

Quality Improvement in Transition: The Effect of a Transition Coordinator

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Problem Background

Between 2014 and 2016 the UNC CF Center participated in the ONECF LL2. During those years, the Center created a transition program to help patients improve self-management of their disease, improve patient understanding of the medical system, and transition cystic fibrosis (CF) patients from pediatric pulmonology to adult pulmonology. This included implementing the CF R.I.S.E. program. CF R.I.S.E. is an online, goals-based program designed specifically to help prepare young adults with CF transition to adult care.

In order to sustain the program and translate the work to other pediatric subspecialties, in 2016 the Center leaders sought to hire a Quality Improvement Coordinator, who would have primary responsibility of implementing the new program and tracking outcomes.

Goals

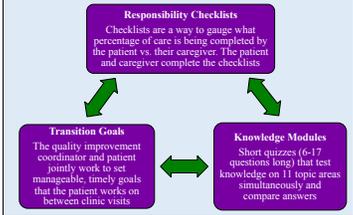
We aimed to improve transition process for adolescents with cystic fibrosis at UNC by creating a sustainable, streamlined, planned approach to transition. We expected this to decrease the number of delayed transitions, improve health literacy for patients, and improve both patient and provider satisfaction.

- To do this we will:
- > Hire a transition coordinator to oversee CF transition
 - > Streamline and formalize the transition process from the pediatric clinic to the adult clinic
 - > Write a transition protocol
 - > Enroll $\geq 90\%$ of eligible patients ages 16+ in CF R.I.S.E. by July 1, 2017
 - > Complete $\geq 60\%$ of CF R.I.S.E. knowledge modules
 - > Increase scores by $\geq 20\%$ for CF R.I.S.E. knowledge module retakes
 - > Transition $\geq 30\%$ of eligible patients to the adult clinic each year

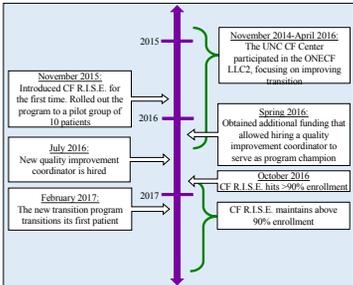
What is CF R.I.S.E.?

CF R.I.S.E. is a free, online program available to any center that cares for patients with CF. It aims to prepare young adults to transition to adult care. The program focuses on gaining knowledge, building skills, taking responsibility for daily CF care, and setting and meeting goals.

The Three Cornerstones of CF R.I.S.E.:



Timeline



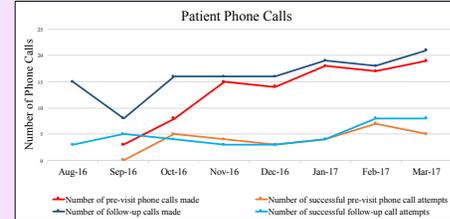
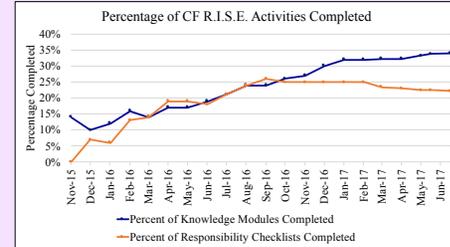
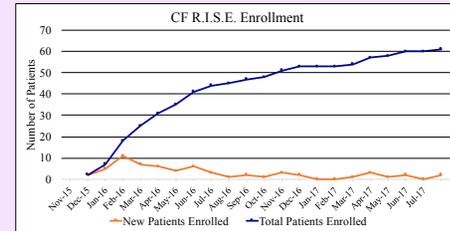
Interventions

Problem	Background	Intervention	Result
<i>Transition was not a routine part of care</i>	Transition was not a routine part of care and responsibility for the program was diffused among the team so CF R.I.S.E. was distributed unevenly, or not at all.	In June 2016 the UNC CF Center hired a quality improvement coordinator to oversee transition, meet regularly with patients, make transition a routine part of patient care, and act as a champion for transition overall.	After a few months, transition became a normal part of clinic and was integrated into clinic flow.
<i>Staff did not have enough for CF R.I.S.E. or other transition activities</i>	Due to a high patient volume (350+ pediatric patients and 280+ adult patients) staff workloads were full, leaving little for transition. Staff were unable to regularly or meaningfully engage patients in CF R.I.S.E., or track patient progress.	The quality improvement coordinator took over responsibility for all transition-related activities. The coordinator oversaw patient transitions, implemented CF R.I.S.E. with both outpatients and inpatients, tracked transition-related data, and documented in the medical record.	Engagement has increased dramatically. Transition is now a routine part of care, and has been well-received by the majority of patients and families.
<i>Adding a transition program to clinic lengthened visits</i>	Adding transition into clinic for all patients over the age of sixteen meant that clinic visits were longer, which frustrated patients and held up exam rooms.	Patients used iPads to work on CF R.I.S.E. activities in the "down time" between seeing care team members during clinic visits. Near the end of the visit the quality improvement coordinator would meet with patients to go over their results.	Utilizing down time, which used to be empty time, added value without adding undue burden to clinic visits.
<i>Lack of support between outpatient clinic visits</i>	Patients forgot about CF R.I.S.E. goals between visits, stalling progress and delaying transition-readiness.	Quality improvement coordinator called patients within one week after their clinic visit to follow-up on CF R.I.S.E. Ultimately, calling after visits proved unsuccessful as most patients were busy with school and afterschool activities during office hours.	This initiative failed and was abandoned in March 2017.
<i>Patients kept forgetting CF R.I.S.E. password, causing delays during outpatient appointments.</i>	Patients kept forgetting CF R.I.S.E. password, causing delays during outpatient appointments.	Intervention #1: the quality improvement coordinator called patients ahead of their appointments to remind them to bring their CF R.I.S.E. login information. This intervention ultimately failed, and necessitated intervention #2.	This intervention failed and was abandoned in March 2017.
<i>No formal transition system for the patient hand-off</i>	The process for transitioning a patient to the adult center varied considerably from patient to patient due to a lack of guidelines or a formal process.	Intervention #2: have patients program their CF R.I.S.E. login information into their cell phones, or stored in another secure location that was easily accessible during clinic visits.	Patients rarely forget their passwords and visits generally run much more smoothly.
<i>Poor communication between the pediatric and adult teams</i>	Communication consistently broke down without an organized transition process or clear lines of communication.	The quality improvement coordinator facilitated the creation of a standardized transition protocol, written jointly by the pediatric and adult care. It was implemented in April, 2017.	Since implementing the protocol patient hand-offs have gone smoothly and communication among the pediatric and adult teams has improved.
		The pediatric and adult care teams set up a monthly joint meeting to discuss transition and other cross-clinic issues. At the meeting we discuss upcoming transitions, match pediatric patients with an adult provider, review recent transitions, and designate communication point-people.	The new communication system works well and has been embraced by both the pediatric and adult teams.

Data

As of Month	CF R.I.S.E. Engagement									
	Knowledge Assessments					Responsibility Checklists				
	New Patients Enrolled	Total Patients Enrolled	Total Assessments Available	Completed Assessments for Month	Assessment Completion Rates to Date (Cumulative)	Total Checklists Available	Completed Checklists for Month	Completed Checklists (Cumulative)	Checklist Completion Rates to Date	Checklist Completion Rates to Date
Nov-15	2	2	22	3	14.0%	12	0	0	0.0%	0.0%
Dec-15	5	7	77	5	8.100%	42	3	3	7.0%	7.0%
Jan-16	11	18	198	16	8.100%	108	3	6	6.0%	6.0%
Feb-16	7	25	275	20	7.273%	150	14	20	13.0%	13.0%
Mar-16	6	31	341	5	1.481%	186	6	26	14.0%	14.0%
Apr-16	4	35	385	15	3.923%	210	13	39	19.0%	19.0%
May-16	6	41	451	13	2.902%	246	7	46	19.0%	19.0%
Jun-16	3	44	484	17	3.843%	264	2	48	18.0%	18.0%
Jul-16	1	45	495	12	2.424%	270	10	58	21.0%	21.0%
Aug-16	2	47	517	18	3.481%	282	10	68	24.0%	24.0%
Sep-16	1	48	528	4	0.758%	288	7	75	26.0%	26.0%
Oct-16	3	51	561	18	3.200%	306	3	78	25.0%	25.0%
Nov-16	2	53	583	12	2.058%	318	2	80	25.0%	25.0%
Dec-16	0	53	583	16	2.916%	318	0	80	25.0%	25.0%
Jan-17	0	53	583	14	2.401%	318	0	80	25.0%	25.0%
Feb-17	1	54	594	5	0.921%	324	0	80	25.0%	25.0%
Mar-17	3	57	627	9	1.579%	342	0	80	23.4%	23.4%
Apr-17	1	58	638	4	0.627%	348	0	80	23.0%	23.0%
May-17	2	60	660	13	1.970%	360	1	81	22.5%	22.5%
Jun-17	0	60	660	4	0.606%	360	0	81	22.5%	22.5%
Jul-17	2	61	671	5	0.747%	366	0	81	22.1%	22.1%

Knowledge Assessment Topic	CF R.I.S.E. Knowledge Module Retakes					
	First Score Average	Last Score Average	Percent Improvement to Date	All Time National Average scores (as of July 2017)	Number of Retakes Taken	Percent Improvement for Retakes Only
CF Liver Disease (CFLD)	67	59	-11.9%	67	2	200%
CF-Related Diabetes (CFRD)	84	84	0.0%	86	0	---
College & Work	78	78	0.0%	82	0	---
Equipment Maintenance & Infection Control	87	87	0.0%	89	0	---
Female Sexual Health	90	89	-1.1%	90	2	13%
General CF Health	88	88	0.0%	90	1	25%
Insurance & Financial	73	71	-2.7%	71	1	54%
Lifestyle	88	88	0.0%	91	0	---
Lung Health & Airway Clearance	84	84	0.0%	88	3	5%
Male Sexual Health	93	88	-5.4%	86	1	41%
Pancreatic Insufficiency & Nutrition	76	74	-2.6%	75	2	31%
Screening & Prevention	81	79	-2.5%	75	1	42%
All Knowledge Assessments	83	81	-2.4%	82	13	37%



Results

Goals	Met?
Hire a quality improvement coordinator	✓
Streamline and formalize the transition process	✓
Write a transition protocol	✓
$\geq 90\%$ enrollment in CF R.I.S.E. for patients with CF ages 16+	✓
Complete $\geq 60\%$ of available knowledge modules in CF R.I.S.E.	✗
Improve CF R.I.S.E. knowledge module scores by $\geq 20\%$ when retaken	✗
Transition $\geq 30\%$ of eligible patients to the adult clinic each year	✓

- > Over 95% CF R.I.S.E. enrollment has been sustained since October 2016.
- > Completion of CF R.I.S.E. knowledge module rose from 21% to 34% between July 2016 and July 2017. Patients can only complete 1-2 modules per visit, so progress is slower than expected. We are prioritizing modules moving forward in order to improve.
- > Completion of CF R.I.S.E. responsibility checklists dropped from 21% to 22%. In December 2016 we decided to have patients prioritize knowledge modules because we found they needed the knowledge in order to fully do the responsibility checklists.
- > The majority of patients, families, and providers have expressed positive views of the new focus on transition.
- > CF R.I.S.E. is now a standard part of care and is integrated into the outpatient clinic workflow.
- > All CF patients now go through a planned transition.

Lessons Learned

- > *Designate a transition champion*
 - > Having one person act as a point person for both clinics—and as a consistent face for patients—streamlined the program, increased efficiency, and relieved the workloads of other team members (nurses, psychologist, social workers, etc.) who had been undertaking transition-related activities.
- > *When dealing with teenagers, texting is better than phone calls*
 - > Teenagers, due to school hours and afterschool activities, are not often at liberty to speak during office hours. Additionally, most of our adolescent patients said they would rather text than talk on the phone.
- > *Create clear communication channels*
 - > Creating clear lines of communication is essential for success. Designating point people at both the pediatric and adult clinics streamlines communication and maintains investment.

Conclusions

Adding the quality improvement coordinator to the care team has proven an effective way to increase engagement among patients, integrate transition into the normal outpatient clinic workflow, and improve the transition program overall. The quality improvement coordinator streamlined workflow for other members of the care team by relieving the workloads of other staff members. Having a transition champion increased collaboration among the pediatric and adult teams, and provided consistency for patients and families. Overall, the initiative has been a success with patients, providers, and families.

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