HealthManagement
Promoting Management and Leadership

Volume 7 - Issue 2, 2012 HIT - Exhibitors @ RSNA 2010

IBM

Memorial Sloan-Kettering Cancer Center (MSKCC) and IBM have agreed to collaborate on the development of a powerful tool built upon IBM Watson in order to provide medical professionals with improved access to current and comprehensive cancer data and practices. The resulting decision support tool will help doctors everywhere create individualised cancer diagnostic and treatment recommendations for their patients based on current evidence.

The initiative will combine the computational power of IBM Watson and its natural language processing ability with MSKCC's clinical knowledge, existing molecular and genomic data and vast repository of cancer case histories, in order to create an outcome and evidencebased decision support system. The goal is to give oncologists located anywhere the ability to obtain detailed diagnosis and treatment options based on updated research that will help them decide how best to care for an individual patient.

The IBM Watson system gained fame by beating human contestants on the television quiz show Jeopardy! It can interpret queries in natural language and uses statistical analysis, advanced analytics and a powerful array of processors to search millions of pages in seconds and deliver evidence-based statistically-ranked responses.

MSKCC's world-renowned oncologists will assist in developing IBM Watson to use a patient's medical information and synthesize a vast array of continuously Memorial Sloan-Kettering Cancer Center (MSKCC) and IBM have agreed to collaborate on the development of a powerful tool built upon IBM Watson in order to provide medical professionals with improved access to current and comprehensive cancer data and practices. The resulting decision support tool will help doctors everywhere create individualised cancer diagnostic and treatment recommendations for their patients based on current evidence. The initiative will combine the computational power of IBM Watson and its natural language processing ability with MSKCC's clinical knowledge, existing molecular and genomic data and vast repository of cancer case histories, in order to create an outcome and evidencebased decision support system. The goal is to give oncologists located anywhere the ability to obtain detailed diagnosis and treatment options based on updated research that will help them decide how best to care for an individual patient. The IBM Watson system gained fame by beating human contestants on the television quiz show Jeopardy! It can interpret queries in natural language and uses statistical analysis, advanced analytics and a powerful array of processors to search millions of pages in seconds and deliver evidence-based statistically-ranked responses. MSKCC's world-renowned oncologists will assist in developing IBM Watson to use a patient's medical information and synthesize a vast array of continuously updated and vetted treatment guidelines, published research and insights gleaned from the deep experience of MSKCC clinicians to provide an individualised recommendation to physicians. The tool will also provide users with a detailed record of the data and evidence used to reach the recommendations.

The need for such an advanced technology arises from the steadily increasing complexity of oncology treatment. Cancer is not one disease but some hundreds of sub-types, each with a different genetic fingerprint. Significant discoveries in molecular biology and genetics in the past two decades have delivered new insights into cancer biology and strategies for targeting specific molecular alterations in tumours, but these advances have also ratcheted up the complexity of diagnosing and treating each case. Oncologists and physicians who do not specialise in specific sub-types of cancer face a significant challenge in keeping up with the magnitude of rapidly changing information.

"This comprehensive, evidence-based approach will profoundly enhance cancer care by accelerating the dissemination of practice-changing research at an unprecedented pace," said Dr. Mark G. Kris, Chief, Thoracic Oncology Service at MSKCC and one of the clinicians leading the development effort. He noted that 85 percent of patients with cancer are not treated at specialised medical centres and it can take years for the latest developments in oncology to reach all practice settings.

Development work is already underway for the first applications, which include lung, breast and prostate cancers. The objective is to begin piloting the solutions to a select group of oncologists in late 2012, with wider distribution planned for late 2013. This collaboration complements an earlier announcement by IBM and Well- Point that the parties will focus on putting Watson to work on oncology solutions.

For more information, please visit: www.ibm.com

Published on : Mon, 27 Aug 2012