



Patients, Policy and Practice Improvements

Curbside consults: Practices, pitfalls and legal issues

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ABSTRACT

Objective: “Curbside consults” are informal opinions provided by one physician to another. In radiology, it often refers to opinions rendered on imaging performed at outside facilities and has evolved from being a targeted response to a discrete clinical question to a complete over-read in recent years. Given that the consults are usually sought for patients with complex conditions, the potential for error increases with informal reads, often due to the time constraint and lack of adequate information. Misinterpretations and inaccurate documentation by the referring clinician are also more likely. This study assesses the policies and views on curbside consults at academic centers in the United States.

Materials and methods: An online survey (via SurveyMonkey.com) was circulated to the 319 active radiologist members of the Association of Program Directors. There were 80 responses, representing a 25% response rate.

Results: While most facilities provided second reads (92%), only a few (23%) provided written reports and read the case entirely. The majority (77%) tailored their read to answer specific clinical questions. Approximately two-thirds did not require the outside radiologist's report to be available before their interpretation. Seventy-nine percent were at least mildly concerned about liability. Up to 45% billed for the study; 39% were not aware of the billing practice.

Conclusion: Curbside consults are widely provided at U.S. academic institutions with only a minority documenting their opinions. The majority are concerned about the legal implications and this paper puts forth recommendations to minimize the potential for errors in patient care and decrease liability.

1. Introduction

Curbside consults, sometimes referred to as “curbstone consults” or “wet reads”, are informal opinions rendered by physicians to their colleagues, to aid in patient care. Most academic practices have a longstanding tradition of providing these “courtesy” consults, which are not only appreciated but expected. The process is typically a brief informal chat between colleagues, often about a very specific question.

In radiology, curbside consults have evolved over the years from a radiologist being asked to take a “quick look” at an image by a non-radiologist colleague, to in some cases providing an expert subspecialty formal ‘second’ opinion on a study acquired at an outside hospital. Often clinicians present a disk from an outside facility; while second-opinions or consults can be beneficial to patients by avoiding repeat imaging, which entails additional cost, radiation and time, such curbsiding comes with its own risks as they do not occur under ideal circumstances. Time constraints are a major concern, with the consult generally interrupting routine workflow. If curbside consults are not compensated, some radiologists may unfortunately review the consult

more expeditiously than those that impact his/her income or relative value units (RVUs). The urgent, targeted question may also make the radiologist discard their routine search patterns, increasing the risk of error. Clinical history may also be unavailable, incomplete, or inaccurate as the clinician often walks into the reading room even before he has seen the patient. The study may be incomplete or inaccurately performed (such as a CT with contrast instead of a CT angiogram) to address the specific concern.

Adding complexity to the issue is the legal significance of accurate documentation. Misinterpretations by the documenting clinician can create a potential liability for the curbsiding radiologist. Brus-Kramer et al. conducted a study to assess if information from diagnostic imaging is altered by person-to-person communication and/or faulty recall [1]. They found a discrepancy between the recalled results and the final official interpretation in 15% of patients, with implications in patient management.

The topic of curbside consults has been debated since the 1990s, without a general consensus or guideline [2–4]. Opinions regarding the method and sufficiency of information conveyed in curbside consults

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Table 1

Survey questions with responses in percentage. 80 responses were obtained from 319 members of the APDR.

Survey questions	Percentage
1. Does your institution offer informal reads on studies performed at outside institutions?	92.5
• Yes	7.5
• No	
2. How do you provide the reads?	
• Verbal/informal	18.9
• Written/documented	22.7
• At tumor boards or other interdisciplinary conferences	3.8
• All of the above	54.4
3. How do you read the studies?	
• Only after it is uploaded into PACS	48.1
• Film/CD	1.3
• Either	50.6
4. Do you require the primary interpretation to be available before interpretation?	36.7
• Yes	63.3
• No	
5. How do you interpret the study?	
• Read the study de novo	22.7
• Answer only a specific question	6.3
• Either, depending on the clinician's request	70.9
6. Do you always look at priors if available?	
• Always	82.5
• Never	0.0
• Sometimes	17.5
7. How does your facility bill for the second read if it is a written documented read?	16.3
• Not applicable as we do not provide written reads	15.0
• At the same rate as primary interpretation	30.0
• At a reduced rate	38.7
• Do not know	
8. Does your malpractice insurer have a clause against curbside reads?	2.5
• Yes	18.7
• No	78.7
• Do not know	
9. Do you know if the referring clinician documents your name in the medical record?	6.3
• Always know/find out	45.0
• Never know	48.7
• Sometimes know	
10. How concerned are you about liability from curbside consults?	
• Not concerned	21.3
• Mildly concerned	32.5
• Moderately concerned	21.3
• Very concerned	25.0
• Keeps me up at night	0.0

vary amongst primary care physicians and specialists. A study by Kuo et al. found that specialists often feel that important clinical details cannot be adequately described verbally and that primary care physicians were less likely to follow up on recommendations after undocumented curbside consults [4]. While it is generally agreed that curbside consults are important in maintaining a positive relationship with clinicians, questions remain about the prevalence of the practice, the burden of curbside consults in academic radiology and the legal implications of opinions rendered. This study was undertaken to evaluate current policies and opinions regarding secondary reads, an important form of curbside consult, at U.S. academic institutions.

2. Materials/methods

An online survey was circulated (via [SurveyMonkey.com](https://www.surveymonkey.com); Portland, OR) to the 319 active radiologist members of the Association of Program Directors in Radiology (“APDR”). The survey listed ten questions with the aim to evaluate the policies and views of how curbside consults are handled at academic institutions in the United States [Table 1]. The APDR was selected as its membership is representative of

academic radiologists; academic radiologists are more likely to be subspecialists or at tertiary facilities, and thus hypothetically more likely to receive requests for secondary review of outside imaging. Two reminder emails were sent at 2 weeks and 1 month respectively, following the initial contact. The survey was closed after seven weeks. The response rate was approximately 25%. Question formats varied, including Yes/No questions as well as Likert-style questions on a scale of 1–5.

3. Results

The majority (92%) of respondents indicated their institutions offered curbside consults/wet reads on studies performed at outside institutions. A minority (23%) reported they routinely issued written reports on such consults, with another 19% solely providing verbal reads, while the majority (54%) provided consults verbally, via tumor board, or a mixture thereof. Surprisingly, less than half (48%) of the respondents indicated they required outside imaging to be uploaded to their own institution's PACS before providing a wet read. Also, approximately two-thirds (63%) indicated that they did not require the outside institution radiologist's report to be available at the time of the curbside consult. Only 23% of respondents indicated that the entire imaging study would routinely be read de novo, while most (71%) indicated their consultation would be tailored based on the clinician's specific inquiry. The majority (82%) of respondents indicated they always look at prior imaging when available.

Only 6% of respondents routinely follow-up to see if the consulting clinician documents the radiologist's name and findings in the medical record following a curbside consult, while 45% concede they never know if such documentation occurs and the remainder only occasionally following up. Most radiologists (79%) are at least mildly concerned regarding the potential for liability stemming from curbside consults, with 25% indicating they are “very concerned”.

Nearly half (45%) the respondents indicated that their institutions billed for written reports on outside reads in some fashion, while 39% were not aware of whether such consultations were being billed, and 16% indicated that it was not applicable as they did not provide written reads. The majority (79%) of respondents were unaware if their malpractice insurance carrier prohibited wet reads.

4. Discussion

The survey results reveal there is a wide variety in the way academic institutions deal with curbside consults. Some facilities provide true informal “wet reads” to answer specific targeted clinician questions, others as a form of participation at tumor boards, while a minority re-interpret studies de novo and enter a report into the medical record, often for a fee. Clearly, there is value for the treating clinician to be able to consult his radiology colleague, and studies have suggested that there may be significant clinical value in obtaining a re-interpretation, with as much as a 12–28% discrepancy rate between first and second interpretations [5,6].

4.1. Liability concerns

This survey showed that the clear majority of radiologists are at least somewhat concerned by liability risks of curbside consults, and that the concern appears to be well grounded. First, there is a risk of under-reporting. A radiologist is unlikely to convey all findings verbally during a curbside consult. For example, when assuring a clinician that there is no free air under the diaphragm, a radiologist may not make much of the pulmonary nodule partially visualized at the lung base, or may just mention it in passing.

Second is the very real risk of miscommunication. Often the consulting clinician will document his/her ‘understanding’ of what the radiologist told him into the medical record, which may or may not be a

complete or accurate representation. [7] In cases where the only documentation available is that of the consulting clinician and the radiologist does not enter his/her contemporaneous report, a future jury will be forced to believe that documentation accurately reflected the substance of the communication [8]. Even if this entry in the record is not completely false, any “hedging”, nuance or caveats that a radiologist may typically want to include in his/her report will not be incorporated.

Thirdly, whenever there is outside imaging, there is typically an outside radiologist's report. Although the Emergency Medical Treatment and Active Labor Act (EMTALA) dictates that any test and its results should be transferred with the patient, which thereby includes both a CT scan *and* its interpretation, an outside interpretation of a CT report is present in only approximately 16–36% of previously published studies [5,6,9].

Finally, the outside radiologist may have had access to better history, prior comparison studies, and additional images such as thin slices and reformats that were not ultimately transferred with the patient. Thus, the potential for discrepancy is very real and can be consequential for both acute findings as well as for chronic imaging findings needing follow up. Liability in these cases could exist for both the primary as well as the secondary interpreter depending on who is right, and neither may be aware of any error, until it arrives in the form of a lawsuit. Where a board certified/eligible radiologist has already weighed in on imaging and given a differing opinion, he or she would become a ready-made expert in a suit against the other radiologist, should a case arise.

4.2. The physician-patient relationship

For liability to arise, the key issue is whether the radiologist providing the consult creates, or is acting under an existing “physician – patient relationship”. Berlin highlights a few real life examples of curbside consultations and whether such a consult creates a physician-patient relationship [8]. In simple terms, a physician-patient relationship arises where a physician enters into a care-giving role for a patient and advises, refers, consults on or otherwise treats a patient and contributes toward that patient's health care [10]. If there is a physician-patient relationship, the radiologist has a duty to act with reasonable and ordinary skill and care. Courts often give the benefit of doubt to the injured party whenever possible, and the burden would be on the defendant radiologist to show that the consult was provided purely in terms of a hypothetical situation and that no physician-patient relationship had developed. In general, most courts find a physician-patient relationship to exist when the relationship is continuous and substantial rather than fleeting and informal; when there is a pre-existing contractual relationship between the patient and the radiologist or his employer hospital, or when there was foreseeable reliance on the consult, i.e. did the radiologist foresee that the consulting clinician would rely on the wet read [8]. While informal questioning of a non-radiologist colleague probably does not create a patient-radiologist relationship per se, once a radiologist starts reviewing old studies, the chart, or gives specialized advice, the risk of liability increases. In the academic radiology setting, it would be rare that a radiologist would review imaging of a patient who was not a patient of his employer hospital. He would typically expect his clinician colleague to foreseeably rely on his advice, and as indicated in our survey, most radiologists (82%) would review whatever outside imaging was available. So, except in rare cases, in the academic setting, the physician-patient relationship requirement would invariably be met.

Block et al. in a letter to the editor published in JAMA in 1999 described that certain malpractice insurers prohibit physicians from offering curbside consults [11]. While this does not appear to be a widely held approach of insurance carriers, interestingly 2% of respondents in this survey expressed awareness of such a clause. It is therefore prudent for radiologists to review their current policies before undertaking curbside consultations.

4.3. The move to bill for secondary reads

Curbside consults have truly evolved. Two decades ago, they were simple pointed/confirmatory questions from clinicians to radiologists. Even between physicians of different specialties, questions were relatively specific. Nowadays, the line between quick curbside consults and complete reinterpretation of imaging has blurred, with the consulting clinicians expecting that every finding, emergent or non-emergent, should be conveyed to them.

In light of the fact that there is inherent cost and liability in offering such a service, many institutions have sought compensation for such services [12]. In our survey, 45% of respondents indicated their institutions billed for secondary reads in some fashion. To bill for outside reads, several coding modifiers are implicated. A 26 modifier must be added to identify that only the professional fees are charged (as the technical costs were already incurred at the outside institution acquiring the imaging), and a 77 modifier is needed to indicate that the re-interpretation is necessary for medical management [13]. Less than 1% of CT interpretations billed to Medicare are for secondary interpretation. In 2012, the denial rate for reinterpretation was close to 7%, comparable to the 5.4% rate for primary interpretation [14].

4.4. Our approach

We recently enacted a formal policy for providing secondary reads for outside imaging. The treating physician can designate outside imaging to be uploaded for secondary review, which is required before a radiology report or consult will be provided. The images are uploaded by a film librarian into the PACS system, from either a disc or a remote imaging service such as Life Image. Typically, these cases are the more complex cases from outside institutions, necessitating patient transfer. The radiologist will thereafter be willing to provide a verbal review of these uploaded images and will always *subsequently* issue a formal written report. The report will document that the secondary read was requested by the requesting clinician out of medical necessity to aid in treatment. We bill the patient for a professional fee component for performing such secondary reads. No technical fee is billed, as the imaging itself was performed at the outside institution. Whenever available, the prior outside radiologist's report is consulted. We verbally convey the discordant results so that the treating physician is aware of the change in interpretation as it might necessitate a change in management. This is akin to conveying critical positive or unexpected results. The secondary read is thereafter documented in writing. Concordant findings and incidentals generally are contained in the written report. Errors unfortunately occur in medicine and concerns of liability, either for the primary or the secondary interpreter, should not deter second reads. Only studies which are less than 30 days old are eligible for secondary reads, to ensure relevance of the report. When there is a more recent similar study performed at our institution, we decline to reinterpret the older study, but provide an addendum comparing it to the older study, where applicable. Overall, the system works well; however, the frequent unavailability of prior reports puts the secondary reader in a precarious position of not always knowing if they are taking a conflicting position with another radiologist, a stance which can have legal implications. Of note, we offer secondary reads only for patients who are under the care of a physician at the radiologist's institution. This service is being offered to augment patient care and is not a litigation preparatory service; that is, an individual or representative of an injured party cannot directly request a second opinion from our facility for purposes of litigation.

4.5. ACR view and the need for documentation

Although not prohibiting curbside consults, the ACR acknowledges the inherent risk, and recommends independent documentation. “Informal communications carry inherent risk, and frequently the

referring clinician's documentation of the informal consultation may be the only written record of the communication. Interpreting physicians who provide consultations of this nature in the spirit of improving patient care are encouraged to document these interpretations. A system for reporting outside studies is encouraged”.

5. Conclusion

Curbside consults and second opinions have long been a part of the medical landscape, and provide a component of savings, convenience and interdepartmental collegiality that generally is beneficial for patients and healthcare. Thus, some form of secondary reads should be available from radiologists, but in a format that does not open the door to extensive liability risk.

Documentation is important for a radiologist's protection. Prior to rendering a curbside consult, a radiologist should ideally ask for a formal consult and provide a written report. The radiologist should make clear that his/her interpretations are subject to change if additional imaging or information becomes available. The radiologist should keep a record of his/her opinions and check the patient's chart later for accuracy, particularly when only a verbal report has been provided. However, we acknowledge that the ease or ability to perform such follow-up is going to be variable at different institutions. Whenever a report is provided, the radiologist should emphasize any limitations of outside protocols or reformatting that limits evaluation. For example, if thin section imaging is not provided, that information should be documented as it may legitimately explain why the secondary reader did not make a finding.

Institutions, if they do decide to allow such curbside consultation, should develop robust policies regarding curbside consults. Ideally these policies should (a) require accessibility to prior reports; (b) require images to be uploaded onto the local PACS where they can be optimally manipulated, rather than relying on outside disks or software with which the re-interpreting radiologist is not familiar; (c) establish a system for official documentation to minimize the potential for errors in inter-physician communication; (d) ensure that insurance carriers allow such secondary reads; and (e) endeavor to formalize the system into that of a consultation, including billing for the professional fee component.

IRB approval

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Declaration of Competing Interest

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References

- [1] Brus-Ramer M, Yerubandi V, Newhouse JH. Management-changing errors in the recall of radiologic results - a pilot study. *Clin Radiol* 2012;67(6):574–8.
- [2] Manian FA. Curbside consultations. A closer look at a common practice. *JAMA*. 275 (2): 145–7.
- [3] Keating NL. Physicians' experiences and beliefs regarding informal consultation. *JAMA*. 280 (10): 900–4.
- [4] Kuo D. Curbside consultation practices and attitudes among primary care physicians and medical subspecialists. *JAMA*. 280 (10): 905–9.
- [5] Onwubiko C, Mooney DP. The value of official reinterpretation of trauma computed tomography scans from referring hospitals. *J Pediatr Surg* 2016;51(3):486–9.
- [6] Sung JC. Outside CT imaging among emergency department transfer patients. *J Am Coll Radiol*. 6 (9): 626–32.
- [7] Won E. JOURNAL CLUB: informal consultations between radiologists and referring physicians, as identified through an electronic medical record search. *Am J Roentgenol* 1976;209(5):965–9.
- [8] Berlin L. Curbside consultations. *AJR Am J Roentgenol* 2002;178(6):1353–9.
- [9] Grogan MJ, Marn C. My PQI project—medical legal issues with outside trauma studies: are you opening yourself up to liability? *J Am Coll Radiol* 2011;8(8):528–9.
- [10] Holder AR. Creation of the physician-patient relationship. I. *JAMA*. 230 (2): 278–9.
- [11] Block MB. Curbside consultation and malpractice policies. *JAMA* 1999;281(10):899.
- [12] DiPiro PJ. Volume and impact of second-opinion consultations by radiologists at a tertiary care cancer center: data. *Acad Radiol*. 9 (12): 1430–3.
- [13] McNeeley MF, Gunn ML, Robinson JD. Transfer patient imaging: current status, review of the literature, and the Harborview experience. *J Am Coll Radiol* 2013;10(5):361–7.
- [14] Lu MT, Hallett TR, Hemingway J, Hughes DR, Hoffmann U, Duszak R. Secondary interpretation of CT examinations: frequency and payment in the Medicare fee-for-service population. *J Am Coll Radiol* 2016;13(9):1096–101.