Delivering Care to High-Cost High-Need Patients: Lessons Learned in the Development of a Complex Care Primary Care Team

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Abstract
As part of a population health-focused primary care transformation, in 2019 a health system in Minnesota developed a primary care team to exclusively care for high-cost high-need patients. Through its development and implementation, the team has discovered several key lessons in delivering care to complex patients. These lessons include the benefits of more integrative team-based care, the need and advantages of designated complex care team members, the importance of teamwork both within and outside of the complex care team, the need for frequent communication, and the importance of identifying mental health needs. In addition, there are several areas that require ongoing research and exploration, such as determining when a patient is able to graduate out of the program, how to enhance access to the complex care team, determining appropriate visit characteristics, and model feasibility. While addressing the needs of high cost high need patients is essential to improving quality of care and decreasing health care costs, there are several unique challenges and opportunities that come with caring for this patient population. Although this highly integrated model of care continues to evolve, the initial lessons learned may inform other health systems and care teams undertaking the care of complex patients.

Keywords
team-based care, interprofessional collaboration, complex care, care transformation

Background
It has been widely reported that about 5% of patients make up approximately 50% of health care spending.1 These patients are typically high utilizers of the health care system, have multiple chronic conditions, take multiple medications, and have complex social needs.2-4 Furthermore, in the primary care setting where provider visits are typically 20-minutes long, this is often not enough time to comprehensively address the needs of these complex patients.5-7 As health care moves from the traditional fee-for-service payment model to value-based payment, health care systems are being held accountable for both quality and cost of care.8 This has placed increased attention and importance on managing the health care needs of complex care patients that are both high-need and high-cost. One strategy that has been incorporated into many primary care models to improve quality of care is team-based care.9,10 However, providing care exclusively to complex care patients presents unique challenges and opportunities compared to team-based care provided in other populations. In this commentary, we share some of the key lessons and take-aways we have learned in the early stage development of a team delivering primary care exclusively for complex care patients.

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Complex Care Team Development

In May 2019, a health system in Minnesota, M Health Fairview, began implementation of a population health-focused primary care transformation. As part of the primary care transformation, primary care patients are placed into one of five strata, called “service bundles,” based on their complexity of care. The system uses a hybrid approach to put patients into service bundles—the electronic health record (EHR) automatically assigns patients to a service bundle based on pre-determined criteria, but providers, given their clinical judgment, can reassign patients to different service bundles. Currently, about 20% of bundle assignments are reassigned by providers. Service bundle 5 (SB5) represents the most complex, high-risk patients and are generally identified using the criteria outlined in Table 1. Many of these patients have more than 30 conditions, are taking over 20 medications, are frequently hospitalized, and have a high annual number of emergency department visits.

M Health Fairview comprises 10 hospitals and 40 primary care clinics. When the primary care transformation began, it was implemented in 2 pilot clinics—one with a patient population of about 23,000 and the other about 16,000—in the Twin Cities area, with plans to expand the transformation to all primary care clinics in the coming years. The 2 pilot clinics are located approximately 10 miles from each other and since relatively few patients meet the SB5 criteria (currently there are 96 patients in the program), the SB5 team was developed out of the larger of the 2 clinics. Patients from the smaller pilot clinic that meet SB5 criteria are then referred to the larger clinic to receive care by the SB5 care team. To date, 258 patients have had a primary care visit in the SB5 program.

In this new model of care, there is a designated core SB5 team (Table 2) that was developed considering the anticipated needs of this patient population. The team consists of a physician, nurse patient advocate and liaisons (PALs), pharmacists, a team coordinator, and a home care nurse for patients whose insurance provides home care nursing services. In addition, other services, such as diabetes education, behavioral health, and care coordination are included when necessary. The role of the team coordinator is to assist in scheduling patient visits, managing schedules of the SB5 team members, and coordinating care between the patient SB5 team members and outside clinics, if applicable. The SB5 home care nurse is funded by an outside agency that is contracted with the health system. For initial primary care visits, SB5 patients have 60-minute appointments where the physician, pharmacist, nurse PAL, and home care nurse all see the patient together and collectively create a care plan that is documented in the EHR. Follow-up encounters can last anywhere from 30 to 90 minutes, depending on the patient’s needs and reason for the visit. Following an initial visit, all care team members continue to contribute to the care plan and document patient communication in the EHR. For example, if the patient has a follow-up visit with the pharmacist, the pharmacist documents their encounter with the patient along with any medication changes that were made and this is routed to the provider. In addition, there is an SB5 workstation where all these individuals work when they are not providing direct patient care. Figure 1 outlines the workflow for an initial SB5 patient visit.

Key Lessons Learned

Through the development and implementation of the SB5 team, there have been several key lessons that have been learned:

**Heightened team-based care through team visits has many benefits**

One of the biggest strengths of the SB5 program is that visits occur as team visits. As a result, more can be accomplished in a single visit and having all team members present ensures that everyone is aware of the plan which facilitates continuity of care. For example, incorporating a pharmacist who performs comprehensive medication management (CMM) into the visit ensures that patients’ medications are optimized. Beyond medication reconciliation, the pharmacist identifies any medication-related problems (eg, if a dose is too low, if an additional medication is needed) and addresses them with the patient and care team. Including home care nurses during the visit has also been of great value as they are able to advocate for the patient and provide additional information during visits from their ability to see the patient’s home (eg, what prescriptions and supplements the patient has at home, mobility barriers the patient may have). Given the complexity of

### Table 1. Criteria Used to Place Patients into Service Bundle 5.

| Criteria                        | Value |
|---------------------------------|-------|
| Prospective risk score          | >5.2  |
| ≥7/year in primary care         |       |
| High emergency department visits | ≥3/year |

### Table 2. Core SB5 Team.

| Role                      | Full-time equivalents (FTEs) |
|---------------------------|-----------------------------|
| Clinic nurse PALs         | 2                           |
| Home care nurse PAL       | 0.8                         |
| Pharmacist                | 1                           |
| Physician                 | 1                           |
| Team coordinator          | 0.2                         |

*Note: Should be read as: “≥7/year in primary care” or “≥7/year anywhere in the system or ≥6/year in primary care”*
these patients, there are often numerous changes that occur during care planning. Having home care nurses present in the visit, they are aware of the care plan and can ensure that necessary steps are executed. In addition, the clinic nurse PALs have been instrumental for pre-visit planning, conducting follow-up calls and helping patients address any barriers, and responding to patient messages and phone calls. Patients are provided with a direct phone number to the SB5 team and many also frequently use MyChart to communicate questions and progress in their care. The PALs have been key to providing timely responses and are often patients’ first point of contact with the care team. Finally, while not part of the team visits, other care team members, such as mental and behavioral health providers, diabetes educators, and care coordinators have been integral to caring for these patients. This is consistent with other models of care that have demonstrated benefits of highly interdisciplinary teams working together to care for complex patients.13

Figure 1. Complex care team workflow for initial visits.

There is a Need for Dedicated SB5 Team Members

Having care team members that work solely with the SB5 patients has also been critical. When the model initially rolled out, primary care physicians would alternate working on the SB5 team 1 week at a time. However, to provide continuity of care, build patient-provider trust, and develop the SB5 program, it was quickly learned that a designated SB5 provider was essential. In addition, having one or more providers available and trained on SB5 workflows is necessary to provide coverage when the SB5 provider takes time off. It is also important to have designated nurses, home care nurses, and pharmacists dedicated to the care of these patients so that not only do patients and care team members know who to contact if they have questions or concerns, but the care team is well informed of the health needs and care plan of these patients. This is also necessary for increasing accessibility to primary care for these patients so that they can easily contact someone from the care team to avoid potentially unnecessary visits to the emergency department. Finally, given the logistics of scheduling multiple care team members in the same visit, a designated team coordinator to assist in scheduling visits has been highly beneficial to ensure consistent communication and coordination.

Teamwork, Both Within and Outside of the SB5 Care Team, is Essential

With multiple care team members in the visit at the same time, the need for teamwork and coordination is critical. For example, with multiple care team members in the patient’s chart at the same time, there has been a need to clearly delineate who will be in charge of documenting certain pieces of the visit, ordering labs and putting in other orders, and developing the after visit summary. The need for clear and specific role descriptions is also essential to determine who will respond to which types of patient questions, who will communicate lab results to the patient, etc. Having a clear understanding of the various systems resources is also necessary to ensure patients are connected to appropriate resources, and to
avoid duplication—both of system resources and for patient experience. Clear communication and understanding improves both care team efficiency and patient clarity in understanding care team recommendations.

Additionally, because these patients often receive care outside of primary care, communication often occurs with hospitalists and specialists. Communication with these providers has been extremely important to ensure that the SB5 team is able to advocate for what the patient needs and to support transitions of care across the system.

**Frequent Communication is Needed Outside of Patient Visits**

For the team approach to work, continuous and clear communication among care team members is essential. Pre-visit planning, for example, in which the PAL contacts the patient before the visit to discuss any updates or concerns the patient may have has proven to be of great benefit to preparing for visits and agenda setting. This helps to ensure visits run more smoothly and efficiently and that an effective care plan is developed. In addition, every day begins with a huddle with the SB5 team to discuss patients on the schedule for the day. During that time, the team discusses the proposed plan of care to make sure nothing is missed and to determine what needs to be accomplished. In addition, having leadership support and dedicated time every week to discuss day-to-day issues and reflect on quality improvement initiatives is key to facilitating communication and advancing the SB5 program.

**The Ability to Identify Mental Health Needs is Critical**

Many of the SB5 patients have mental and behavioral health needs. Therefore, familiarity with conditions such as substance use disorder, posttraumatic stress disorder, major depression, etc. is critical for the SB5 team to recognize so that they can determine when to integrate behavioral health services. In addition, working closely with behavioral health and care coordination is necessary to encourage cohesive goals with the patient.

**Areas that Need Further Study**

While the SB5 team has been in operation for over a year and half and has weekly meetings to identify and address issues, there are still a number of areas which require further exploration:

**Graduating SB5 Patients**

There are criteria in place to determine if a patient should be in the SB5 program; however, determining when someone can “graduate” to a lower service bundle and therefore be seen by the main primary care team still needs to be tested to ensure patients do not move back up to bundle 5. Additionally, if a SB5 patient moves into a skilled nursing facility or hospice, determining what role the SB5 team will play in that transition still needs to be defined. The program has not been in place long enough to examine the effects of when a patient moves out of the program, but it is something the team continues to consider.

**Access to the SB5 Team**

For patients with mobility issues or limited transportation, access to the SB5 team may be a challenge. Therefore, ideas for how to deliver this model of care to rural communities and alternative care delivery strategies, such as making the program mobile and exploring technology options for virtual team visits, are still being explored.

**Determining Appropriate Visit Characteristics**

While 60-minute visits offer the opportunity for multiple team members to provide care collectively and comprehensively, 60-minute visits can be difficult for some patients to remain engaged. Therefore, further exploration is needed to determine if shorter, more frequent visits or standard 60-minute visits produce better outcomes and engagement. Also examining when certain care team members should be included in the visit and for which types of patients is currently under consideration. Lastly, determining the appropriate panel size for the team to ensure that they have adequate time for pre-visit planning, patient visits, and following up with patients will require further time and study.

**Model Feasibility**

While this model of care is ideal for a value-based payment landscape, coverage and payment for value-based services often varies from payer to payer. For example, some SB5 patients’ insurers do not cover beneficial services, such as home care nursing. Therefore, to provide patients with the necessary resources and services they need, while at the same time ensuring patients are not limited by the costs of the program, a formal model evaluation that includes an assessment of the patient experience, quality indicators, and health care costs is needed to effectively make the case for this team-based primary care model.

**Conclusion**

Addressing the needs of complex care patients in the primary care setting is essential to improving quality of care and decreasing health care costs. However, given the complexity of these patients and the complexities of delivering
effective team-based care, there are many unique challenges that emerge, as well as areas for further research. Based on our experience, our team has found this to be very professionally rewarding and has strengthened our respect and understanding for the need for interdisciplinary services. While this highly integrated model of care continues to evolve, these lessons provide key insights into complex care team development and may inform other health systems and care teams undertaking the care of complex patients.

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