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Practice Management

Best Practices Research

James W. Mold, MD, MPH; Mark E. Gregory, MD

"Best practices research," described in this paper, refers to a systematic process used to identify, describe, combine, and disseminate effective and efficient clinical and/or management strategies developed and refined by practicing clinicians. It involves five steps: development of a conceptual model or series of steps, definition of "best" based on values and standards, identification and evaluation of potentially effective methods for each component or step, combination of most-effective methods, and testing of combined methods. The chronological development of this process is described with case examples, and the methodological steps are discussed.

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The tasks involved in primary care are complex and varied. Those that involve the process of care, as opposed to its content, are often poorly taught in medical school and residency, where it is difficult to simulate a real-life practice situation because of scheduling and training issues, different access to resources, and unique patient populations. As a result, many of the strategies required to deliver high-quality primary care in a future practice must be learned "on the job," after completion of training.

Primary care clinicians themselves tend to be independent, self-sufficient, and often professionally isolated. Most primary care clinicians do not publish in peer-reviewed journals. They do not present at regional or national meetings. They often do not even have the opportunity to share their wisdom with local colleagues. In fact, clinicians within the same group practice may use different methods for handling the same clinical tasks and never discuss these methods with practice partners. The result is that thousands of extremely bright people struggle on a daily basis with the same kinds of practice challenges, come up with a variety of solutions, and rarely share them with anyone. Their collective wisdom represents an immense untapped reservoir of practical information that could, if properly evaluated, described, and disseminated, improve the quality and efficiency of primary care services throughout the country.

The idea for "best practices research" came from a primary care physician (Dr Gregory) practicing in a small rural town in Oklahoma. During a visit with the director (Dr Mold) of the practice-based research network he had joined, he mentioned that he was tired of having peer-review organizations and insurance companies come and critique (criticize) his practices without showing him how to improve them. "If they would just tell me who has figured out how to do it correctly and how they did it, their advice would be more valuable to me." Now, 4 years later, his idea is being used to do just that.

Methods

Pneumococcal Immunization Study

Our first attempt at implementing a best practices approach to research was a small study designed to find ways to increase pneumococcal immunization rates in primary care settings. In this project, funded by the Merck Vaccine Division, six family physician members of the Oklahoma Physicians Resource/Research Network (OKPRN) agreed to participate in a contest in which they could receive a monetary award for the highest current immunization rate and also for their ability to increase their immunization rate. We were not certain that any of the clinicians had developed an effective method and, therefore, to increase the likelihood of success, we provided them with assistance. We

From the Department of Family and Preventive Medicine, University of Oklahoma (Dr Mold); and private practice, Gregory Clinic, Okarche, Okla (Dr Gregory). Dr Gregory is now with the Garfield County Family Practice Residency, Enid, Okla.

required them to report, in writing, their current immunization strategies and planned enhancements, which had to be sustainable. They were provided with a summary of the current literature pertaining to the strategies that had been most effective in other settings. Six physicians participated in the study, the results of which are shown in Figure 1.

One physician won both awards. His method involved the following components. First, he assigned responsibility for pneumococcal immunization to his nurse, emphasizing the high level of importance that he placed on successful immunizations (physician leadership), and he provided the nurse with instructions regarding indications for the vaccine's use (delegation of responsibility). Second, he routinely reviewed his encounter forms at the end of the day to make sure that the nurse was giving the vaccine to eligible patients (oversight). Third, he held special immunization clinics on weekends during the fall and linked pneuomococcal immunizations to influenza immunizations (focus). Several of the other clinicians used some, but not all, of these methods. Therefore, it appeared likely that all components were required for optimal performance. This finding, which is compatible with the available literature, is now being incorporated into an expanded initiative designed to increase delivery of other immunizations and other preventive services with the network.

Management of Laboratory Test Results

During the same visit between Dr Mold and Dr Gregory, Dr Gregory pointed to the large stack of recent lab test results on his desk and asked for advice regarding how best to handle them. A literature review revealed that primary care clinicians generally do a poor job of managing laboratory test results and that there is a great deal of variation in their strategies. Boohaker et al had articulated four steps involved in the process: (1) tracking, (2) patient notification, (3) documentation, and (4) follow-up.[1] In a refinement of our best practices research method, we decided to search for optimal strategies for each of the steps, rather than assuming that any single clinician or practice had mastered all four steps.

An initial survey of 24 physician members of OKPRN confirmed the diversity of laboratory test management methods both between and within practices. For example, 92% of physicians used different lab test management strategies than the other physicians within the same practice group. Only half of the respondents were satisfied with the method they were using for at least one of the aforementioned four steps.

Physicians who were satisfied with their method for any step were asked to provide more-specific information about the methods used. Methods were then categorized, and at least one practice representing each methodological category was audited. The audits revealed two things: some physicians had developed strategies that worked exceptionally well, and the level of physician confidence in a system did not always correlate with its actual performance. Fortunately, through this process, we were able to identify excellent methods for the first three steps (Table 1). One solo practitioner had figured out how to manage two of the four steps exceptionally well, and his method became part of our best combined method.[2] The results of this study have generated more interest from physicians than any other single project we have undertaken.

Management of Prescription Refills

Buoyed by our success with lab test management, we decided to pursue another challenge, the management of prescription refills. Unfortunately, there was no simple model or set of steps available from the published literature. We realized, after several group discussions within the practice network, that we could not count on information gathered from physicians and patients alone but needed to involve nurses, front office staff, and pharmacists in the discussion as well.

Figure 1

Pneumococcal Immunization Contest

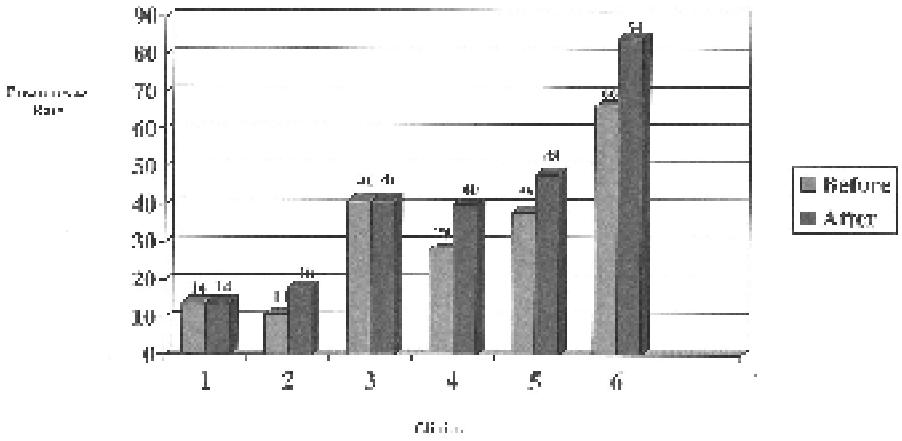

Table 1

Summary of Combined Best Method

- *Step 1: Tracking Test Ordering*
  Two people track all tests: (1) someone responsible for the laboratory and (2) the clinician's nurse or medical assistant. Single person log-in and log-out systems appear to be more likely to fail.
- *Step 2: Patient Notification*
  A physician note is written onto the actual laboratory result sheet and dated. The nurse or medical assistant dates, initials, and stamps the same sheet "mailed to patient." The sheet is then copied, and the copy is mailed to the patient with a generic laboratory test explanation sheet.
- *Step 3: Documentation*
  The original laboratory result sheet is put in the chart.
- *Step 4: Follow-up*
  Follow-up may require a tickler file system maintained by either the nurse or appointment secretary.

Thus, our ultimate model has taken longer to develop and is somewhat more complicated than the one for laboratory test results.

"Best" was also more difficult to define because of the various stakeholders. We agreed that the method should be efficient but efficient for whom?—the physician's office or the pharmacy? And what is the appropriate balance between efficiency and patient satisfaction? We also recognized early on that one potentially effective strategy involves reducing the volume of prescription refills by writing larger prescriptions with more refills. However, doing so may disrupt other office processes designed to make sure patients come back for follow-up care.

Because of the complexity of the issue, we were forced to more clearly articulate the steps involved in our investigative process. Our current best practices research method is shown in Table 2. By "conceptual model," we mean a flow diagram that captures all of the component parts of the process, including, when appropriate, the steps immediately before and after it. Determining the meaning of "best" involves creating a list of desirable qualities, prioritizing them, and setting minimum standards for each. The first evaluation phase involves identification of potential best practices and evaluating a representative sample of them. The best practices for individual steps are then described and combined. The combined method can then be disseminated or tested more formally.

In addition to the prescription refill project, we are currently using this approach to find ways to improve the management of diabetic patients. Other topics that have been suggested include management of pharmaceutical representatives and medication samples, maximization of evaluation and management coding and reimbursement, and management of the consultation and referral process.

Table 2

Best Practices Research

Development of conceptual model
- Literature review
- Interviews and/or focus groups with stakeholders: physicians, nurses, patients, pharmacists, health insurance companies, malpractice insurance carriers
- Creation of a unified conceptual model and/or list of components
- Feedback from stakeholders on face validity of the unified model

Definition of "best" method
- Determine desired qualities (eg, cost, accuracy, and patient, physician, nurse satisfaction) and their relative values using Delphi method
- Determine methods to be used to measure each quality
- Set minimum standards for each quality

Identification/evaluation of potential methods for each component
- Survey of participating physicians/nurses to identify effective methods for each component (can be one they are using, have heard of, have thought of trying, or can envision). This may take more than one iteration of a Delphi or similar method.
- Selection of methods to be evaluated for each component
- Evaluation of selected methods (chart audits, etc.)
- Time-motion studies of components
- Selection of "best" method for each component

Combining "best" components
- Assess compatibility of individual "best" methods for each of components
- Develop combined "best" method from best method for each component if possible
- Construct combined time-motion study
- Consider for whom the method might not work well and why

Test combined method
- Identify sites that want to test new method
- Measure baseline performance
- Implement new method
- Test performance of new method

Discussion

The best practices discovered by this method were so simple and made so much sense that they were quickly adopted a significant number of network clinicians. Because they were discovered and developed in real-life practice settings, they had been proven to be feasible. They had substantial face validity, tended to be efficient, and could be carried out by personnel already available in most clinicians' offices.

Prior efforts to improve primary care processes have used more-traditional research or quality improvement approaches. For example, to address pneumococcal immunization rates, researchers, after describing the size of the problem, might use a theoretical model (eg, health belief model, theory of reasoned action) to direct their efforts to determine barriers and potential motivators. They would use this information to design and test an intervention that, based on the model, ought to work. This is a fairly lengthy process and is likely to result in a perfectly reasonable intervention that is less effective than predicted because it just does not fit the

flow pattern of a primary care office, costs too much, or for some other reason does not appeal to the clinicians or staff. If the goal is to understand the process, a traditional research approach is essential; if the goal is to find a solution, best practices research appears to get you there more quickly and effectively.

Quality improvement approaches have tended to rely on assessment, feedback, and goal setting within the same practice. This is the approach decried by Dr Gregory as frustrating and inefficient. Primary care practices generally operate on all cylinders most of the time and have little time to implement formal quality improvement programs. Aside from team building, which tends to occur naturally in a small group practice anyway, why should every practice have to struggle to discover the methods that others have already perfected?

Practice-based research networks are ideal settings in which to conduct best practices research, particularly when their memberships are large and diverse enough that the probability of finding a solution to a particular problem is reasonably high. Clinicians who join these networks tend to be interested in discovering better ways of doing things. They are willing to have someone come and examine what they are doing, especially if it will help them or their patients. They are generally not concerned about competition with other members of the network and are willing to share their discoveries and experience.

Any health care system or network of sufficient size can use a best practices research method, assuming the members are anxious to improve what they are doing and willing to share ideas. The Veterans Administration has been using a best practices method over the last several years with impressive results.[3-5] A group of 12 Medicaid health plans, as part of the Best Clinical and Administrative Practices Initiative, has also adopted this strategy.[6]

There are, however, some significant limitations and disadvantages to the approach. Some processes cannot be so easily broken down into steps or components. No one in a particular network or group may have figured out how to effectively accomplish a particular task. Best methods for individual steps may be practice specific or may not fit nicely together into a combined best practice method. Combined best practice solutions may not be applicable to all practices (eg, practices with and without a laboratory technician or practices with and without an electronic medical record). Finally, since the research process is not theory driven, solutions tend to be issue specific.

Another potential problem is funding. Research, which is traditionally directed toward understanding problems, is more likely to receive external funding than quality improvement, which is directed toward solving problems. Best practices research qualifies as research because its purpose is to make discoveries that will be disseminated. However, it resembles quality improvement since it is focused on solutions rather than understanding. Our funding, to date, has come from a pharmaceutical company and from the Oklahoma Foundation for Medical Quality. An Agency for Healthcare Research and Quality application has been submitted and awaits review.

Conclusions

In summary, best practices research represents a solution-focused approach to the investigation of the processes of clinical care that appears to be effective and efficient. It is applicable to a large variety of the practical problems faced by clinicians every day. It requires a large enough group of practicing clinicians who are not in direct competition and are willing to collaborate and a small research staff. It could be done in collaboration with a peer-review organization or an existing quality improvement team. The findings can be rapidly disseminated and implemented, though some on-site assistance may be required for implementation of more-complex processes. We hope that others will test and improve the method and that those already using it will be empowered to publish their findings.

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References

1. Boohaker EA, Ward RF, Ulman JE, McCarthy BD. Patient notification and follow-up of abnormal test results. Arch Intern Med 1996;156:327-31.
2. Mold JW, Cacy DS, Dalbir DK. Management of laboratory test results in family practice: an OKPRN study. J Fam Pract 2000;49(8):709-15.
3. Krakauer H, Lin MJ, Schone EM, et al. "Best clinical practice": assessment of processes of care and of outcomes in the US military health services system. J Eval Clin Pract 1998;4(1):11-29.
4. Oddone E, Brass LM, Booss J, et al. Quality Enhancement Research Initiative in stroke: prevention, treatment, and rehabilitation. Med Care 2000;38(6 suppl 1):192-204.
5. Khuri SF, Daley J, Henderson WG. The comparative assessment and improvement of quality of surgical care in the Department of Veterans Affairs. Arch Surg 2002;137(1):20-7.
6. Brodsky KL, Baron RJ. A "best practices" strategy to improve quality in Medicaid managed care plans. J Urban Health 2000;77(4):595-602.

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