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Background

Value-based populations benefit from targeted support during transition from acute care to home and long-term clinical teams. With coordinated support, patients can experience a smooth transition in this space. When identified needs exceed clinical health issues, transition support can go beyond nurse care managers to include social workers for behavioral health issues and community health workers to support solutions for social determinants of health.

As Spectrum Health moved into a significant percentage of lives in value-based care, an infrastructure for transition support became a key priority. In this new contracting structure, the system has freedom to address whole-person needs — clinical health, behavioral health and social health needs. Intentional system builds are needed to coordinate this team of providers across locations and settings of acuity.

Approach

The first population for inpatient transition was a Centers for Medicare & Medicaid Services Hospital Readmission Reduction Program population. Working out the technical and operational process on this small cohort served as a pilot. After seven months of pilot work, our team was ready to apply this 30-day support algorithm for 180,000 lives in the risk contracts.

A separate pilot population involved chatbot texts for follow-up on all emergency department visits. The engagement in this process matched our nurse-call outreaches in the first month of the program. The nurses could then focus on concerning answers that escalated out of the chatbot conversations. The text framework also allowed patients to self-serve health education topics on broad topics like anxiety, pandemic issues and mindfulness.

The current staffing for system care management includes robust embedded nurse care managers and social workers, but opportunity existed to increase system responsiveness to social determinants of health. This team was staffed and resourced to pay for patient solutions in transportation, disease monitoring, utilities, food and housing.

Outcomes

The team was challenged to identify half of the inpatient discharges who were at highest risk of transition failure. Using the artificial intelligence algorithm in the electronic health record, augmented by the status of each patient's primary care relationship, the team was able to isolate the highest 18% of risky discharges from a moderate-concern group of 22%. The remaining 60% were predicted to have a baseline risk of readmission. In further analysis, using the post-30 day utilization of these three groups, and using the lowest-risk population as the baseline utilizers, we determined that the moderate-concern group used twice the baseline number of readmission days. The highest-risk group used triple the number of baseline readmission days. This prediction algorithm is valid.

The Social Determinant response team has been a significant patient and provider satisfier. In the first four months of the program, over 200 patients have completed evaluation and solutioning. The volume of referrals to this program are growing each week. Partnerships with key community-based organizations continue to grow.

Lessons Learned

Triaging the population based on high, moderate and low degree of concern about their transition success was a key factor in supporting a successful transition. Identification started with an artificial intelligence tool, but research-based optimizations increased the correlation factor of patient triage significantly.

In order for these outreaches to gain engagement and a solid response rate, plans needed to include a fast timeframe for outreach and use methods convenient to patients — for example, text conversations the day after discharge, instead of land-line phone calls one week later.

Next Steps

The transition risk algorithm is robustly highlighting opportunity to provide at-the-elbow support for the highest-risk 40% of our population. In the next year, intervention on this population will allow data analytics on the outcomes of intervention to support a successful transition for this population.

This initial work focused on patients moving from urban care to urban homes and rural care to rural homes. Data tells us that 30% of Spectrum Health's acute inpatient care involves patients who move from urban care to rural homes. More work will occur to understand support relationships for patients traveling one to two hours back to rural homes for recovery. Issues like adequate broadband service and appropriate access to specialized clinical follow-up are issues to solve in this space.

Social determinant solutions are not available for every issue and in every county of our health system. Ongoing conversations will continue to grow these solutions. Recent health system focus includes focused interest on fitting homes for wheelchair accessibility, to allow people the opportunity to continue living in community-supported living environments.