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summary:

Chronic immunosuppression, diminished functional capacity, and concomitant comorbidities render the impact of vaccine-preventable diseases particularly devastating in individuals with rheumatoid arthritis (RA). At the same time, estimates of vaccination rates in this population are no better than in the general population, and may even be lower due to the increased complexity of care delivery for these patients. Additional challenges include contraindications to some vaccines among those receiving certain immunomodulators, and the need for appropriate timing of vaccine administration in relation to drug initiation in order to attain protective antibody levels.

Based on a baseline assessment of need at Columbia University Medical Center (CUMC), both vaccine delivery rates and the accuracy in documentation of the vaccinations received by our RA patient population are sub-optimal. Likely contributors to these sub-optimal levels are a general focus on specialty consultant care, higher overall disease severity and acuity among the RA population referred here, and ethnic/socioeconomic disparities. At the same time, RA patients in this setting may be at higher risk of adverse outcomes from infection due to population density, comorbidities, and economic disadvantage. These circumstances are not unique to our facility, but are shared by most large, urban, academic centers. Therefore, the development and testing of an effective intervention to increase vaccination rates within this high risk population is imperative, especially as access to all currently available RA immunomodulators is universal in the New York City metropolitan area for those with both public and private health care reimbursement. Several vaccination optimization initiatives are in place at CUMC, and increasing the rates of recommended vaccinations is a key quality improvement initiative for the coming decade.

Within this context, the overall goal of this quality improvement project is to develop and evaluate the effectiveness of a vaccination optimization program integrated into the out-patient clinical care delivery system for rheumatoid arthritis (RA) patients at a large, urban, tertiary-care medical center. The program to be developed and tested will operate in multiple domains to synergize the effects of provider-based education, a disease-specific electronic medical record (EMR) based information technology (IT) alert system, and support staff tracking and surveillance with the intent to increase vaccination rates within this vulnerable population.