Addressing low-value care in Optum Symmetry EBM Connect

The United States continues to spend more on health care than any other country, with costs accounting for 17% of the gross domestic product and health care spending approaching $11,000 per person.[1] While costs increase, waste remains a significant problem.

According to experts, the opportunity to reduce waste in health care is enormous.[2] In fact, estimates of the annual cost attributed to waste in the U.S. health care system ranges from $760 billion to $935 billion, which is approximately 25% of total health care spending.[3]

Low-value care (LVC) is defined as wasteful services, or those with potential risks outweighing the benefits, that provide little or no clinical benefit but incur health care costs.[4] LVC is a substantial category of waste that concerns various stakeholders. Yet, despite the growing recognition that LVC contributes to excessive spending without improved patient outcomes, these services have not been a major focus of quality measurement efforts to date.

Low-value care

is a service that provides little or no clinical benefit but incurs health care costs.[4]

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LVC is ubiquitous and potentially affects many different types of services – surgical procedures, diagnostic and therapeutic procedures, cancer screening, preventive and diagnostic tests, preoperative testing, imaging and medication use. According to several studies, the problem is common, costly and broad in nature.

- According to a study based on 26 claims-based measures of LVC services, Medicare beneficiaries commonly received care that was likely to provide minimal or no benefit. Services detected by more sensitive versions of the measures impacted 42% of beneficiaries and represented 2.7% of overall annual spending.[5]
- In a study that compared LVC in a Medicaid versus commercially insured population, 14.9% and 11.4% of Medicaid and commercially insured patients, respectively, received at least one LVC service during the one-year study period.[6] Medicaid patients were more likely to receive LVC for 10 measures and less likely to receive LVC for five others. Some of the more common LVC services included imaging for low back pain, uncomplicated headaches and plantar fasciitis.
- Within the Veterans Health Administration (VHA), up to 21% of veterans had LVC tests in the management of four common medical problems, with substantial variation observed across VHA medical centers. When using more sensitive versions of claims-based measures, the most common LVC service for veterans with the condition included imaging for nonspecific low back pain (10.9–24.6%) and imaging for uncomplicated headaches (8.4–22.1%) or syncope (13.1–24.3%).[7]

Not only does LVC contribute to excessive health care spending, but it jeopardizes health care quality, patient safety and the patient experience. For instance, studies intended to explore the intersection of quality outcomes and low-value obstetrical care demonstrated that early elective deliveries increase premature births, medical complications for mothers and babies, and cesarean section rates.[8,9,10] Meanwhile, little is known about the downstream consequences and "costs" that extend beyond the specific LVC provided. These costs include the potential cascade of unwarranted services, complications from this care, unnecessary worry due to false positive test results, time away from work and a variety of other consequences that might negatively impact the health care experience.

Today, the health care industry is addressing some of these concerns through payment reform, quality measures and other initiatives.

- Choosing Wisely is an initiative of the American Board of Internal Medicine (ABIM) Foundation designed to facilitate conversations between patients and their providers to avoid unnecessary tests, treatments and procedures. Although this initiative encourages providers in collaboration with their specialty organizations to identify potentially unnecessary services, it does not provide the detailed logic needed to systematically identify and measure these areas of concern.
- Within Centers for Medicare and Medicaid Services (CMS) quality programs, a limited number of quality measures specifically address the use of procedures to diagnose and treat patients with particular conditions, including imaging efficiency measures that report circumstances in which imaging might not be medically appropriate.
- The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) was established to shift to value-based reimbursement by focusing on quality over quantity, with the goal of making patients healthier.

- Disease and procedure registries are now common in many of the physician specialty organizations as the health care industry looks to improve the outcomes, processes and delivery of care.
- Finally, several national organizations, including the National Committee for Quality Assurance (NCQA) and the National Quality Forum (NQF), have focused some of their quality measurement efforts on LVC.

Despite these national initiatives, LVC persists. When examining trends over time during the past decade, several studies have failed to demonstrate significant progress in decreasing LVC,[11,12] supporting what some have called a "culture of overuse." To make eventual progress in this area, a variety of factors will need to be addressed:

- Research suggesting that, on average, it takes 17 years for physicians to incorporate evidence-based recommendations into their clinical practice[13]
- Ongoing financial incentives that reward more, but not better, care
- A perception by clinicians and patients that more is better
- Local organizational culture or drivers of LVC that allow it to persist
- Lack of sustained leadership and resources to drive necessary change
- Limited use of technology to identify opportunities and support intervention efforts
- The availability of robust quality measures that translate LVC clinical concepts, such as those identified in the Choosing Wisely initiative, into meaningful metrics that can be applied to available data sources

Efforts to substantially reduce LVC will require intentional measurement accompanied by policies and interventions that address the complex factors driving this care.

≈17 years

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Optum® Symmetry® EBM Connect® leverages claims-based data, technology and multiple medical sources – such as clinical trials, peer-reviewed literature, specialty organization guidelines and specifications from national organizations – to develop quality measures that support this measurement need. Administrative data have increased in both availability and comprehensiveness, providing a rich and convenient information source from which organizations can evaluate health care services and outcomes. In addition, sophisticated analytic tools and technology that encode standards of care provide an efficient and robust way to measure compliance, identify care opportunities and evaluate responses to interventions.

Purpose

The LVC content in EBM Connect will increase significantly in December 2021. This paper describes this powerful set of measures, which were developed to help clients understand the appropriateness of care for a variety of procedures, diagnostic tests and other services. The EBM Connect LVC measures process information and generate reports that health care organizations, provider groups and others can use to address the following objectives:

- Identify specific areas or providers where patient treatment may vary from accepted standards of care.
- Assess provider compliance for performance measurement programs or value-based compensation programs.
- Identify procedures, diagnostic tests and other services that are unnecessary or potentially harmful.
- Support organizations in their need to prioritize efforts to reduce LVC and track the impact of subsequent interventions.

Symmetry EBM Connect

EBM Connect is a software application that uses administrative data and laboratory results to identify members with select clinical conditions or with needs for preventive health care. The software identifies members using criteria such as gender, age, diagnoses and patient's duration of medical and pharmacy coverage. Importantly, exclusion criteria are applied where appropriate to avoid measuring members with certain contraindications or comorbidities. Once the appropriate set of members is identified, the EBM Connect product assesses each one's medical care by applying a series of clinical rule-based measures that define whether care was consistent with clinical guidelines and recommendations.

Quality measures developed by Optum are produced with the assistance of a clinical expert panel to ensure they represent the most current treatment guidelines. Optum reviews all measures on a regular basis, with input of the clinical expert panel, to ensure they continue to reflect current literature and guidelines. All measures undergo a testing and validation process after measure development and again if changes are made to the measures during routine measure review. Optum fully documents measure enhancements to provide up-to-date information on which to base measures and to share with members and provider groups. For additional information about EBM Connect, please reference the Optum Symmetry EBM Connect white paper.[14]

EBM Connect is part of the Symmetry suite of information products from Optum that support a wide array of business needs, leveraging a single methodological platform. This common platform allows organizations to apply industry-accepted measurement and assessment standards across a number of dimensions, including cost of care, health risk and quality of care.

Low-value care measure development

The development of LVC measures leverages many of the basic principles fundamental to EBM Connect, including rigorous development, maintenance and testing processes. This section highlights features or characteristics that are unique to this set of measures.

In the identification of potential LVC measures, multiple sources are considered. Primary sources, including Choosing Wisely, recommendations from the U.S. Preventive Services Task Force, medical specialty society guidelines, Agency for Healthcare Research and Quality (AHRQ), CMS and numerous evidence-based publications.

Once candidate measures are identified, a clinical review process is used to select, prioritize and develop the measures. This review process, which includes an expert panel of physicians, advanced degree pharmacologists, coding experts and analysts with quality measurement expertise, is described in the Optum Symmetry EBM Connect white paper.[14]

The design of LVC measures focuses on the careful development of inclusion and exclusion criteria in an effort to develop measures with higher specificity and lower sensitivity. For example, the logic defines specific benefit coverage requirements, age and gender criteria, concurrent diagnoses and comorbidities. The intent of this approach is to minimize false positive results or the incorrect identification of members for whom the service might be appropriate. Despite this effort to develop measures with higher specificity, claims-based quality measures might not identify all appropriate indications or exclusions for a procedure or diagnostic test, and measure results might not definitively determine the appropriateness of care provided. The LVC measures in EBM Connect are readily identified in product documentation.[15]

Application and use of measures

Measurement is a key step to document the baseline need and identify quality improvement efforts. The output from EBM Connect software can support analysis at a payer, provider or member level. Reports of measure compliance can identify opportunities to reduce potentially unnecessary services and support the development of a strategic roadmap to address LVC.

Health care organizations are continually challenged to identify ways to improve the quality of care delivered by providers. Payers who wish to improve compliance with evidence-based medicine in an efficient, comprehensive and timely manner require innovative ways to identify providers who are not yet implementing – or not yet aware of – clinical developments. Meanwhile, providers also need information about their quality measure performance and efficient use of resources to best treat their patients.

EBM Connect has a diverse set of LVC measures that align with national initiatives and are developed to support the needs of members, payers and providers. Results generated by the software provide a powerful foundation to support the following functions:

- Identify and prioritize LVC opportunities, considering prevalence of the service, potential cost savings, trends and variation in care.
- Support programs designed to reduce low-value health care, including follow-up measurement capabilities.
- Provide greater transparency related to quality and patient safety.
- Assess quality for primary care providers and specialists.

Thoughtful measure selection included the consideration of key criteria:

- How strong is the evidence that this service is associated with LVC?
- Is the LVC service common and/or high cost?
- How is it changing over time?
- Are there opportunities to reduce this LVC?
- Can the numerator, denominator and exclusion criteria be defined using administrative claims data?
- Are different services, conditions, member populations and specialty areas represented?

Identify variations in the use of LVC services to guide conversations between providers, health plan representatives and other key stakeholders. Using EBM Connect 10.2 test data, Figures 1 and 2 demonstrate how a client might visualize the LVC output and use it to prioritize opportunities.[16] Specifically, the nine most common LVC services as well as the highest total cost services are shown in Figures 1 and 2, respectively. In this dataset, spinal injection for low back pain without radiculopathy was most common and had the highest total costs reported.

Individual provider measurement, when possible, allows for the accountability of care provided to the patient. At a provider level, opportunities to improve quality and reduce LVC might be identified. Peer-to-peer comparisons may provide insight into practice variations among providers. Additionally, as patients seek out information to identify care providers, insight into provider quality indicators might serve as helpful reference points.

Provider attribution

Often, it is important to assign a responsible provider to a specific member when using data to examine care outcomes or find areas for improvement. For each LVC measure, the software tries to assign a responsible provider. For some measures, the responsible provider might be the provider who ordered the test or procedure (e.g., an imaging procedure). Other measures might identify the responsible provider as the one who rendered the actual service (e.g., cesarean section) or is identified as the primary care provider (PCP) based on EBM Connect PCP imputation logic.

The output data records that identify the responsible provider indicate whether the provider was the ordering provider, rendering provider or PCP.

Figure 1: Total number of LVC events

Spinal injection for low back pain without radiculopathy had the most noncompliant events

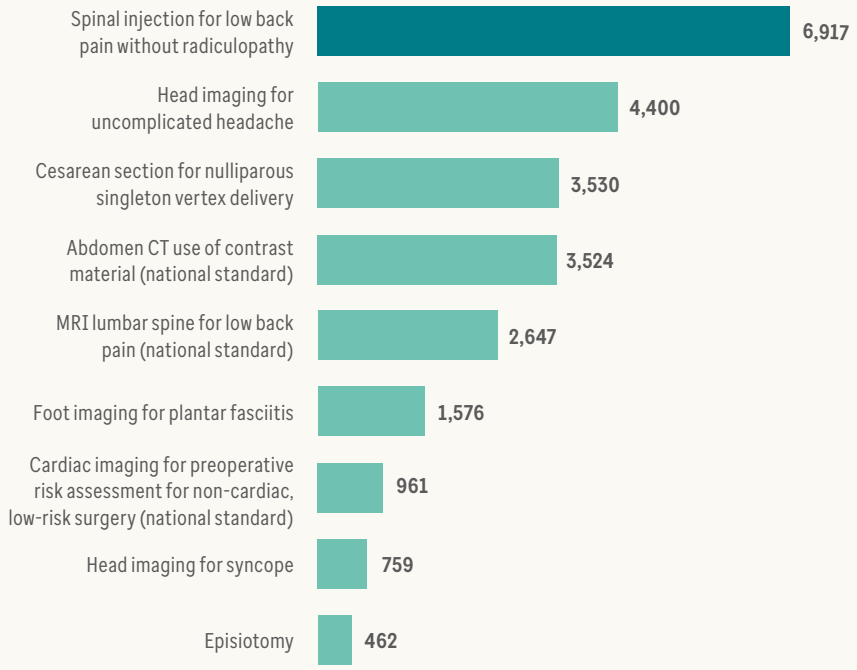
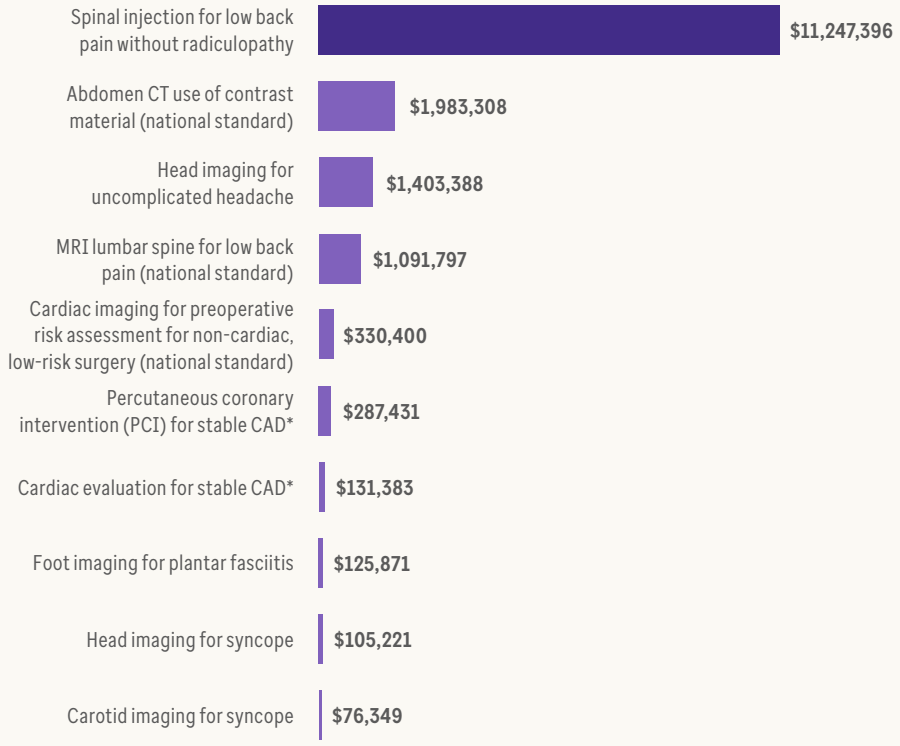


Figure 2: Total cost of LVC events

Spinal injection for low back pain without radiculopathy had the highest total cost for all noncompliant events



Procedure detail file and reported costs

The LCV measures provide insight into services that a member received. Users can link the output using common variables to produce data that meet their individual interests and requirements. An additional output file, called the procedure detail file, is unique to a subset of LVC measures.

The procedure detail file provides selected information from the input claims data that triggered a LVC service for a member. Information includes the trigger code for this service (e.g., the procedure code) that triggered a measure, as well as the responsible provider, date and place of service. In addition, this output file identifies potential costs associated with a select group of procedures that are typically not needed. When these costs are reported, the amount allowed and amount paid from the input claims are provided.

When costs are reported, it's important to remember the following:

- Reported costs for a service may not represent all costs associated with the delivery of that service.
- These costs include only the cost of the test and do not account for additional downstream costs (e.g., a falsely positive test that leads to additional diagnostics, or complications from the service).

Using EBM Connect 10.2 test results, Figure 3 demonstrates how a client might gain insight into the potential savings associated with an effort designed to reduce LVC.[16] In this example for spinal injection for low back pain without radiculopathy, a 35% reduction in noncompliance could reduce non-compliant events from 6,917 to 4,496, with an estimated reduction in costs from $11.2 million to $7.3 million. A client might perform a similar analysis, using their data and subsequent results from the procedure output file, to understand potential cost savings associated with a targeted intervention to reduce a service of interest.

Figure 3: Potential savings associated with a reduction in spinal injections for low back pain with radiculopathy

Current count of noncompliant events vs. potential new count

35% decrease
in noncompliant events

Total cost of noncompliant events vs. potential new cost

$3,936,589
potential cost savings

Summary

As health care costs continue to rise, it is essential to identify and address LVC.

Concerns about health care quality, safety and cost drive the need to measure, compare and improve health care performance. Research continues to point to major gaps between current medical knowledge and actual health care practice. Meanwhile, the U.S. spends more on health care while it underperforms in many areas, such as patient outcomes, compared to other industrialized countries.[17] Tremendous opportunity exists to improve clinical outcomes, decrease health care costs and utilization, and positively impact member health and quality of life by improving compliance with evidence-based medicine and other standards.

As we pursue the Triple Aim — improving patient experience, improving population health and reducing the per capita cost of health care — it's critical to have a robust set of quality measures that address LVC services. Health care organizations are most likely to succeed when they identify improvement opportunities, develop interventions to target those opportunities and gauge success using accurate metrics. EBM Connect software supports this process by efficiently using health care data to assess compliance to important and frequently performed services.

The Symmetry EBM Connect product combines measures based on extensive clinical review, research findings and guidance from national organizations to offer a flexible, comprehensive information platform for health care quality measurement. Complete transparency around the methods and evidence basis for each measure promotes understanding by all stakeholders and actionable steps for improvement. Results can identify key insights into performance and identify specific quality improvement opportunities at the member, provider and population levels. The more we learn about the prevalence, patterns and downstream consequences of LVC, the greater the opportunity to reduce cost and improve quality of care.

Contact us to learn more about Optum Symmetry EBM Connect.

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