



CASE STUDY

Utilization Management Tool = Fast, Intuitive System For Managing Audits with Extreme Accountability and Traceability

Background

Utilization management (UM) is the evaluation of medical necessity and the appropriate usage of healthcare services, procedures, and medical groups under the provisions of the applicable healthcare plan. It is usually performed by UM clinicians who have a comprehensive knowledge of the various UM components such as pre-certifications, moving patients into a higher or lower level of care, discharge planning, etc. They are also encouraged to reduce the length of hospital stays and decrease the use of high cost resources that may not be necessary for a particular treatment. The utilization review process is a multifaceted activity that requires a complex workflow in order to be performed efficiently.

It is customary for healthcare payers to conduct their own audit of the UM processes performed at the healthcare provider. This additional scrutiny offers an added level of assurance that the process is strictly followed, unnecessary inpatient days are avoided, and appropriate services are recommended or shifted to outpatient care.

Considering the array of activities, compliance statuses, and determination steps involved in this process, the challenge being faced by healthcare organizations is to effectively manage these activities while achieving an extreme level of accountability and traceability.

Many of the UM tools and software available on the market are designed to capture information, but lack the ability to provide a flexible and budget minded solution for the authorized end users to quickly customize the interface. Quick customization is essential for the users to accommodate the frequent changes in the guidelines, procedures, or adherence policies. Short turn around and low cost maintenance is also necessary.

When we started this project for our client—one of the nation's largest health insurance carriers—they were using an outdated Access database that was built over several years. Routine maintenance and application updates were difficult under this antiquated technology. The application was running on a desktop computer, and the nurses were not able to enter data at the client's locations. The nurses were also wasting time because the database ran slow, they were having difficulty inputting data, and often times had to enter the same data more than once.

Approach

MXOtech designed and developed a web-based application that is capable of keeping track of every component involved in UM auditing process. The application provides the users with a well-established workflow of audit visits notifications, comprehensive documenting capabilities, determination letters and scoring (measuring the pass/fail indicators). Also built into the application are the subsequent measures needed to rectify a failed audit, including a written action plan to correct items that did not meet the compliance requirements.

The system's excellent reporting features help tremendously with managing audits for a large number of medical groups. It provides real time information on current audit status, scoring performance indicators, identifies missing or incomplete entries, and color codes metrics that do not meet the benchmarks.

Healthcare organizations are challenged to effectively manage activities in UM process while achieving an extreme level of accountability and traceability.

Web-based application tracks of every component involved in the auditing process.





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Approach (continued)

A creative approach to developing the solution resulted in building a configuration module that allows authorized users—without any technical background—to restructure the application user interface (UI) on the fly and make it best fit a particular business need. This functionality includes rearranging/adding/removing auditing questions, making any portions of the survey required, such as sections of questions or individual items, creating new audits from a variety of templates, selecting only certain audits to be included in the scoring for a provider and much more. This tremendously increases the user adoption of a new system since it puts the user in charge to make changes on their demand.

Results

MXOtech replaced a slow, outdated system with a fast, streamlined, intuitive web-based application. The user-friendly application allows for nurses to navigate a complex system with ease and on their terms.

The UM auditing system stands out as a tool that positively impacts the sophisticated data collection process while also providing many benefits such as:

- Increasing productivity and efficiency for 7 nurses by 50% of their work week.
- Simplifying internal processes for the staff performing the audits
- Exceptional traceability and record keeping
- Calculating of KPIs
- Ability to flag underperforming entities
- Decision making capabilities for audit frequency based on provider performance
- Resource planning for the organization performing the audits
- Improving payer/provider relationship due to more timely feedback and opportunity to correct/appeal issues
- Flexible UI which supports low cost and on the fly modifications
- Managing of auditing workflows for a large number of providers

Method

Projects were developed through the Agile Software Development Process, with extensive creation of Use-Case scenarios.

Technology

Centralized Portal: A SharePoint portal is utilized for management of single point of entry and access to the application, document management and user security access

Application: Built on the MVC framework - one of the leading ASP.NET programming models. It is a lightweight (compared to traditional ASP.NET web forms) and highly testable framework. This approach ensured the best performance and user experience for the web based application considering the volume of data that flows through it.

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Flexible user-interface supports low cost and on-the-fly modifications.

