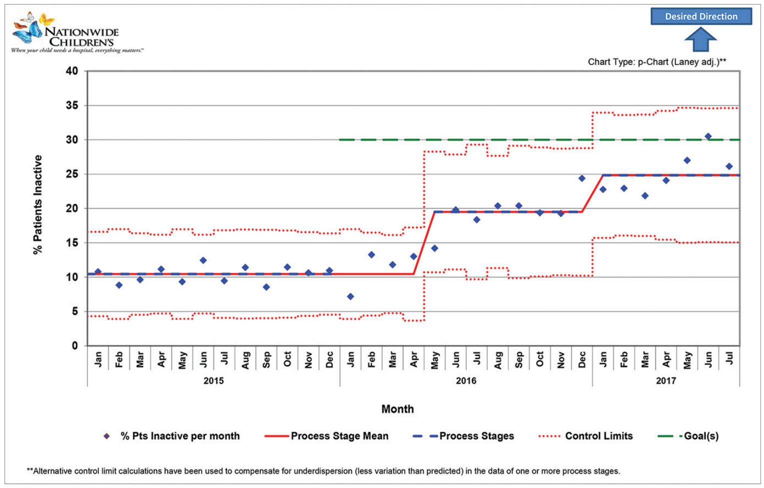

# JIA Pts with Inactive Disease	22	16	21	26	17	29	18	21	16	22	22	24	13	28	28	22	26	40	27	43	31	31	32	40	46	50	47	46	47	54	46
# JIA Patients	204	181	218	233	182	233	190	184	187	192	207	219	181	211	237	169	183	202	147	211	152	160	166	164	202	218	215	191	174	177	176

Abstract 904 Figure 1 % JIA patients with inactive disease

904 ACHIEVING INACTIVE DISEASE IN JUVENILE IDIOPATHIC ARTHRITIS PATIENTS

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10.1136/bmjoq-2017-IHI.10

Background Nearly 300000 children in the US with Juvenile Idiopathic Arthritis (JIA) suffer from chronic pain, swelling and stiffness of joints, which impact their quality of life. Appropriate and aggressive treatment can minimise symptoms and slow further damage to joints, preserving function and agility.

Objectives To increase the percentage of patients who presenting to clinic with inactive disease from 11% in 2015 to 30% by December of 2017.

Methods A KDD was used to identify barriers and to develop disease management strategies. The most effective interventions were initially centred around educating parents and patients on disease management, pre-visit planning and provider data entry. These interventions led to the first statistical shift. Next, providers worked through Patient Global Assessment (PGA) and population management exercises. This standardised disease activity level scoring and allowed providers to challenge each other regarding optimal care of patients. This led to the second statistical shift.

Results During the baseline period (January 2015-May 2016), only 11% of over 3000 patients were inactive. Disease activity decreased during the remainder of 2016, where 20% of 1385 patients were inactive (p-value=0.000). As population management took effect, another shift in data occurred in January of 2017, resulting in 25% of 1353 patients have no disease activity (p-value=0.000).

Conclusions These strategies have proven to be successful in improving the disease activity level of patients. Entering a state of inactive disease motivates providers to continue these efforts as their patients' quality of life improves.

911 OPTIMISING SYSTEM-LEVEL PAEDIATRIC DISCHARGE EFFICIENCY

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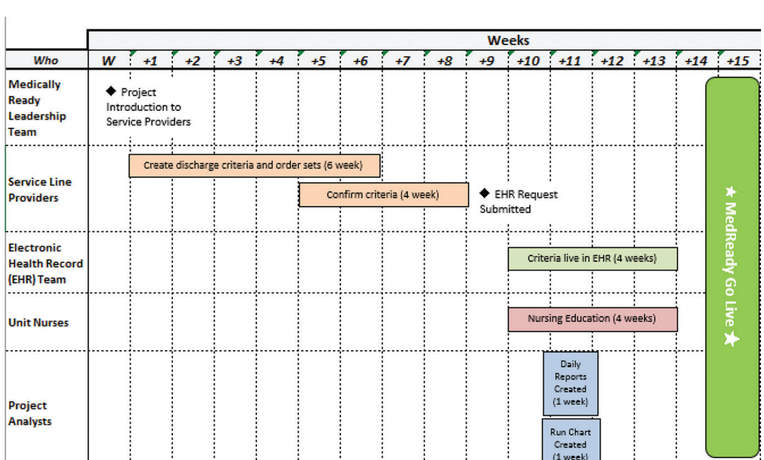
10.1136/bmjoq-2017-IHI.11



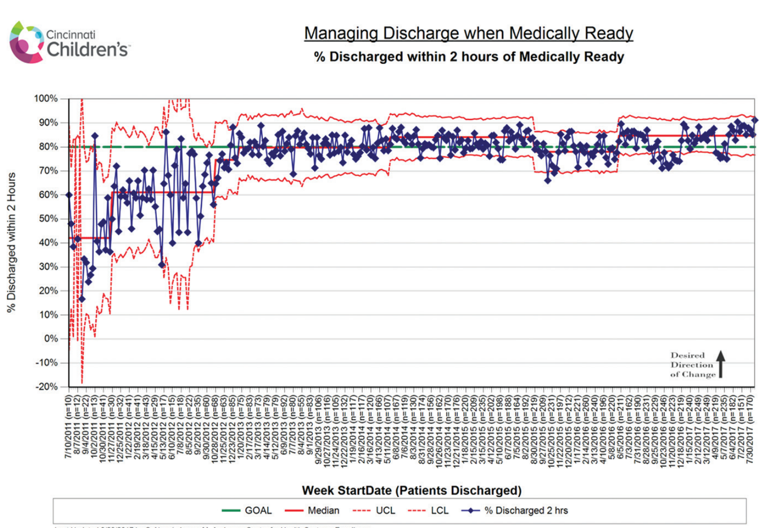
Abstract 911 Figure 1 Implementation timeline

Background Optimising system-level hospital flow improves patient care, patient/caregiver experience and provider satisfaction by allowing patients to receive timely and appropriate care. In prior work, our team implemented a novel discharge process in hospital medicine patients focusing on diagnosis-specific medical discharge goals and successfully increased the percentage of patients discharged within 2 hours of meeting those goals from 42% to 80%.

Objectives Increase the percentage of acute care patients, hospital-wide, whose discharge process centres around medical goals from 25% to 90%.

Methods Key drivers included staff engagement in discharge preparedness, implementation package availability, and data transparency. Our primary measure was the percentage of acute care patients whose discharge medical goals were documented, condition-specific, and continuously updated. We also tracked the

Abstract 911 Figure 2 Specific team progress



Abstract 911 Figure 3 Percentage of patients who are discharged within 2 hours of meeting medical goals*.
*Patient are only included in this measure if they have physician orders that document their medical goals for discharge and if the bedside nurse documents a time when they have met their medical goals

progress of individual medical and surgical teams throughout the implementation timeline (Figure 1). Our secondary outcome measure was the percentage of patients discharged within 2 hours of meeting their medical discharge goals.

Results The percentage of patients whose discharge process included medical goals increased from 25% to 76% in 3 years. The progress of individual teams is displayed in Figure 2. For patients who followed the process, the percentage of patients discharged within 2 hours of meeting medical discharge goals increased from 42% to 85% (Figure 3); however, this overestimates success, as patients are only included in this measure if all parts of the process are followed.

Conclusions We successfully spread discharge efficiency based upon medical goals to a majority of hospitalised acute care patients; however, we continue to identify improvement opportunities with process adherence.

916 EVALUATION OF A MULTIDISCIPLINARY CANCER CLINIC: IMPROVING TIME TO ONCOLOGY ASSESSMENT AND TREATMENT FOR PATIENTS WITH NEW LUNG CANCER

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10.1136/bmjoq-2017-IHI.12

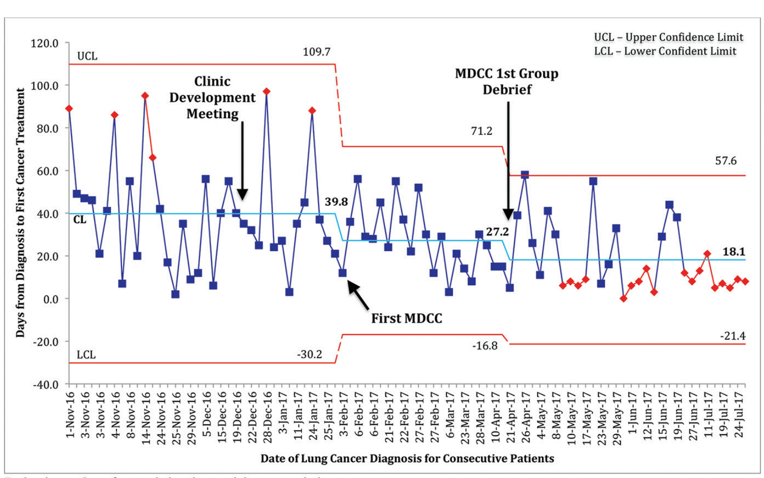
Background Delays in the management of lung cancer (LC) are associated with inferior outcomes. Multidisciplinary cancer clinics (MDCC) can improve timeliness and quality of care.

Objectives Decrease time from LC diagnosis to oncology assessment from 13 to 3 days, and to treatment from 30 to <20 days, within 6 months.

Methods We implemented a weekly MDCC, involving Respirologists, Medical Oncologists (MO) and Radiation Oncologists (RO), where patients with new LC diagnoses received concurrent oncology consultation. We retrospectively analysed data pre-MDCC (November 2016 – February 2017) and prospectively for improvements (February – July 2017). Improvement cycles included MDCC clinic launching and a debriefing/troubleshooting meeting. Data are reported as n(%), and means as per Statistical Process Control XmR(i) charts.

Results 117 patients (44 pre-MDCC, 73 post-MDCC) were analysed. Most patients had stage 4 (44, 37.6%) or stage 1 LC (32, 27%). All patients saw Respirology, in addition to MO (85, 72.6%), RO (113, 96.6%), or both (83, 71.0%). The proportion of treated patients was unchanged pre- vs. post-MDCC (88.6%, 85.4%). Mean days from diagnosis to oncology assessment decreased from 14.3 to 5.0 days. Time from diagnosis to first treatment decreased from 39.8 to 27.2 days after the first improvement cycle, and to 18.1 days after the second improvement cycle (Figure 1), with less variation in time to treatment after improvement events.

Conclusions MDCC shortens time from LC diagnosis to oncology assessment and treatment. Time to treatment improved more than time to oncology assessment, suggesting the improvement is likely related to benefits beyond just faster oncology assessment.



Red points = Out of control signals, special cause variation

Abstract 916 Figure 1 Effect of MDCC on time from lung cancer diagnosis to first cancer treatment

920 REDUCING CARDIAC ARRESTS IN AN ACUTE MEDICAL UNIT

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10.1136/bmjoq-2017-IHI.13

Background Cardiac arrests are often preceded by a period of physiological deterioration. Preventing cardiac arrests depends on reliable recognition of, and response to, those deteriorations. Our Acute Medical Unit was identified as having the highest number of cardiac arrests in the hospital in 2013/2014. Our baseline cardiac arrest was 4.3/1000 (October 2014 – February 2016).

Objectives The aim was to reduce our unit's cardiac arrest rate by over 50%.

Methods Process mapping exercises identified unreliable processes in the recognition and response to deteriorating patients. Pareto chart analysis (Figure 1) identified hypoxia as the most commonly missed cause of deterioration within the unit. The model for improvement and rapid cycle tests of change were used to develop standardise key clinical processes. Innovative multi-disciplinary learning from what went well, called 'Save of the Month', helped to identify good practice and develop pride in work.

Results The cardiac arrest rate showed 63% reduction from the baseline period; 4.3/1000 (October 2014 to February 2016) to