Parallel Sessions

PS12.2 Big Data Analytic 14:30 Room 423 & 424

Unlocking Evidence through Healthcare Text Mining

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Text is all around. Text fills up medical reports, consultation notes, and discharge summaries. These important clinician narratives are now routinely stored in Electronic Health Records (eHR); harnessing data by text mining could offer new opportunities for epidemiological research, clinical decision support, meta-analysis and observational research though advanced data analytics. We know that free-text narrative is invaluable clinical data, but its unstructured nature remains a key barrier for wide spread use in evidence based medicine.

In this presentation, we will review recent developments in applying text-mining in medical research, including automated harvesting of clinical concepts and events, clinical coding, and enhancing the accuracy and quality of other structured clinical data. We shall explore the potential to apply text mining to support clinical studies. We shall also highlight the main challenges, discuss our clinical-data scientist team approach in data and text mining, and our few attempts in free-text extraction using data captured for stroke outcomes and colonoscopy safety in the Hospital Authority Clinical Management System eHR.