The decision on April 7, 2022, by the Centers for Medicare & Medicaid Services (CMS) that requires "coverage with evidence development" (CED) for aducanumab and other drugs for the treatment of Alzheimer disease was highly controversial. Coverage with evidence development enables Medicare to cover services on the condition that they are furnished in the context of collecting additional clinical data on safety and efficacy. Rita Redberg, MD, MSc, and I have contended that CED was the only viable alternative for CMS coverage for this class of drugs.1 However, others have argued that the application of CED is an unusual and overreaching requirement that will inappropriately restrict access indefinitely.2

Despite this controversy, little attention has been devoted to examining the history and prevalence of CED and how well this CMS policy has worked in the past. The very limited evidence available suggests that required studies are often not initiated or completed, and final coverage policies rarely change after evidence development. Thus, the implications and lessons learned from the recent CMS decision regarding Alzheimer disease therapies could extend far beyond this decision.

This is an opportune time to consider how CED can be improved as CMS is currently reviewing its CED guidance. This guidance is reviewed approximately every 10 years, with the last guidance issued in 2014.3 The revised guidance will be posted for public comment and evaluated by the CMS Medicare Evidence Development & Coverage Advisory Committee before being finalized and implemented.

History and Implementation of CEDs

Requirements for CED are not new or particularly rare at CMS. The precursor to the CED program was created in 1995, and CMS has formally applied CED to Medicare coverage decisions since 2005. Among national coverage decisions since 2005, 26 of 348 have required CED,4,5 and some Medicare local coverage decisions have also required data development. Primarily CEDs have been required for devices and diagnostics, with the most common applications to interventional therapies and cardiovascular disease. Despite the long history of CEDs, almost no published evidence exists from CMS or independent evaluations on whether CEDs are successfully implemented and whether the results change coverage policies.

Only 1 recent study examined the outcomes of CED in the US by linking CED studies with published trial and registry results.5 This study found wide variability in CED requirements and study duration and little use of results for final coverage decisions. Of 26 CEDs, 3 had no data collection at all, and only 62% of studies collecting data had published results. In only 3 instances were data collection requirements formally completed, and none of these efforts resulted in coverage termination or limitations.

Descriptive studies of CED in the US and in Europe, where CED is more commonly used, have found similar results—that little attention is paid to evaluation of CED and that coverage decisions rarely change after study completion.6-8 Thus, because it is rare for CMS to rescind coverage, the CMS decision to require CED for Alzheimer drugs may just delay—rather than deny—coverage, contrary to how the decision has been portrayed in the media.
Several researchers have applied the following framework to categorize CED requirements into 4 phases: assessing desirability of CED, study design, implementation, and evaluation. Because the evaluation phase is critical to CED success but has been less studied and is less well-defined in the current guidance, recommendations on how to improve evaluation in the following domains could be particularly useful: (1) determining when a CED is implemented and completed and using the results to continue, revise, or rescind coverage; (2) using a transparent approach to report findings and decisions; and (3) assessing the value added of using CED from multiple perspectives.

**Improved Policy Influence of CMS CEDs**

**Greater Clarity and Tracking of CED Implementation, Completion, and Use of Results for Coverage Decisions**

Defining the appropriate CED study design when a CED requirement is issued is only a first step. Requirements for CED must also define the process and measures that will be used to assess whether and when studies are successfully completed. These requirements should also include criteria that will be used to determine whether coverage should continue, be limited, or be rescinded—and how study results and decisions will be tracked. Ideally these processes, measures, and timelines would be defined when CMS issues the CED coverage determination, although they should be flexible enough to evolve as needed. The evidence that CED studies are often not completed suggests that evaluations might best be conducted by another federal agency or research organization that can systematically, rigorously, and objectively conduct and disseminate these evaluations in a timely manner and with appropriate funding.

**More Transparent Reporting of Results and Final Coverage Determinations**

The current CMS guidance cites transparency as a guiding principle with a requirement that results be made public within 12 months of the study’s completion either in a peer-reviewed journal or publicly accessible registry. However, transparency and clarity are often lacking. As noted by 1 systematic review, the CMS website lists the approved studies, but study progress and results are not posted and had to be found by searching ClinicalTrials.gov. Additionally, because not all results were reported in this database, further searching of PubMed and the gray literature was required to determine whether studies were completed and to assess the study results and final coverage decisions. Thus, the CMS website should explicitly report or link to study results, cite published articles, and indicate the final coverage decisions in an easy-to-use format.

**Assessment of Value Added From CED Using Multiple Perspectives**

Good practices guidelines for CEDs as well as other similar types of arrangements note the importance of assessing whether the use of CED ultimately provides value. Although CMS does not consider costs in its evaluations, the question of whether the benefits of using CED outweigh the potential detriments cannot be avoided. Not only does CED incur large financial costs, such as the cost of studies to manufacturers and government, but it also may have possible detriments to health incurred by patients who cannot obtain the therapy while it is being studied—as well as added benefits if adverse effects of treatments are avoided while evidence on safety is gathered and assessed. However, current CMS guidance does not address whether and how CED decisions will be assessed for value added, and independent evaluations have not been conducted. All relevant stakeholders’ perspectives—patients, clinicians, manufacturers, payers, and government—should factor into these assessments.
CED as a Tool to Promote Value-Based Care

The use of CED is likely to increase as pressures intensify to advance value-based care. Thus, CEDs should be rigorously studied to understand whether companies seeking CMS coverage approval meet CED requirements, how these initiatives succeed or fail, whether the final coverage decision reflects the evidence, and the effect of CED on patient outcomes and health care costs. Coverage with evidence development is a policy tool that has been applied to numerous therapies, but CMS must require and track evidence on how CED is implemented and when and how the evidence obtained changes coverage decisions. Requirements for CED could be important tools to drive value-based care, but they will require transparency and more rigorous evaluation to assess their effect.

ARTICLE INFORMATION
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