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Title

Patient Stratification Scale for Population Care Management Strategy

Priority 1 (Research Category)

Population health and epidemiology

Presenters

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Abstract

Context: An effective clinic-based population care management program requires an accurate understanding of the complexity and care needs of the patient population. Patient empanelment is the assignment of patients to a provider and/or provider team. However, many patient empanelment methodologies are unidimensional, focusing solely on clinic use or disease state or severity, and do not address the wholistic care needs of the patient.

Objective: This study develops a Patient Resource Intensity Scale (PRIS) that includes three dimensions based on resource use, severity, and social determinants of health. The goal is to accurately categorize patients according to their care needs and develop care teams who can meet these needs.

Study Design and Analysis: Create and validate a patient stratification scale using a retrospective longitudinal analysis.

Setting, Dataset, and Population Studied: The study setting is a large primary care safety net system with 32 sites and over 100,000 patients. The dataset consists of all patients seen by the clinic over a 3-year period (2019-2021). Data were extracted from the electronic health record and the billing system.

Instrument: We developed the PRIS scale which incorporates three dimensions: 1) Chronicity/Severity; 2) Resource Intensity/Utilization; and 3) Social Determinants of Health.

Outcome Measures and Results: The PRIS scale was used to assign patients to four quadrants based on chronicity and resource use. Patients in each quadrant were then classified according to social

determinants of health (SDoH) risk. The findings indicate that approximately 83% of the patients were categorized into Quadrant 1 (low resource, low chronicity); approximately 16% in Quadrant 2 (high resource, low chronicity), and less than 0.7% are categorized in Quadrants 3 (high resource, low chronicity) and 4 (high resource, high chronicity) respectively.

Conclusions: Many population care management strategies rely on one dimension, such as total resource use or diagnosis, which often fail to address the complexity of the patient care needs. The PRIS scale developed in this study can be used to better serves the needs of the patient population. The study findings are used to develop interdisciplinary care team models based on patient needs.