Were My Diagnosis and Treatment Correct? No News is Not Necessarily Good News

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In a recent report, the American Medical Association (AMA) concluded, “we still know very little about patient safety in the ambulatory setting, and next to nothing about how to improve it.”¹ Research on patient safety has highlighted the prevalence of poor follow-up after patient-provider encounters. Suboptimal follow-up may be associated with adverse events and poor patient outcomes.²⁻⁵ Ensuring timely patient follow-up is essential when a diagnosis or treatment plan is uncertain, or when there is a specific need to closely monitor a patient’s condition. Additionally, when the initial diagnosis is incorrect or initial management misguided, prompt follow-up is often the only way the error can be recognized and corrected.^{2-4,6} Despite the importance of close follow-up, much remains to be done to improve the process of outpatient follow-up care.

In this issue of *JGIM*, Berner et al. explore the use of an automated interactive voice response (IVR) system to reach patients after acute care visits.⁷ Systematic approaches to patient follow-up have potential to address several preventable patient safety issues cited by the AMA report, including diagnostic errors and communication breakdowns. IVR-based outreach is an innovative tool that may play a role in developing feasible and cost-effective interventions to facilitate rigorous follow-up. In this editorial, we summarize several implications for current and future safety initiatives in the outpatient setting based on the results of Berner et al.’s study.

IMPLICATIONS FOR USING IVR-GATHERED FEEDBACK TO RECALIBRATE PHYSICIANS’ CONFIDENCE

In outpatient practice, physicians are often unaware of their patients’ ultimate outcomes. The fragmented nature of outpatient work can foster the general assumption that “no news is good news.” This myth may affect clinicians and patients alike; in fact, educational efforts are now underway to dispel this notion among patients (e.g., to prevent missed abnormal test results from being lost to follow-up).⁸ Meanwhile, little is being done to counter the prevalent assumption among clinicians that “the patient will call if not better or if something goes wrong.” In the absence of routine feedback about patient outcomes, the default assumption is often that the diagnosis and treatment recommendations were correct and that the patient is tolerating treatment and recovering from his or her illness. The study by Berner et al. casts doubt on this assumption. Specifically, the authors found that at least 15 % of patients in this study did not improve within a week of an acute care visit. Overall, only 38 % (21/55) of unimproved patients contacted any clinician during the follow-up period.

Currently, physicians receive very little, if any, feedback on the accuracy of their diagnoses or treatment. However, providing physicians with feedback about patient outcomes may be a meaningful intervention. We previously found that physicians’ confidence in their diagnoses was poorly associated with both the accuracy of the diagnosis and the difficulty of the case.⁹ Receiving routine feedback on patient outcomes could help physicians recalibrate their confidence in diagnostic and treatment decisions, especially in situations that are inherently more difficult or ambiguous. How best to gather or present such feedback is unclear. The study by Berner et al. proposes one strategy that can be leveraged to provide physicians with feedback to close the loop and, possibly, improve their performance.

IMPLICATIONS FOR PATIENT FOLLOW-UP

Berner et al.’s findings have implications for current follow-up practices, which in many settings are less than ideal.^{10,11} In a previous study of primary care visits associated with

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diagnostic error, we recorded whether the provider scheduled any future follow-up visit, and if so, in what time frame or context (e.g., routine or “next available” follow-up versus close follow-up within a week or a month of the visit). We hypothesized that follow-up practices might differ in situations involving diagnostic errors, on the assumption that errors tend to occur in situations with greater uncertainty. However, in comparing follow-up practices between visits with ($n=177$) and without diagnostic error ($n=820$), we found no differences in follow-up practices.¹² This suggests that close follow-up might be underutilized to mitigate harm in error-prone situations. However, as noted above, providers may not necessarily perceive clinical uncertainty or the need to initiate close monitoring in situations involving diagnostic errors. Thus, in addition to the use of follow-up interventions to improve feedback to physicians, routine implementation of rigorous follow-up practices in primary care might also prevent patient harm when diagnostic errors occur.

IMPLICATIONS FOR DIAGNOSTIC AND TREATMENT ERROR MEASUREMENT

Methods to identify, measure, and ultimately reduce diagnostic and treatment errors are few, and most institutions are not using those that exist.¹³ Efforts to promote error reporting by physicians have had little success, and therefore alternative methods for detecting and learning from errors must be explored. For example, our research group has begun to explore the use of “triggers,” or patterns in routinely collected administrative and clinical data, to identify potential diagnostic errors.¹⁴ Berner et al. present yet another way to identify potential diagnostic and treatment errors. Ultimately, reducing the frequency of untoward clinical events requires a multi-pronged approach, and the use of patient-reported outcomes will be an important new tool for monitoring patient safety.

IMPLICATIONS FOR USING SOCIOTECHNICAL APPROACHES TO NEW TECHNOLOGY

Interpretation of this study's results depends in part on one's attitudes toward the role of health information technology (HIT) within the healthcare delivery process. For instance, Berner et al. reported that just over half of the patients who received a call from the IVR system actually completed the calls. An HIT enthusiast may interpret the high rate of call termination as a sign that a significant proportion of patients were getting better and thus perceived no need to respond to the IVR system. An alternative explanation is that patients who hung up early had not improved, were already disap-

pointed by their care, and were not interested in interacting with an impersonal, technology-focused system when the benefit of doing so was uncertain.¹⁵ Although this intervention was designed to monitor health outcomes and to notify clinicians whenever something needed to be done, the success of such interventions depends in large part on how patients actually perceive the system and their participation.

Over the past several years, we have developed an eight-dimension socio-technical model that can be used to study HIT interventions.¹⁶ Several key dimensions of this model are relevant in the study by Berner et al. and should be addressed in future work. This includes issues with workflow and communication, as well as measurement and monitoring. Although the IVR system may have seemed a good fit from the healthcare system's point of view, it appeared that patients were not as satisfied with the IVR system as they were with human-initiated calls. Likewise, a sizable minority of the study physicians involved did not look at their reports, and only 63 % of physicians said they would like similar reports as part of their normal clinical routine.

Despite the clinical, logistical, and practical challenges to develop and sustain effective follow-up practices, Berner et al.'s study cautions us against complacency with the accuracy of our diagnoses and treatment recommendations. We encourage readers to evaluate the rigor and outcomes of follow-up practices within their own clinical settings. “No news is not necessarily good news” is good advice not only for patients, but also for physicians.

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