

# The importance of pharmacoeconomics and outcomes in modern healthcare

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## KEYWORDS

pharmacoeconomics, outcomes research, formulary management

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This month's issue is dedicated to pharmacoeconomics, outcomes, formulary management and the psychiatric pharmacist. Pharmacoeconomics is the branch of pharmacy practice which deals with the financial implications of medication use. Outcomes research is a broader term, which studies drug use in terms of economic, clinical and humanistic outcomes (often referred to as the ECHO model).<sup>1</sup> Formulary management, on the other hand, is a common strategy used to apply pharmacoeconomic considerations and outcomes research within the practice of a specific health system.

These topics are becoming increasingly important in the current economic climate. Recent legislation has greatly increased the potential for more research in these areas. The American Recovery and Reinvestment Act of 2009 began this process by allocating \$1.1 billion dollars to Comparative Effectiveness Research (CER).<sup>2</sup> This act also created the Federal Coordinating Council for Comparative Effectiveness Research. The goal of this was to coordinate between a number of federal agencies to foster comparative effectiveness research, reduce redundancy and share resources, when possible.

In 2010, the Patient Protection and Affordable Care Act (ACA) was passed. One of the provisions of the PPACA was the creation of the Patient Centered Outcomes Research Institute (PCORI).<sup>3</sup> PCORI superseded the Federal Coordinating Council as a permanent, quasi-public body to coordinate national efforts at encouraging comparative effectiveness research. PCORI's tasks include developing national priorities for comparative effectiveness research and allocating funds to various agencies and organizations performing this research. The priorities that were named by PCORI in 2012 include:<sup>4</sup>

- Assessment of options for prevention, diagnosis and treatment
- Improving health care systems
- Dissemination and communications research
- Addressing disparities
- Accelerating patient-centered outcomes research and methodology

The first priority directly addresses comparative effectiveness between treatment options. The second priority deals more with the delivery of health-care than the actual interventions. The third priority means to ensure that all parties (including providers, patients and caregivers) are informed of the results. The fourth priority means to include all groups equitably in research, including those groups traditionally not researched (i.e., specific ethnic groups, age groups, etc.). Finally, the fifth priority means to ensure that research addresses those questions that patients find most important and is carried out in a way that is important to the patient.

These recent developments show how comparative effectiveness research will be increasingly prominent. It will be important for clinicians to be aware of these studies as they are published, as the results will inform decision making in a variety of ways. It is important to remember the difference between efficacy and effectiveness. Efficacy answers the question of whether a drug works (usually compared with placebo), whereas effectiveness answers the question of whether a drug works *in actual practice* (often compared with other treatments). Unfortunately, most research currently is efficacy research and not effectiveness research, let alone CER. CER will, in the future, impact day to day practice by giving the clinician a better idea of which medication to select based on patient-specific characteristics. In addition, it may eventually affect medication coverage and payment, as less effective medications would become second or third line options in favor of medications with better effectiveness. However, most hope that this data will be used to target specific

treatments for specific patients and not a blanket "one-size-fits-all drug x is better than drug y" strategy.

Because of the anticipated large increase in the amount of data to be published, the role of the clinical pharmacy specialist may receive greater emphasis. The clinical pharmacy specialist is in a unique position to have a firm grasp on the medication outcomes literature and to be able to apply it to specific patients by balancing the evidence provided in the literature with patient specific characteristics, drug interactions, etc. In this issue, we publish a discussion of the efforts already being made by pharmacists in the area of Comprehensive Medication Management. The advancement of CMM is just one way in which psychiatric pharmacists can help to apply the information garnered from this increase in CER. In addition to this article, other articles in this issue include reviews of specific drugs and drug classes, reports of projects reviewing potential cost savings and a pair of articles addressing the formulary management process.

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