undergoing CT colonography for screening, for failed colonoscopy, or for symptoms or other medical findings suspicious for colonic disease.^{7,10} There

Download English Version:

<https://daneshyari.com/en/article/4247661>

Download Persian Version:

<https://daneshyari.com/article/4247661>

[Daneshyari.com](https://daneshyari.com)