Utilization Management

REDUCING WASTEFUL HEALTHCARE SPENDING AND INEFFICIENT PATIENT CARE

As healthcare expenditures climb, healthcare payers and providers are under pressure to reduce wasteful healthcare spending and inefficient care. Utilization management is successful when the member receives the "right services at the right time in the right place" at scale across a population. Utilization management begins with a risk stratification within a population and identifying variation across care pathways that may be associated with low-value care. The provision of appropriate services can be a challenge within populations with complex healthcare needs and traditionally falls to rules-based care pathways. In this space, there is a need an an opportunity for predictive analytics to inform the optimal delivery of services.

The KenSci Utilization Management Solution can help you and your team accurately identify, predict, and mitigate risks associated with care utilization. Reducing these risks within your accountable patient population can improve health outcomes while reducing spend.

The Value of Machine Learning in Utilization Management

Machine learning can help prioritize and focus utilization management activities in a way that supports provider decision making and improves systems, ultimately reducing administrative overhead. The application of machine learning solutions to utilization management, which applies prudent criteria to the use and delivery of healthcare services, enables health systems to achieve the Quadruple Aim: improved care outcomes, increased patient and provider satisfaction, and reduced waste.

A central focus of utilization management is minimizing cost and quality variation due to differences in provider practices, while still accounting for accessibility and appropriateness of care factors. This variation can be identified, managed, and reduced with significant gains in health outcomes and cost savings. Variation insights reveal which segments of providers, services rendered, and conditions treated are responsible for the most anomalous resource utilization without commensurate benefits in outcomes.
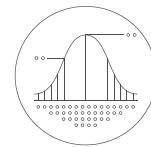
KenSci helps your health system:

Identify high utilizers of acute care services (both members and clinicians with high utilizing members).

Identify rising risk and chronic disease cohorts.

Identify unwarranted variation in service delivery, costs, and other pivots across your health system.

Variation insights related to utilization management include detecting anomalies in:

- High cost and high volume procedures that are preference-sensitive & supply sensitive.
- High volume, low cost diagnostics and procedures.
- Ambulatory sensitive conditions admissions and avoidable ED visits.
- Preventable and avoidable hospital readmissions.
- Pharmacy pricing and prescribing.

Operationalizing Machine Learning in Utilization Management

The KenSci Utilization Management solution lives aboard a secure, enterprise machine learning platform. This platform views and integrates your data for patient encounters, provider and facility information, pharmaceutical details, and claims. Using static data, KenSci data scientists apply existing machine learning models and tune them to your patient population. Based on your selected insight(s), multiple machine learning models will be tested to determine which techniques prove most powerful on your data. Advanced statistical sampling techniques can be used to improve the quality of the training set.

These models can be seamlessly integrated into your end users' existing workflow, such as via a FHIR interface, to flag key results for internal review. When deployed into an operational setting, the models are able to predict and flag individual members, cohorts, or providers that signal opportunities to improve care delivery or reduce unwarranted variation. Additionally, KenSci's predictions of future resource utilitzation, costs and care outcomes set performance targets for your organization.

Early detection variances allow intervention to avoid suboptimal outcomes. Across your system, concurrent learning occurs around important KPIs variances and process modifications. KenSci's platform, including this solution, supports Utilization Management workflow and analytics and will assist you as your health system scales its capabilities to improve performance.

Studies estimate that inadequate, unnecessary, uncoordinated, and inefficient care and business processes are responsible for between 35-50% of the $3 trillion that the US spends each year on health care.[1]

The provision of appropriate services can be a challenge within growing accountable populations with complex healthcare needs.

[1] Brent C. James MD, Poulsen GP. The Case for Capitation. Harvard Business Review. 2016 [cited 2017 Aug 29]. Available from: https://hbr.org/2016/07/the-case-for-capitation

KenSci's risk prediction platform identifies population health risks, optimizes clinical outcomes and operationalizes efficiency across the care continuum, making healthcare more proactive, coordinated and accountable - fast.