

Case Averaging as a Tool for Operational Efficiency in GI Endoscopy

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Abstract

Colorectal cancer ranks third in both incidence and mortality and accounts for 8.6% of cancer diagnoses among Veterans in the United States. Colonoscopy is the most widely used screening test for colorectal cancer, but access to colonoscopy within the Veterans Health Administration is strained by limited capacity and is a barrier to providing timely colorectal cancer screening. As such, maximizing the efficiency of current resources is an important component of the Veterans Health Administration strategic plan. This paper will describe our efforts partnering with the Durham VA Medical Center to develop a discrete event simulation model of the GI endoscopy unit and use this model to drive systems redesign efforts within the unit. We will specifically discuss the development and implementation of a “case averaging” scheduling schema that we anticipate will improve physician productivity, decrease patient waiting time and improve patient and staff satisfaction.