CREATIVITY OVER CAPITAL: USING QI TO ENSURE ACCESS
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10.1136/bmjoq-2019-ihi.5

Background
In 2016, our patients waited 3–5 months to be seen at our rheumatology clinic. This delay resulted in bad outcomes for some patients. Using creative problem solving, without financial outlay, our team achieved and sustained significant gains.

Objectives
To improve the rate of appointments scheduled within 30 business days for patients requiring ongoing rheumatic care from 35% to 85%.

Methods
We used the Model for Improvement with aim statement and data management plan. We defined current
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Improving scheduled appointment date within 30 business days for referrals to Pediatric Rheumatology Clinic who require continuous care at Levine Children’s Specialty Center

Project Leader: Sheetal Vora, MD

Interventions
- Meet with referring providers at their offices or at all provider meetings to demonstrate tool use and have them re-demonstrate tool use
- Video production on how to obtain tool in EMR and how to use and where to place in note
- Use answerable to answer returned call from contacted family to schedule appointments
- Educate providers on viral, fever and joint pain rheumatology topics
- New single fax number located next to LCSC Coordinator
- Rheum RFI analysis of Rheum MD schedule to ensure appropriate # of available weekly visits
- Education of LCSC coordinator in triage process using tool
- RN and/or MD discuss at minimum every three days with LCSC coordinators to ensure reliability on use of tool to triage referred patient on when to be seen

Legend
- Potential Intervention
- Active Intervention
- Adopted/Abandoned Intervention

Revision Date: 10/8/2018

Global Aim
- Children with rheumatic conditions deserve efficient access to a pediatric rheumatologist. Timely access results in rapid treatment plans impacting short-term physical function, family stress level, and long-term health outcomes.

SMART Aim
- We will increase from 25% to 85% our rate of appointments scheduled within 30 BD for referred pediatric patients who require ongoing rheumatic care by June 2018.

Primary Driver
- Tool use by referring provider

Secondary Drivers
- Standardized referral and triage process
- Appointment availability
- Empowered front line staff
- Clear communication within care team, as well as with family
- Central location to receive referrals
- LCSC coordinator has capability to triage referrals
- Timely contact with family to secure appointment date

Population
- Referred pediatric patients ≥18 years of age to Levine Children’s Specialty Center Rheumatology Clinic
state with baseline data, root cause analysis, and surveys to identify common and impactful failures. A Key Driver Diagram defined leading factors. Run charts and later SPC charts captured change over time. A communication board displays ongoing work; weekly huddles evaluate progress and barriers.

**Results** We met and exceeded goal since in 12/2017. We have sustained our improvement with an average of 92% as of 06/2019. This work also helped decrease time from referral to consult for all clinic referrals from 65.4 business to 21 business days. Additionally, this project helped our clinic lower no-show rates from 15% to 6% making it the lowest rate for the entire Specialty Center. Furthermore, it helped increase patient volume by an average of 30 more patients per month starting 07/17 and $375,000 increased revenue even before factoring in additional downstream revenue. During this period, patient satisfaction scores reached 93–100%.

**Conclusions** Standardizing, empowering the care team, and improving communication across primary and specialty care brought relief to over 800 families, connecting suffering children with the right care at the right time.

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### THE MULTIPLE SCLEROSIS CONTINUOUS QUALITY IMPROVEMENT COLLABORATIVE (MSCQI): INTERIM RESULTS OF THE 3-YEAR MULTI-CENTER PROSPECTIVE STEP-WEDGE RANDOMIZED RESEARCH STUDY

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**Background** MS-CQI is the first multi-center, randomized research study aiming to improve population health outcomes for people with multiple sclerosis (MS) using quality improvement (QI).

**Objectives** (1) benchmark performance and study variation in utilization and outcomes; (2) provide performance feedback to MS centers; and (3) compare effectiveness of QI versus usual care controls on improving outcomes.

**Methods** Four centers are participating following approximately 5,000 people with MS. We collect 21 Patient Reported Outcome Measures (PROMs) and 11 Electronic Health Record (EHR) measures. System-level de-identified EHR data is collected for all clinical encounters. Individual-level PROM data is collected from participants who consent. Centers are randomized to QI or usual care following a step-wedge randomized design beginning in Year 2.

**Results** MSCQI has recently completed Year 2. At the end of Year 1, EHR n=2,755 encounters, and PROM n=269 individuals (tables 1–3). There is significant variation in EHR findings, including proportion of patients on disease modifying therapy (DMT), MRI, ED, hospitalizations, urgent care, and relapses (table 2), as well as PROM findings (table 3) including depression, fatigue, cognition, sleep, communication, and work-related impairment. In Year 2, the first center (Center C) was randomized to QI. Center C has higher average depression and fatigue severity than the Collaborative, but has realized a reduction in quarterly relapse rate since beginning QI intervention in Quarter 4 (figure 1).

**Conclusions** MSCQI has succeeded in benchmarking system-level variation and has begun studying outcomes of QI intervention versus usual care. MSCQI has potential to improve...