Pattern Mapping for Cancer Prescription Process: A Case of Healthcare Operations in Government Administration in Thailand

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Abstract

This study identifies prescription variety in patients diagnosed with cancer in regional part of Thailand by mapping pattern of prescription diversities from health administrated guidelines. This study examines prescribing variability in patients diagnosed with cancer symptoms by mapping prescribing patterns from electronic medical records to understand the impact of prescribing differences on patients. This research showed how big data technology and cloud computing can be integrated and put into practice to meaningfully support the migration of data from local hospital databases to cloud databases. This proposal focuses on optimizing respective software performance and funding in actual cloud service deployments. This study can confirm that health services program decisions in the management of chronic diseases are influenced despite the prescribing guidelines provided. The lack of coordination of care has been cited as one cause of waste and inefficiency, especially when tests and services are repeated because their results are not communicated between providers. For cancer treatments, more than 1,000 preferred brand names and generic brands to treat chronic conditions are available in the market. The list is extended triple for non-preferred drugs which incurs researchers to define pattern of choices to prevent over-prescriptions and overdiagnosis. Most importantly, cost and profit made in compliance with drug choice may be made specific guidelines of health administered programs. A conjuncture is also given to researchers on how guidelines designate orders for prescriptions on multiple benefit plans. This study acquired data mining techniques to identify prescription patterns in health administered programs, and to clarify whether health insurance and benefit plans play role in changing the decision of drug choices. The results from this study suggest that ignorance of guidelines occurred more frequently in universal coverage scheme, however, physicians tend to override the prescription guideline for cancer and hypertension patients who enrolled in government benefit program. This study is able to support the notion that health administered programs may play role in determining drug options due to criteria in quality of treatment.

Keywords
Electronic medical records, healthcare operations, prescription pattern.

Biography
Praowpan Tansitpong is an Assistant Professor of Operations Management at NIDA Business School in Bangkok, Thailand. She was Director of Business the Regular MBA Program, Accelerated MBA Program, Flexible MBA Program. She received a Ph.D. in Operations Management from Lally School of Management and Technology, Rensselaer Polytechnic Institute, a Master of Science in Innovation Management and Entrepreneurship from Brown University, and a Bachelor degree in Engineering from Chulalongkorn University in Thailand. She is a former US-ASEAN Fulbright Visiting Scholar at School of Medicine, University of Washington. Her research interests are in the areas of Healthcare Operations, Health Analytics, and Product and Service Design in Operations/Marketing Interface. Dr. Tansitpong has published journal publications in Operations Management Research, International Journal of Healthcare Management, Service Science, and Journal of Asia-Pacific Business.