Comparative Effectiveness Research

Comparative effectiveness research is the generation of evidence that compares the benefits and harms of alternative methods to prevent or manage a clinical condition or improve the delivery of care (CER). In 2008 the Institute of Medicine issued a report calling for research that would support better decision-making on which medical interventions to use. President Obama signed into law an initiative to support research on the comparative effectiveness of drugs, medical devices, surgical procedures and other treatments. CER has the potential to improve care and reduce costs. The objective is to advise on health care both at an individual and population level. It helps by reducing overuse, underuse and misuse of therapies and technology. CER has the potential to identify the most effective interventions and to be used where appropriate, and the most appropriate interventions may not be available.

The process can tackle large issues. Teutsch and Fielding use the term looking under the lamppost to describe where the greatest expenditures actually lie. The questions posed will not have either/or answers but a better balance about what should be done can be achieved. Examples provided include the merits and drawbacks of bariatric surgery compared with increased education and access to healthy foods. Another illustration is the balance between early investigative technology for lung cancer and the need to intensify initiatives to reduce tobacco use. Where does funding go and where is the best value for money? In the US there is a process in place to decrease preventable hospital readmissions within 30 days of discharge by 25%. It involves good discharge planning and effective communication between hospital, GP and community services.

A commonly asked question is why cost-effective models of care take so long to be assimilated into clinical practice. It appears to happen more quickly in other industries. The answer is not simple, the reasons are complex. It is assumed that the decision to act on new medical evidence and its implementation in routine medical care is seamless and automatic. This is not the case. There are a large group of decision makers involved. Doctors have a poor understanding of the procedures involved in effecting beneficial change. The problem is that they have not been exposed to it during their training. Teachers rarely prioritize the teaching of cost-effective clinical practice. Older physicians may resist changes to the way that they manage patients. Some doctors do not like the concept of the standardization of care, multidisciplinary involvement in clinical decisions and the routine measurement of treatment outcomes. They fear that false targets will be set up. For example the decrease in emergency department waiting times with a corresponding rise in patients transferred to inappropriate units. Also there is a fear that autonomy will be lost. There is apprehension about governmental interference into the doctor-patient relationship. When these misgivings are strongly held progress is slow.

If improvements in healthcare were easy they would have happened by now. Solutions such hand washing, administering antibiotics on time and the institution of checklists seem easy. In practice they are not. They require a change culture, a new form of teamwork, more vigilance and changes in employment practices. McCannon and Bereit describe the raising of the floor and the raising of the bar in relation to improving performance and achieving sustainable, useful objectives. CER has the potential to assist patients, clinicians, and employers in making informed decisions on health care.

Perl has likened the issue of change to the first law of physics, an object will remain at rest unless acted upon by another force. Nothing will happen until the leader or manager does something positive. The more senior the backing of the process the faster the team will progress. He has proposed the inertia index which calculates the number of projects recommended by the clinical leaders and the actual number of projects that are in progress. The other consideration is that for every initiative there is opposition and choke points. While constructive debate is important there comes a point when objections become counterproductive. Ultimately someone who is not part of the solution may become part of the problem. A leader with good negotiating skills is required in order to determine when that point has been reached. The other concern is that initiatives will go off course and loose impetus unless there is constant supervision and overview. After an initial surge a programme can quickly slow down without the necessary support.

The media with its influence on public opinion is another concern. Misunderstanding is common. There is a perception that cost-effective care represents an attempt to simply reduce health funding. There is a mistrust of any attempt to curtail the introduction of new therapies or investigations even though their value is unproven. The efficacy of a new treatment can be exaggerated by headlines such as reducing mortality by one third when in actual fact the risk is only reduced from 0.03 to 0.02. Other slogans have stated that CER isn’t about informing choices but rather taking away options.

JFA Murphy
Editor

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