

A Multidisciplinary Clinic Efficiency Improvement Project

Presenter: Kelley Rose French

Quality Improvement Coordinator

frenchke@med.umich.edu



Alison Mascarenhas

UROP Student

alisonfm@umich.edu

Children's Intestinal Rehabilitation Program (ChIRP) Team

Dana Steien, MD

danastei@med.umich.edu

Megan Arnold, MD

meghanar@med.umich.edu

Luisa Partipilo, PharmD

luisap@med.umich.edu

Lola Rosewig, RD

lfreedma@med.umich.edu

Sarah Shell, SW

werners@med.umich.edu

Mary Beth Harris, RD

harrismz@med.umich.edu

Program Background

Multidisciplinary clinics like Michigan Medicine's ChIRP are becoming more common and necessary for complex patients.

Efficient care requires swift movement of all providers and a common understanding of workflow between providers.

Project Aims

Project aims: reduce the "initial downtime", or the time a patient waits for the first provider (figure 1), decrease the total clinic visit time without sacrificing quality of service (figure 2), and decrease the amount of time patients spend in the room without providers (figure 3).

Measurable Data

The project started in January 2017. Time was documented when providers entered and exited each patient's room. Timesheets were placed on clipboards with a watch. It is suspected the time a patient spends in a room may be affected by the number of: 1) providers in clinic, 2) physicians in clinic, or 3) patients in clinic.

Clinic Problems

Problem 1: The number of patients scheduled for clinic can range from one to eight. No-shows are common. The team would sometimes stay late, to check out patients, even if few patients came to clinic. This issue required the development of some "time awareness".

Problem 2: Clinic flow with five to six providers can be challenging. If a single provider sees every scheduled patient later in the clinic session, other patients have to wait. This increases their "patient total clinic time" and "time in room without a provider".

Clinic Interventions

- Pre-Intervention: Old process for ChIRP team, only data collection by QI coordinator
- 1st Intervention: Data collection timesheet for providers, write times both IN and OUT times of patient rooms on a timesheet.
- 2nd Intervention: Data collection timesheet plus provider workflow (see figure at right)

Order A	PharmD	RD	RN	MD	SW	AVS	RD
Order B	SW	PharmD	RD	RN	MD	AVS	RD
Order C		RD	MD	SW	PharmD	RN	AVS
Order D	SW	PharmD	RD	RN	MD	AVS	MD

Results & Outcomes

Essential Components

Figure 1: Median Initial Downtime and Number of Patients per Clinic Day

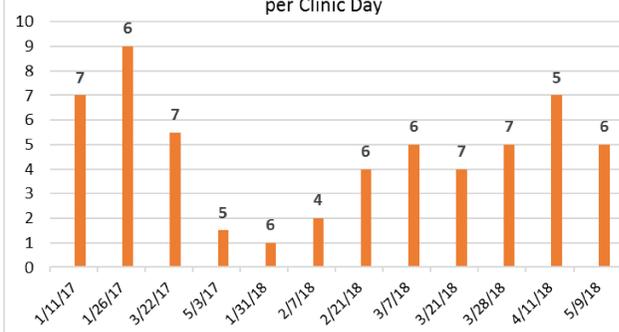


Figure 2: Median Patient Total Clinic Time

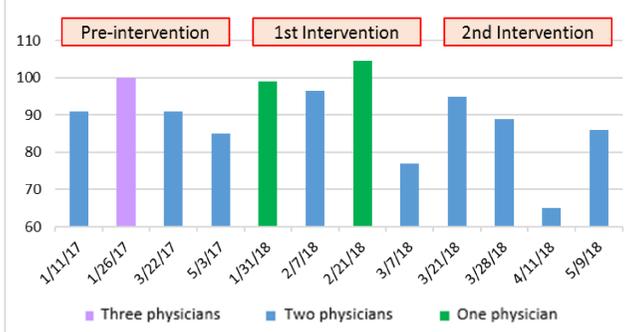
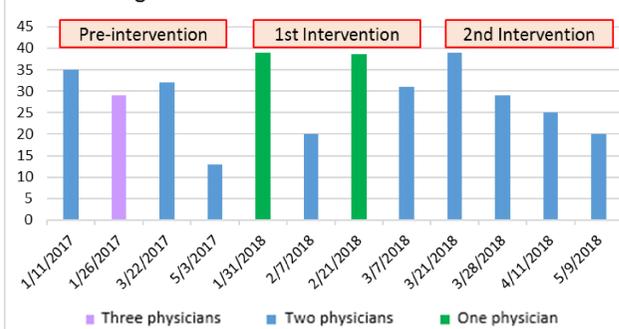


Figure 3: Time in Room Without Provider



There is not enough data to make a concrete statement that a clear improvement in the ChIRP clinic process is made, but Figure 2 and Figure 3 show some promising trends with the 2nd intervention that may indicate a permanent change in the clinic efficiency, resulting in a more successful improvement project.

This is the first QI project conducted by the ChIRP team. Essential components that helped create a successful project include:

- Communicating responsibility changes before new intervention implementations for each team member involved.
- Getting feedback from providers about each implementation used.
- Maintaining organized spreadsheets with de-identified information.
- Utilizing valuable resources the University offers.
- More interventions will be implemented in the hopes to create the most efficient clinic possible.

Next Steps

Each provider is creating a list of roles and responsibilities for their position during clinic. This responsibilities checklist sheet is being created for use during clinic visits as another PDSA ramp. It should help providers avoid overlapping questions with patients, and allow essential information to flow between team members for coordinated decision-making and communication. More data from 2017 and 2018 will need to be analyzed in order to determine which intervention(s), if any, creates a more efficient clinic for both providers and patients.

Patient satisfaction may be another outcome study, which may improve with more clinic efficiency.