WellPoint, Inc.

IBM Watson enables more effective healthcare preapproval decisions using evidence-based learning

WellPoint, Inc. is an Indianapolis-based health benefits company whose affiliated health plans serve more than 33 million members through its subsidiary companies. With medical information doubling every five years, WellPoint saw an opportunity to apply the groundbreaking capabilities of IBM Watson™ in a way that could improve the quality and efficiency of healthcare decisions.

The need
According to the Institute of Medicine, 30 percent of the $2.3 trillion dollars spent on healthcare in the United States annually is wasted. While there are many factors contributing to this statistic, one step toward reducing waste is improving the utilization management (UM) process, which governs the preapproval of healthcare insurance coverage for many medical procedures. Improving response time, accuracy and consistency in the UM review process has been a goal of the entire industry. Attaining this goal is challenging, in part because of the volume of data that is analyzed in making UM decisions.

When WellPoint's affected health plans were looking for ways to enable providers to make healthcare decisions more quickly and consistently, WellPoint picked UM as a starting point. Its goals were to accelerate processing of physicians' treatment requests, save members' time and improve efficiencies in the approval process, while continuing to base UM decisions on medical evidence and clinical practice guidelines.

The solution
WellPoint teamed up with IBM® on a new approach to UM: using the cognitive system IBM Watson to provide approval suggestions to nursing staff based on clinical and patient data. WellPoint trained Watson with 18,000 historical cases. Now Watson uses hypothesis generation and evidence-based learning to generate confidence-scored recommendations that help nurses make decisions about utilization management.
Natural language processing leverages unstructured data, such as text-based treatment requests. Eighty percent of the world’s total data is unstructured according to IDC, and using traditional computing to handle it would consume a great deal of time and resources in the UM process. The project also takes an early step into cognitive systems by enabling Watson to co-evolve with treatment guidelines, policies and medical best practices. The system has the ability to improve iteratively as payers and providers use it.

“An extraordinary power of Watson is the ability to quickly analyze vast amounts of up-to-date scientific and clinical research and patient data, extracting the most relevant and personalized information to inform and assist decision-making,” explains Dr. Sam Nussbaum, WellPoint chief medical officer.

The project started with a pilot in which WellPoint used Watson for 1,500 real-life cases. Results were very favorable. Less than one year after beginning the pilot, WellPoint put Watson into its first live healthcare production environment at five provider offices. “The power of Watson to bring information and data together, [and] make it relevant where decisions are being made, turns it into knowledge at the point where it can make a difference,” says Lori Beer, WellPoint executive vice president.

The benefit
- Helps UM nurses make faster UM decisions about treatment requests
- Could accelerate healthcare preapprovals, which can be critical when treatments are time-sensitive
- Includes unstructured data in the streamlined decision process

For more information
To learn more about IBM Watson, please contact your IBM representative or IBM Business Partner, or visit the following website:
ibm.com/watson