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Health Insurance Coverage and Reimbursement Decisions

Implications for Increased Comparative Effectiveness Research

Comparative effectiveness research is being pursued as a way to better assess the value of health care treatment options. Proponents believe that this research can help identify the best courses of treatment and lead to more standardized practices, thus increasing the quality and value of health care while reducing the wide variation in practice patterns.

To provide insights into the potential implications of more formal comparative effectiveness research, it is important to better understand how advances in health technology and treatment protocols are incorporated into the healthcare system. The American Academy of Actuaries' Health Care Quality Work Group developed this issue brief to discuss current assessments of health care quality; the process for incorporating new treatment protocols and technologies into health insurance coverage; and the policy implications of comparative effectiveness research.

HEALTH CARE QUALITY AND VALUE TODAY

As health care spending continues to rise, significant evidence suggests that the money being spent for health care is not providing adequate quality and value. For example, the Agency for Healthcare Research and Quality (AHRQ) reports that for many of the most prevalent diseases health spending increases faster than the rate of quality improvement.[1] The ratio of spending growth to quality improvement, however, is not the only indication that individuals may not be receiving enough value from the health care system—findings related to geographic variations in treatments and the prevalence of medical errors also are important factors. Data from the Dartmouth Atlas of Health Care suggest that despite large differences in Medicare spending across geographic regions, the quality of care is not significantly greater in the higher-spending areas.[2] Furthermore, the Institute of Medicine estimates that as many as 100,000 Americans die each year due to medical errors.[3]

One reason for such geographic variations and inconsistent quality of

[1]Agency for Healthcare Research and Quality, National Healthcare Quality Report (Washington, DC: 2007). The rate of quality improvement refers to the rate at which the health care system is making improvements specific to AHRQ's 41 core measures.
[2]Fisher, Elliott, et al. "The Implications of Regional Variations in Medicare Spending. Part 1: The Content, Quality and Accessibility of Care." Annals of Internal Medicine (Volume 138, No.4, 2003).
[3]Institute of Medicine. To Err Is Human: Building a Better Health System. (Washington, D.C.: National Academy Press, 2000).

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care may be the lack of information on what constitutes the appropriate treatments for specific conditions. In fact, a large share of services provided to patients and reimbursed by insurers has no underlying evidence base.[4] While quality measures are being developed, many of them focus on fairly simple treatment protocols. For instance, in its National Healthcare Quality Report, AHRQ uses 41 core quality measures (and 211 total quality measures) to evaluate the treatments for a number of prevalent conditions. The core measures for heart disease include whether recommended care is received for a heart attack; whether smokers, while hospitalized, are counseled to quit smoking; and whether obese adults are counseled about exercise. These are relatively simple measures, but even with such guidelines there is a significant gap in the quality of care received. AHRQ reports that between 1994 and 2005, 27 of the 41 core measures showed improvement, six declined, and six showed no change.[5] Similarly, a study assessing quality of care by examining the extent to which standard treatment protocols are adhered to concluded that patients receive only 55 percent of the recommended care.[6]

Determining what treatments are most effective is only a first step; the information must be available to and used by clinicians for it to have value. However, studies indicate that an average of 17 years passes before research-generated knowledge, such as that from randomized clinical trials, is incorporated into widespread clinical practice—and even then the application of the knowledge remains uneven.[7] The AHRQ's National Guideline Clearinghouse (NGC) is intended to make medical evidence on treatments for a variety of diseases more widely available, providing information on clinical practice guidelines and appropriate interventions.

HOW NEW HEALTH TECHNOLOGIES AND PROTOCOLS ARE INCORPORATED INTO HEALTH INSURANCE COVERAGE AND REIMBURSEMENT DECISIONS

When new health care technologies and treatment protocols are developed, insurers have to determine whether and how to incorporate them into an insurance plan. Decisions need to be made not only regarding whether to cover the new technology or protocol, but also how it should be reimbursed.

Insurers have several resources available to help with these decisions, specifically in terms of assessing existing and new technologies and treatments. Many private insurers subscribe to the services of technology assessment organizations, which evaluate the scientific evidence of emerging health technologies. These organizations focus on issues related to safety, efficacy, clinical indications, and when possible, comparisons of competing technology. Other insurers perform their own analyses rather than subscribe to an outside assessment organization. Furthermore, most large insurers that subscribe to an outside assessment organization perform some health technology assessment in-house, as well. Other resources for assessment include federally funded assessment centers, most often housed at various universities.[8]

Although there may be only minor variations in assessments across these different resources, how the assessment conclusions are implemented can vary among insurers. For instance, some insurers tend to be fairly restrictive in what they cover, whereas others are less restrictive.

Public payers such as Medicare and Medicaid may also use the analyses of technology assessment organizations; however, their coverage and reimbursement decisions also are influenced by existing legislative require-

[4]"What Proportion of Healthcare is Evidence Based? Resource Guide," www.shef.ac.uk/~scharr/ir/percent.html
[5]Agency for Healthcare Research and Quality, National Healthcare Quality Report (Washington, DC: 2007). The change in two of the core measures could not be determined.
[6]McGlynn, Elizabeth A., et al. "The Quality of Health Care Delivered to Adults in the United States." The New England Journal of Medicine, Volume 348:2635-2645. June 26, 2003.
[7]Balas, E.A. 2001. Information Systems Can Prevent Errors and Improve Quality. [Comment]. Journal of the American Medical Informatics Association 8 (4):398-9.
[8]As opposed to large insurers and health plans, many of the smaller, local third party administrators (TPAs) have limited resources, and their coverage decisions recognize the transactional nature of their business. Decisions tend to follow prevailing industry practice, favoring expediency and approving claims where possible.

ments and internal procedures. For instance, Medicare processes claims using regional intermediaries, which are required by law to form a physician committee to make local coverage determinations (LCDs). And while some may, these committees are not required to make use of evidence-based health technology assessments in their determinations. Instead, decisions tend to conform to generally accepted regional practice patterns and/or the professional experience of the committee members. At the national level, the Centers for Medicare and Medicaid Services (CMS) periodically provide coverage decisions through federal directives, termed national coverage determinations (NCDs). Such directives are prepared by a review panel that assesses available primary research and relevant descriptive information and may consider testimony from interested stakeholders.

Private health insurance plan documents typically contain provisions that affect whether specific benefits are determined to be covered by the policy. These types of provisions usually come in three forms. First, a plan document could contain language specifying that any covered medical services be of "proven benefit" (i.e., not experimental or investigational). Second, a plan document could contain language stating that covered services must be "medically necessary." And third, plan documents often contain a list of specific exclusions. For example, most plans specifically exclude cosmetic procedures or speech therapy unless it is restorative. Although they may be covered at times, some more discretionary or lifestyle-related services such as bariatric surgery may be excluded, regardless of supporting clinical evidence.

Insurers then make specific coverage determinations based on the information available. Formal policies are developed proactively whenever possible, using evidence-based health technology assessments to determine whether a health service or procedure is of "proven benefit." The health technologies examined tend to be new and/or controversial treatments, as opposed to therapies, diagnostics, or other services that have been in use for some time. However, there are often patient-specific requests for services for which no formal policies exist, necessitating brief, focused literature searches and expert opinion.

Beyond coverage decisions, health technology assessments are also used to determine how a medical treatment will be reimbursed. If an insurer decides to cover a particular treatment, the level of reimbursement may depend not only on its cost but also on evidence regarding whether it is proven to be more effective than other existing treatments. A new technology that is more costly, but more effective in the long run, is more likely to be reimbursed at a higher rate than the existing technology.

For instance, a total hip replacement prosthesis includes artificial joints made with titanium, ceramic, and other materials. Conventional wisdom is that newer joint replacements made with composite materials will pay for themselves in the long term due to having a longer functional life. However, there are no comparative studies to support that conclusion. As a result, insurers could opt to reimburse the newer joints at the same rate as the older ones or pay the higher price only for younger patients with longer life expectancies. In contrast, local third party administrators could simply reimburse at the higher rate for the "newest" joint replacement, with little review.

Beyond relying solely on an economic assessment of relative long-term costs, insurers could opt to reimburse newer technologies at a higher rate when they are proven to increase safety, be more effective, or reduce recovery times. One example is minimally invasive surgery for heart valve replacements. Instead of performing open-heart surgery with its inherent risks, the surgeon performs the surgery through small incisions in the patient's chest. For suitable candidates, this has been shown to reduce recovery time significantly and the inpatient stay is generally reduced. Health plans often cover such procedures at a higher reimbursement rate.

As new technology assessments are made, they are often limited by a lack of credible clinical data. Either there are no data at all or the data that are available do not offer enough high-quality evidence comparing

the new technology to existing treatments or technologies. New drug trials provide an interesting example of this. Food and Drug Administration (FDA) approval requires that a drug developer show, through controlled clinical trials, that the drug is proven safe and effective. Typically, however, drug efficacy is demonstrated by comparison to a placebo. Furthermore, these clinical trials are often highly targeted and performed on relatively homogenous populations. As a result, they do not show effectiveness compared to other generally available drug or treatment options; the drug's effectiveness when released on a broader, more heterogeneous population; or the effects of long-term use.

POLICY IMPLICATIONS

Health insurers currently utilize health care technology assessments, in both coverage determination and reimbursement decisions. Nevertheless, these assessments are often limited in scope and value. New comparative effectiveness research has the potential to be incorporated into the already existing mechanisms for coverage and treatment decisions, as well as help further define and improve the value and quality of health care.

Most of the existing research regarding technology assessment is based on secondary research of clinical analyses that are focused on and rarely go beyond proving that a treatment is safe and effective. New comparative effectiveness research can add more value and improve upon the information already available by increasing the body of primary research of head-to-head trials that compare new treatments and technologies to those already existing. It can provide insights into whether certain treatments are more effective than already existing options. The research also has the potential to provide information on which patients respond better to specific treatments. Because much of the health care currently provided does not have an underlying evidence base, new comparative effectiveness research should also include studies of existing treatments and technologies. Such analyses could lead to a greater development of evidence-based treatment protocols and a reduction in practice variations.

Current health insurer procedures that are put in place to incorporate new treatment and technology assessment findings into coverage and reimbursement decisions can include the findings resulting from new comparative effectiveness research. However, health information systems need to be able to distinguish between specific treatments. Otherwise, health insurers will not be able to set different coverage and reimbursement policies for the different treatment options. This may require that International Classification of Diseases (ICD), Current Procedural Terminology (CPT), and Healthcare Common Procedure (HCPC) codes be finely differentiated to account for these variations. As the definition of quality of health care is further refined by comparative effectiveness studies, it will likely lead to higher expectations for measuring and evaluating variation around provider performance and member compliance. That data will also be essential for the implementation of potential benefit incentive strategies as well as reimbursement policies.

Ultimately, the value of comparative effectiveness research depends on its ability to positively influence treatment decisions, not just insurance coverage and reimbursement decisions. Reimbursement policies can influence treatment decisions by more favorably reimbursing treatments which are deemed to be more effective (considering both costs and benefits) and discouraging less effective treatments by reimbursing them at less favorable rates. Pay-for-performance incentives can also incorporate comparative effectiveness research findings and any resulting evidence-based guidelines.

Comparative effectiveness research, when effectively integrated and applied into select areas of health insurance, can help refocus the health care delivery system on the value of care received and facilitate a shift toward more evidence-based medicine. In doing so, it has the potential to increase the quality and value of care as well as reduce the variation in health care treatment and spending across the country that is not associated with better health care outcomes.