International Journal of Population Data Science

Journal Website: www.ijpds.org

Linking lab, program, and administrative data to provide comprehensive colorectal cancer screening status of patients to primary care providers in Calgary, Alberta

Law, J¹, Viczko, J², Hilsden, R³, McKenzie, E¹, Watt, M⁴, Potestio, M¹, and McGregor, SE¹

¹Alberta Health Services

²Calgary Laboratory Services

³Forzani & MacPhail Colon Cancer Screening Centre

⁴Toward Optimized Practice - Alberta Medical Association

Introduction

Colorectal cancer (CRC) screening is associated with significant reductions in burden, mortality and cost. Primary care providers in Alberta do not have access to integrated CRC testing histories for patients. Providing this information will support CRC screening among patients at average and high risk, follow-up of abnormal tests, and surveillance.

Objectives and Approach

Calgary Laboratory Services, Colon Cancer Screening Centre, Alberta Cancer Registry, and endoscopy data were linked to create a comprehensive CRC screening history at the patient level. Based on screening histories and the current Clinical Practice Guideline, an algorithm was created to determine CRC screening statuses with the aim of providing accurate screening rates when linked to primary care provider patient panels. Results from the linkage are designed to be incorporated into clinic and EMR workflow processes to support adherence to evidence-based screening recommendations at the point of care.

Results

A comprehensive assessment of screening status was determined by integrating Fecal Immunochemical Test (FIT) and colonoscopy data. Among a sample cohort, patients were identified as being due for screening with FIT, requiring follow-up for a positive FIT test, or requiring appropriate surveillance for a positive-screen or abnormal colonoscopy findings. A summary report, actionable list, and resources were developed to convey findings. The summary report displayed CRC screening rates for a provider's panel. The actionable list provided CRC screening statuses for each patient aged 40 to 84 indicating patients due for screening with FIT, for follow-up of positive FIT, or for surveillance colonoscopy. The resources were developed to support quality improvement for colorectal cancer

screening for patients.

Conclusion/Implications

The data linkages and algorithm provide comprehensive CRC screening, follow-up, and surveillance information that could support guideline-adherent screening, increase screening rates, reduce duplication or unnecessary testing, and provide primary care providers with timely and robust information to support clinical decisions for individuals inside and outside of the target screening population.