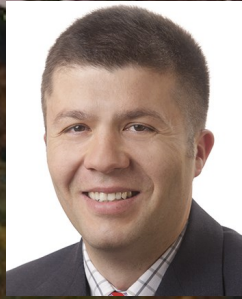


Mehmet A. Begen, PhD, CAP



Home Healthcare Scheduling: Applications and Challenges

Monday December 10, 2018 4:30PM in 1123 LBME

Home health care (HHC) has become popular and attracted substantial attention from researchers and practitioners due to its major advantages over traditional ways of treatment. One of the primary advantages of HHC is the quality of care. In HHC, a patient receives one-on-one attention, whereas in a typical health unit, a single staff is usually responsible for caring multiple patients. Another advantage of HHC is the cost. For example, cost to care terminally ill patients in an acute-care hospital is estimated to be 40% more expensive than cost of the same care in a hospital-based palliative-care unit and over 10 times more expensive than HHC. In 2012, over 2.2 million Canadians received some levels of HHC services. HHC has become a pressing issue for healthcare policy makers both in Canada and around the world, especially with an aging population. Providing a HHC service comes with many challenges. For example, caregivers travel times are significant as reports show that caregivers in the US have travelled twice the distance of UPS delivery drivers in 2010. One of the biggest challenges in HHC is to match caregivers and patients and come up with a good scheduled that is feasible, cost efficient and acceptable for medial and patient needs. One way to overcome these challenges is to use mathematical modelling and generate least costly schedules that will determine caregiver to patient assignments and routing of caregivers by considering constraints of the system. In this talk, we will describe the challenges and present of some of our projects in HHC scheduling.

This talk is based on joint works with Bahman Naderi, Gregory S. Zaric and Vahid Roshanaei.

Mehmet A. Begen is an associate professor of management science in the Ivey Business School at the Western University. Besides Ivey, he is cross-appointed at the departments of Statistical & Actuarial Sciences and Epidemiology & Biostatistics at the Western. Mehmet's research interests are management science/ analytics applications, data-driven approaches and in particular scheduling and operations management in healthcare. He is a Certified Analytics Professional (CAP), worked in management consulting before his PhD studies and is a recipient of Canadian Operational Research Society (CORS) Practice Prize. Mehmet is currently serving as the president of CORS and visiting Ross School of Business at the University of Michigan for his sabbatical.

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