Cincinnati Children's Hospital Medical Center

change the outcome

Cincinnati Children's Hospital Medical Center

Chronic Care Innovation Lab Monthly Project Report – October 2007 (Next update due 12/09/07)

Overall Project Aim: 1) To identify & understand the barriers to optimal clinical outcomes & experiences among adolescents with asthma from the patients' perspective, 2) To use the knowledge to improve their clinical outcomes & experiences, 3) to develop improved & innovative care methods, & 4) to spread successful innovative care methods to other chronic populations.

Population: Adolescents with chronic illness or condition

Key Measures, Goals, and Performance:

Key Measures	Baseline Data 09/01/06	Long-term Goal 12/31/08	90-Day Goal 12/31/07	Desired Change	Performance October 2007 (September 2007)
Clinical Outcomes & Experiences					
1 % asthma patients & parents that rate their confidence in their ability to manage their/their adolescent's asthma as 7 or better	n/a	95%	80%	↑	70.4% (72.5%)
2 % asthma patients receiving perfect care (condition characterized in chart, asthma action plan & appropriate controller meds prescribed)	38%	95%	90%	↑	97.5% (97.2%)
a) % asthma patients with condition characterized in chart	60%				100% (98.6%)
b) % asthma patients with asthma action plan	12%				95.9% (97.7 %)
c) % asthma patients with appropriate controller meds prescribed	80%				100 % (100%)
3 % administered satisfaction surveys rating us as providing "Best Possible Care"	55%	76%		↑	100% (66.7%)
4 % asthma patients with sub-optimal control or confidence who receive self-management coaching according to the guideline algorithm (see attached)	n/a	80%	70%	↑	16.7% (0%)
5 % asthma patients whose condition is well or completely controlled*	n/a	60%		↑	15.7% (15.1%)
6 % asthma patients with asthma-related					
a) ED visits		2%		↓	4.2% (0%)
b) Hospitalizations		1%		↓	0% (0%)
7 % asthma patients who received or actively declined a flu vaccine (seasonal, only run for October-March)	Previous flu season 72%			↑	1.3%
Development of Improved & Innovative Care Methods *(Under Development)*					
8 # of improved & innovative methods identified & learned	0			↑	
9 # of improved & innovative interventions tested using PDSAs	0			↑	
Spread of Successful Improved & Innovative Care Methods *(Under Development)*					
10 % improved & innovative interventions spread to other chronic care populations	0			↑	
11 % clinics using the spread interventions	0			↑	

* well or completely controlled is defined as experiencing symptoms during the DAY less than 3 days per week, experiencing symptoms during the NIGHT less than 3 nights per week, using fast acting or quick relief medication at times other than before exercise less than 1 time per week, not having your asthma limit your activities at all & missing no school or work days due to your asthma.

Note: Data is on a one month lag (e.g. flu data for October will be posted on November Report).

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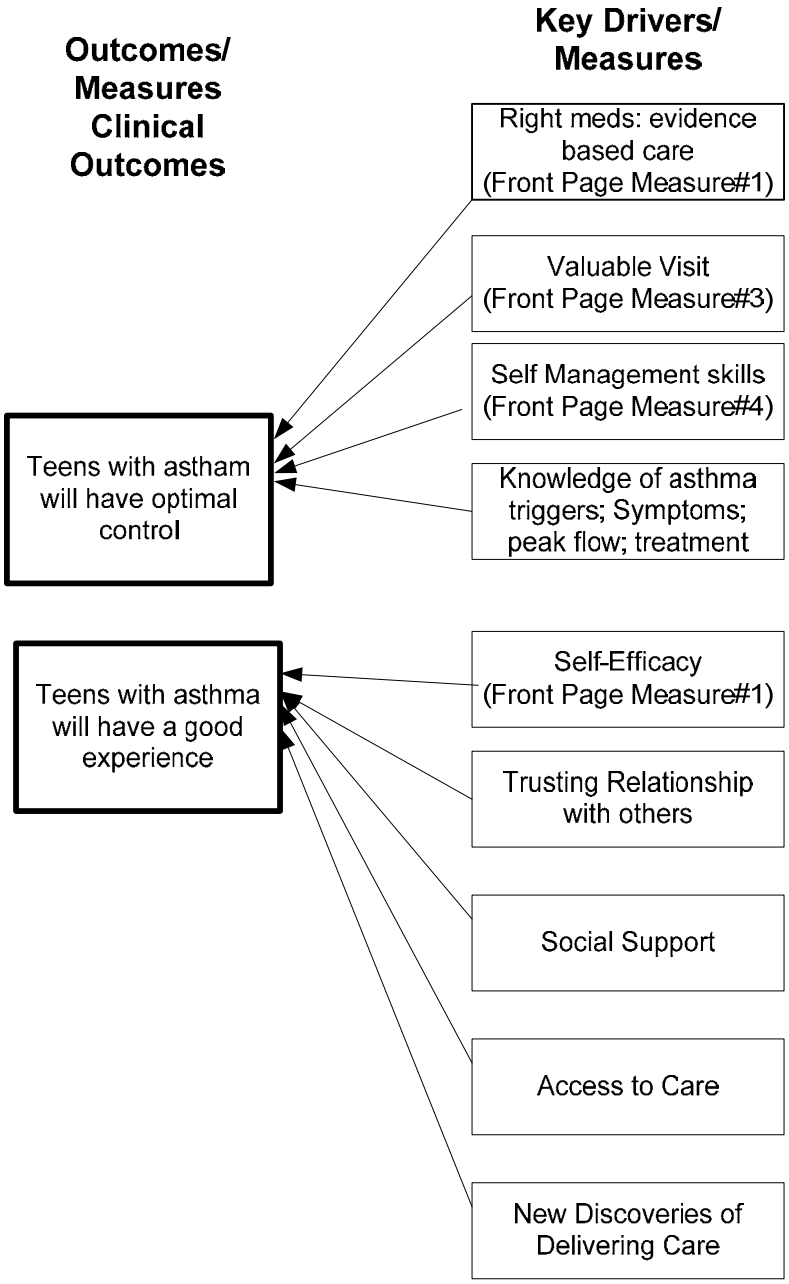
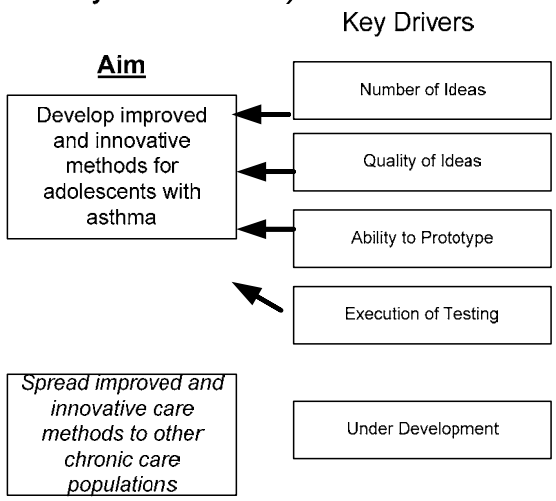
Key Driver Analysis



Key Driver Analysis for Asthma Innovation Lab:

Development of Improved and Innovative Care Methods (Currently under revision)



Project Update:

The focus has been on the following:

- Continuing to hold Teenage Advisory Board meeting with positive response and turn-out
- Recruited for segment questionnaire
- Parent Coordinator is calling patients/coordinating clinic/mitigating errors/entering information into the database
- Continued revising & testing asthma algorithms (see algorithm below)
- Evaluating use of text messaging to contact patients
- Working with Cincinnati Bell to develop and test an automated text message reminder system.
- Waiting for DocSite to begin developing data registry
- Visited Intuit in CA to obtain training in their User Experience research methodology to apply to patients of Asthma Innovation Lab.
- Created and using access database

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Current PDSAs

PDSA Title	Anthropologic Interview			
Objective	To investigate teenagers and parents with a confidence < 7 who have not returned to the Asthma Innovation Lab.			
Prediction	That there are a variety of causes as to why teenagers and parents do not return including life circumstances and beliefs about their asthma.			
Population	Teenagers and parents with a confidence < 7 who have not returned to the Asthma Innovation Lab as determined by the database.			
TEST CYCLE 1	Start Date:	9/4/07	End Date:	9/4/07
Plan	To evaluate first draft of questions for anthropologic interview with teenagers and parents who are seen in the Tuesday afternoon asthma clinic.			
Do	What were your findings: - Flow was better when started with questions about general life situations. - Teens seemed to understand the questions and were able to respond. The questions generated conversations.			
Study	What do we need to change or do next? Suggestions? - Include additional questions about asthma beliefs, how asthma fits into one's life, as well as parents questions.			

Act	- Revise to include additional questions about asthma beliefs, how asthma fits into one's life, as well as parents questions.

TEST CYCLE 2	Start Date:	9/18/07	End Date:	9/18/07

Plan	To evaluate second draft of questions for anthropologic interview with teenagers and parents who are seen in the Tuesday afternoon asthma clinic.
Do	What were your findings: - The word "priorities" threw two teens I interviewed, plus the question around access to health care was unclear to these patients.
Study	What do we need to change or do next? Suggestions? - Change the word "priorities" to say "things that are most important to you." Change the "access to health care question" to read something like "Who determines when and why you see a doctor or other health care provider?" I think it's the word "access" that's throwing people (JB)
Act	- Revise questions to reflect feedback above. Overall, try to make more conversational. - Test further by calling teens on the phone who have missed clinic appointments.

TEST CYCLE 3	Start Date:	9/25/07	End Date:	

Plan	To investigate teenagers and parents with a confidence < 7 who have not returned to the Asthma Innovation Lab.
Do	Contact teenagers and parents with a confidence < 7 who have not returned to the Asthma Innovation Lab as determined by the database.
Study	What were your findings? What do we need to change or do next? Suggestions? One interview was conducted with a parent via phone. The parent was very clear that she didn't want to return because there was too much dead time and she had several children with asthma and didn't need all of the education repeated. She thought her time waiting in the room should be well spent and suggested group education.
Act	- Make changes and test again? Or finalize and put into action? Other?

PDSA Title	Who We Are & What We Do

Objective	To evaluate a branding "Who We Are" statement that can be used in brochures, websites, to explain to teens why they are being asked a number of questions.
Prediction	Teens and parents will feel "good" about coming to the clinic, but won't have any strong feelings about the statement itself.
Population	Teenagers who are seen in the Tuesday afternoon asthma clinic.

TEST CYCLE 1	Start Date:	9/25/07	End Date:	9/25/07

Plan	Find out via discussion what teens and parents think about our branding statement.
Do	Read intro statement, read or give definition to teens. After a moment to let them think about it, ask specific questions provided beneath branding statement.
Study	What were your findings: What do we need to change or do next? Suggestions? 9/25, n=1: Felt like "fishing for compliments"; teen responded "good"; maybe too abstract for them; had to repeat sentence 3x for teen; felt like teen answered the way he was expected.
Act	Make changes and test again? Continue testing? Finalize? Rewrite with more concrete examples, emphasize that we take care of all health needs, and if they want, they can help us since they are the expert on their asthma. Can be bullet pointed. - We'll take care of you, but you'll also have the chance to help others by filling out surveys

	and giving us your opinion.			
TEST CYCLE 2	Start Date:	10/02/07	End Date:	10/09/07
Plan	To evaluate a branding "Who We Are" statement that can be used in brochures, websites, to explain to teens why they are being asked a number of questions with teenagers who are seen in the Tuesday afternoon asthma clinic.			
Do	Read intro statement, read or give definition to teens. After a moment to let them think about it, ask specific questions provided beneath branding statement. I added a question "Tell me about this in your own words"			
Study	What were your findings: What do we need to change or do next? Suggestions? The process is still not working well, I spoke to one teen in clinic that understood the statement, but didn't have any strong feelings about participating. It may be that the teen feels uncomfortable evaluating in presence of a CCHMC employee, or just really doesn't have any strong feelings. When it was presented to the TAB – they all wanted logistical information like hours, contact information, and said there wasn't enough information to decide whether to participate.			
Act	Make changes and test again? Continue testing? Finalize? My recommendation is that we revisit what we are trying to accomplish with this. Is it too much to ask that teens have strong feelings about helping others and coming to the doctor? Should we focus our efforts on deciding what information we should convey and whether teens understand our message? Team decided to add "what to expect", "who are these people", "when to call" Re-write description of clinic to give more concrete examples. Also add contact information and what to expect sections. Focus has moved from a branding focus to a Who We Are and What We Do hand-out for families.			
TEST CYCLE 3	Start Date:	10/16/07	End Date:	10/16/07
Plan	Find out via discussion what teens and parents think about our branding statement.			
Do	Read intro statement, read or give definition to teens. After a moment to let them think about it, ask specific questions provided beneath branding statement.			
Study	What were your findings: What do we need to change or do next? Suggestions? 10/16 – Feedback from families included: • "I like it. It's easy to read. Flows well. Easy to follow." • Reader friendly • Thought it was clear and made sense. • One parent felt that even a child with a fifth grade education could understand it. • Can say no to anything. • Helpful at explaining the clinic. • "I like it. It's very detailed." • It's about taking care of patients and making sure patients leave with smiles on their faces. They help you feel better and satisfy parents too, which is important. 10/16 – Feedback from TAB: Overall felt it was a lot to read. Specifically, here were the comments: • Their immediate response was "Dang, you want me to read all this" • They liked the who we are section • They think the contact information should come after that • They thought it might be better if we were to verbalize a brief version of who we are and then give the them a branding tool and saying if they want more information they can find it here			
Act	Make changes and test again? Continue testing? Finalize?			

	10/16 – My recommendation would be to keep the tool as is but follow the recommendation of the TAB members: Communicate an abbreviated version to the patient and family, then give them the hand-out to read for more information. We should also move the contact information up in order, as indicated.				
TEST CYCLE 3	Start Date:	10/30/07	End Date:	10/30/07	
Plan	Find out via discussion what teens and parents think about our branding statement.				
Do	Read intro statement, read or give definition to teens. After a moment to let them think about it, ask specific questions provided beneath branding statement.				
Study	What were your findings: What do we need to change or do next? Suggestions? I showed this to two teens and one parent. They all said it was understandable and that there was nothing new to be added.				
Act	Make changes and test again? Continue testing? Finalize? My recommendation is to finalize this handout and begin passing out/ mailing. Team would like to know when/ how to deliver to families. Parent coordinator will ask TAB.				

Clinic Flow				
Objective	To structure clinic flow so that every patient is seen with a standard clinic flow and every patient is seen by a self-management coach			
Prediction	50% adherence to new flow, 50% improvement in provider satisfaction			
Population	Patients in asthma innovation lab			
TEST CYCLE 1	Start Date:	9.18.07	End Date:	
Plan	.To have all new patients seen by provider, education provided by nurse practitioner, self-management coach sees patient and then PDSAs done by non clinical person. Follow-ups to be seen by provider who saw at last visit and then seen by self-management coach and non clinical person.			
Do	What were your findings: (Think about: What happened? Was the test carried out as planed? What did we learn? Did the results match your prediction? What did you observe that was not part of the plan?) Did we have enough opportunities for data to make a decision?			
Study	What do we need to change or do next? Suggestions?			
Act				

Patient/Provider Continuity				
Objective	To have patients in the asthma innovation lab seen mostly by NP and MDs in the lab even during ill visits or visits scheduled with other providers in the THC			
Prediction	Patients will be more satisfied with care because they are seeing a provider who is known to them and it will help foster the relationship with this provider			
Population	Patients of the asthma innovation lab in the THC			
TEST CYCLE 1	Start Date:	8.1.07	End Date:	8.30.07
Plan	The nurses and office staff of the THC will email Anna-Liisa Vockell, CNP and Maria Britto, MD when a patient with a blue dot on their chart (pts of the asthma innovation lab) are scheduled for an appointment. Whenever possible, Anna-Liisa or Dr. Britto will see these patients for their appointment.			
Do	No patients have been identified by email. 1 patient was seen by another provider but when they saw the blue dot, asthma forms were filled out and sent to Dr. Britto. Another patient was put on the ill list for the day of our clinic and then was seen by Anna-Liisa.			
Study	No patients identified by the above mentioned method.			
Act	Contact made with clinic coordinator to see if office staff understand procedure. New email send to office staff to clarify and remind.			
TEST CYCLE 2	Start Date:	9.1.07	End Date:	10.31.07
Plan	Same as above			
Do	No patients were again identified by email.			
Study	No patients seen from ill list			
Outcome	Discontinue cycle.			

Parent Coordinator Phone Calls				
Objective	To test the feasibility of a parent coordinator doing preclinic planning phone calls for our asthma innovation clinic.			
Prediction	Patients will appreciate the phone call and guidance and therefore, come to the appointment.			
Population	Patients of the asthma innovation lab in the teen health clinic			
TEST CYCLE 1	Start Date:		End Date:	
Plan	Parent coordinator doing phone calls with patients and families before their scheduled appts (following a script) a few days before scheduled clinic appt.			
Do	What were your findings: (Think about: What happened? Was the test carried out as planed? What did we learn? Did the results match your prediction? What did you observe that was not part of the plan?) Did we have enough opportunities for data to make a decision? -When speaking with the parents they are extremely appreciative of the phone call. They believe it is a great idea and love the service. - I specifically ask them if they will be able to make the appointment and if they have transportation. Some have indicated they need to reschedule and I help with that. Some have indicated a possible transportation problem and I make a note as well as offer suggestions for alternatives - I am perplexed as to why people I have contacted, give me a list of things to talk about with the dr., say they will be able to make the appt., do not show for the appointment			
Study	What do we need to change or do next? Suggestions? - Phone calls are made 4 days prior to clinic (Thursday or Friday)			

	- Maybe calls should be made the day before clinic? Maybe calls should be made in the evening?
Act	

Teen Advisory Board to Establish Relationships to Improve Show Rates/Health Outcomes				
Objective				
Prediction	Teens participating in Advisory Board will be more engaged in care and attend clinic regularly			
Population	Patients in Teen Health Clinic			
TEST CYCLE 1	Start Date:	6/27/07	End Date:	6/27/07
Plan	Hold TAB meeting with pizza served and facilitation engaging teens in discussions, ideas and feedback			
Do	Meeting held with four teens			
Study	Compare show rates of these teens to others or to previous rates attending clinic to see if engagement increases show rates. Also, compare confidence levels and control levels to assess improvements			
Act	Continue to recruit teens to participate and study outcomes			
TEST CYCLE 2	Start Date:	7/11/07	End Date:	7/11/07
Plan	Invite teens who showed at first meeting to return and to bring friends			
Do	Meeting held with 6 teens			
Study	Asked teens what they thought innovative means – invent, inventor, entrepreneur were their responses. They were engaging and talkative – Some asked how they could start attending our clinic instead of the ones they were attending – discuss how they currently get meds			
Act	Continue to recruit teens and get more variety by inviting all clinic patients not just			

Visit Education and Phone calls				
Objective	To increase patient contact in clinic and outside of clinic by nurse practitioner which will hopefully increase relationship-building and clinic show rate for those patients			
Prediction	That NP will be somewhat sad by not performing physicals but happy with the patient contact			
Population	THC asthma innovation clinic patients			
TEST CYCLE 1	Start Date:	7.24.07	End Date:	8.16.07
Plan	To have NP meet and/or educate all patients with asthma in clinic for 3 weeks without doing histories and physicals. NP will call all patients who have had changes to their asthma care 2-3 days after the visit to evaluate their progress.			
Do	NP did some of the education for the new patients but clinic flow required that she continue seeing patients as well. Phone calls were made for patients with a change of care (asthma or otherwise).			
Study	75% (6/8) of patients contacted over the phone made a follow up appointment. 83% (5/6) patients came to their follow up appointment after the initial phone call was made.			
Act	NP will continue to regularly contact patients who have a change of care during clinic, 2-3 days after the appointment. Education of patients still needs to be addressed.			
TEST CYCLE 2	Start Date:	8.17.07	End Date:	10.31.07
Plan	To have NP do education for patients who need it during clinic while still providing care to other patients.			
Do	NP does education for approx. 50% of new patients and very few follow up patients that she does not see as a provider. Phone calls continue to be made but NP tries to at least meet all of the patients she will call during clinic. Other MD providers do education for their patients when NP is busy.			
Study	Patients continue to return well for follow up appointments. Knowledge testing of education provided needs to be assessed.			
Outcome	NP to continue to do education for patients while seeing other primary patients. Calls will continue 2-3 days after visit.			

PDSA Title: Epic Version of Personal Action Plans				
Objective	Evaluate feasibility of Epic Smart Text and real time documentation on laptop in clinical setting			
Prediction	Epic version may be use-able, but there may be challenges including user proficiency or Epic "water-tightness"			
Population	Teens with chronic illness – JIA in Rheumatology and asthma in Innovation Clinic – sample at least 2 in each clinic			
TEST CYCLE 1	Start Date:	9-11-07	End Date:	9-11-07
Plan	Clinician will facilitate use of personal action plan on the laptop – teens simultaneously completing hardcopy personal action plan.			
Do	What were your findings: (Think about: What happened? Was the test carried out as planned? What did we learn? Did the results match your prediction? What did you observe that was not part of the plan?) Unable to use laptop in Rheumatology although paper personal action plan was used and well-accepted by 12 year old and her mother who set exercise goals to reduce stiffness and pain. Did we have enough opportunities for data to make a decision? Not this time			
Study	What do we need to change or do next? Suggestions? Test next week in Innovation clinic; note clinic flow to see where self-management and action-planning process and collaborative problem-solving can be done			
Act	Plan tests for next week using Epic-based personal action plan			
TEST CYCLE 2	Start Date:	9-18-07	End Date:	9-18-07
Plan	Clinician will facilitate use of personal action plan on the laptop – teens simultaneously completing hardcopy personal action plan.			
Do	What were your findings: (Think about: What happened? Was the test carried out as planned? What did we learn? Did the results match your prediction? What did you observe that was not part of the plan?) Laptop (Epic PAP) was used with two teens successfully. Clinician observed that use of laptop did NOT get in the way of interacting with patient and she was actually able to capture what the patient said in real-time. Patient wrote on the paper personal action plan at the same time and a copy of this was given to patient and a copy placed on chart as always in THC. Did we have enough opportunities for data to make a decision? Changes were made to the personal action plan based on observation of the clinician's interaction and use of collaborative problem-solving.			
Study	What do we need to change or do next? Suggestions? As noted above – changes made between the two tests today and change was successful (addition of assumed success asking "I will celebrate my success by_____". Change was made on both Epic version and paper version.			
Act	Discussion will be held prior to next clinic tests to see if other changes need to be made. Next tests will focus on use by less experienced clinicians or clinicians with less buy-in. Will also try this again in Rheumatology clinic and perhaps one other clinic besides THC.			

PDSA Title: Self-management assessment test – version 1

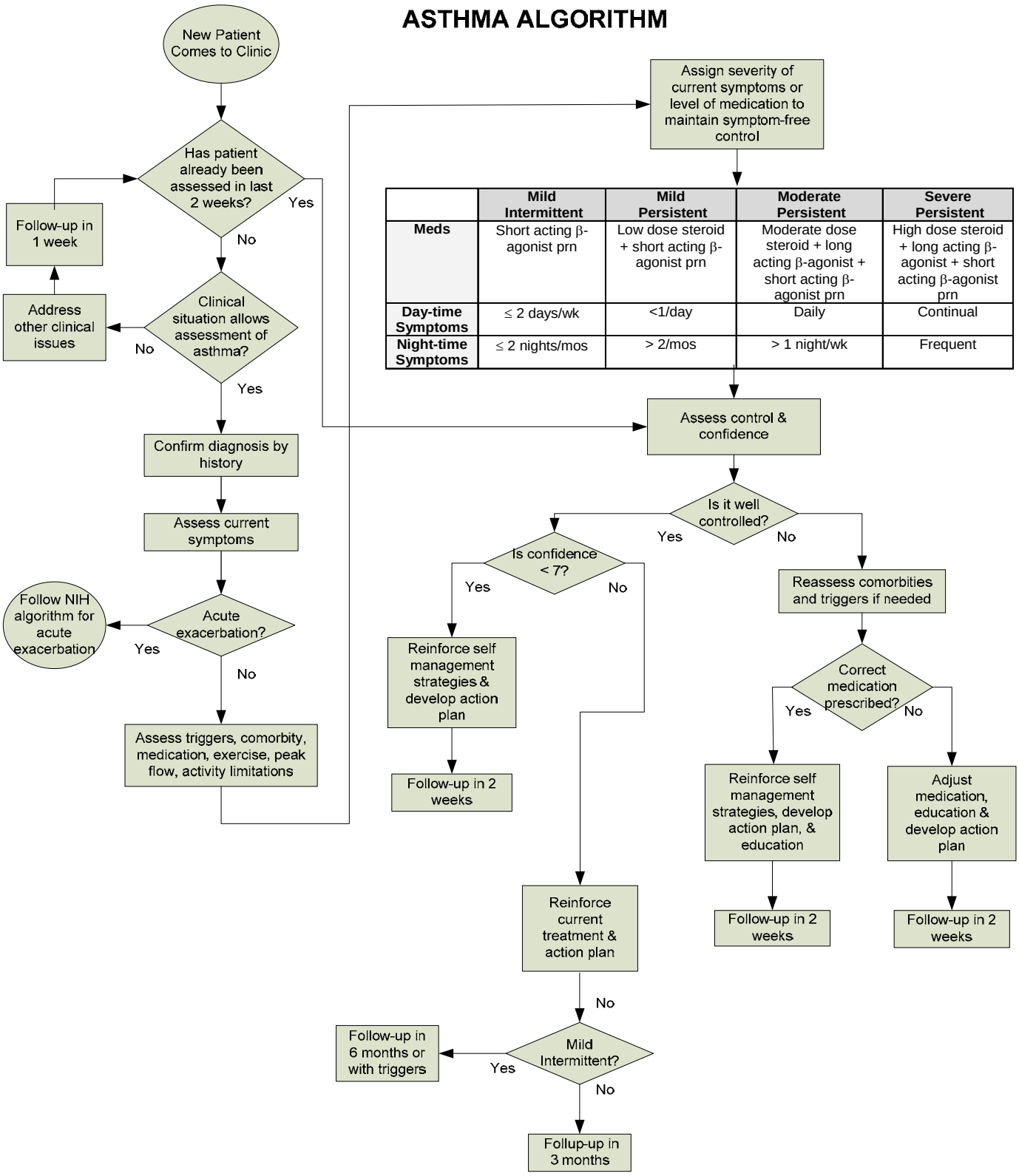
Objective	Test synthesis of questions developed by SMIT (self-management implementation team) to stratify self-management support and track outcomes			
Prediction	Of the 8 questions, it is predicted that the first 5 will be well-received and the next 3 will be seen as invasive or unnecessary.			
Population	Teens and parents in Innovation Clinic; patients and parents in Rheumatology Clinic			
TEST CYCLE 1	Start Date:	9-4-07	End Date:	9-4-07
Plan	Test questions in Innovation Clinic by asking patients/parents about the questions.			
Do	What were your findings: (Think about: What happened? Was the test carried out as planed? What did we learn? Did the results match your prediction? What did you observe that was not part of the plan?) Both teens (patients) asked felt the first 5 questions were fine, but that questions 6-8 would require a very strong patient-practitioner relationship for a teen to feel comfortable answering them. The parent who participated felt that the questions pertaining to family functioning were invasive, but the elements specific for the teen (school issues, substance use) were appropriate since the visit was about the teen's health to begin with. Did we have enough opportunities for data to make a decision? Enough feedback and support of prediction to change the last three questions.			
Study	What do we need to change or do next? Suggestions? Assessment responses for questions 3 and 4 were revised and questions 6-8were changed...			
Act	Revised questionnaire will be tested in Rheumatology clinic next week with a variety of patients from different demographics.			
TEST CYCLE 2	Start Date:	9-11-07	End Date:	9-11-07
Plan	Test questions in Rheumatology Clinic by asking patients/parents about the revised questions.			
Do	What were your findings: (Think about: What happened? Was the test carried out as planed? What did we learn? Did the results match your prediction? What did you observe that was not part of the plan?) Both patients and mothers gave feedback that the questions were easy to answer – one mother did not see the point of the response "neither agree nor disagree". Did we have enough opportunities for data to make a decision? Will test again next week in Innovation Clinic by having patients fill it out			
Study	What do we need to change or do next? Suggestions? Add readiness question; test acceptability of the revised questions with "neither agree nor disagree" option.			
Act	Will test by having teens complete prior to a personal action plan in Innovation Clinic after adding a readiness to change question to further allow for possible segmentation.			
TEST CYCLE 3	Start Date:	9-18-07	End Date:	9-18-07
Plan	Test questions in Innovation Clinic by asking patients to take the self-management assessment.			
Do	What were your findings: (Think about: What happened? Was the test carried out as planed? What did we learn? Did the results match your prediction? What did you observe that was not part of the plan?) Both teens felt the questions were fine and easy to answer and had no problem answering them (ages 12 and 15). The assessment actually segued nicely into the action-planning process even with the one teen that did not identify a health goal – she was able and willing to do the personal action plan. Did we have enough opportunities for data to make a decision? This test supports the acceptability and utility of the current questions.			

Study	What do we need to change or do next? Suggestions? Discussion has identified some possible additional questions.
Act	Additional questions will be considered and possible added for final re-test.

Home visit for patients with asthma who have attended innovation clinic				
Objective	Home visit with a single patient with asthma experiencing difficulty in attending clinic			
Prediction	Parent and patient will be satisfied; patient will get necessary care			
Population	One teen with asthma who is experiencing suboptimal control			
TEST CYCLE 1	Start Date:	6/28/07	End Date:	6/28/07
Plan	Single home visit to assess patient and environment, manage medications and offer self-management support			
Do	Home visit completed			
Study	Patient and mother satisfied; medications evaluated; asthma education and self-management support offered			
Act	Make additional home visits to several patients after evaluating CCHMC acceptability and feasibility			
TEST CYCLE 2	Start Date:	8.24.07	End Date:	10.31.07
Plan	Nurse practitioner to make visits with 5 patients in their homes along with CCHMC home care nurses			
Do	Met with home health nurses, clinical coordinator and senior clinical director to discuss specifics. 8 patients tentatively identified. Calls being conducted to see if they are interested.			
Study	Attempted contacting patients by phone who had not returned for clinic. No successful contacts made d/t incorrect phone numbers and addresses. Tried multiple ways to find patients without success. Decided to offer home visits instead of a followup appointment for patients who were seen in clinic but hesitant to return that soon. 3 patients refused and wanted phone contact instead.			
Outcome	Discontinue cycle.			

Asthma Algorithm

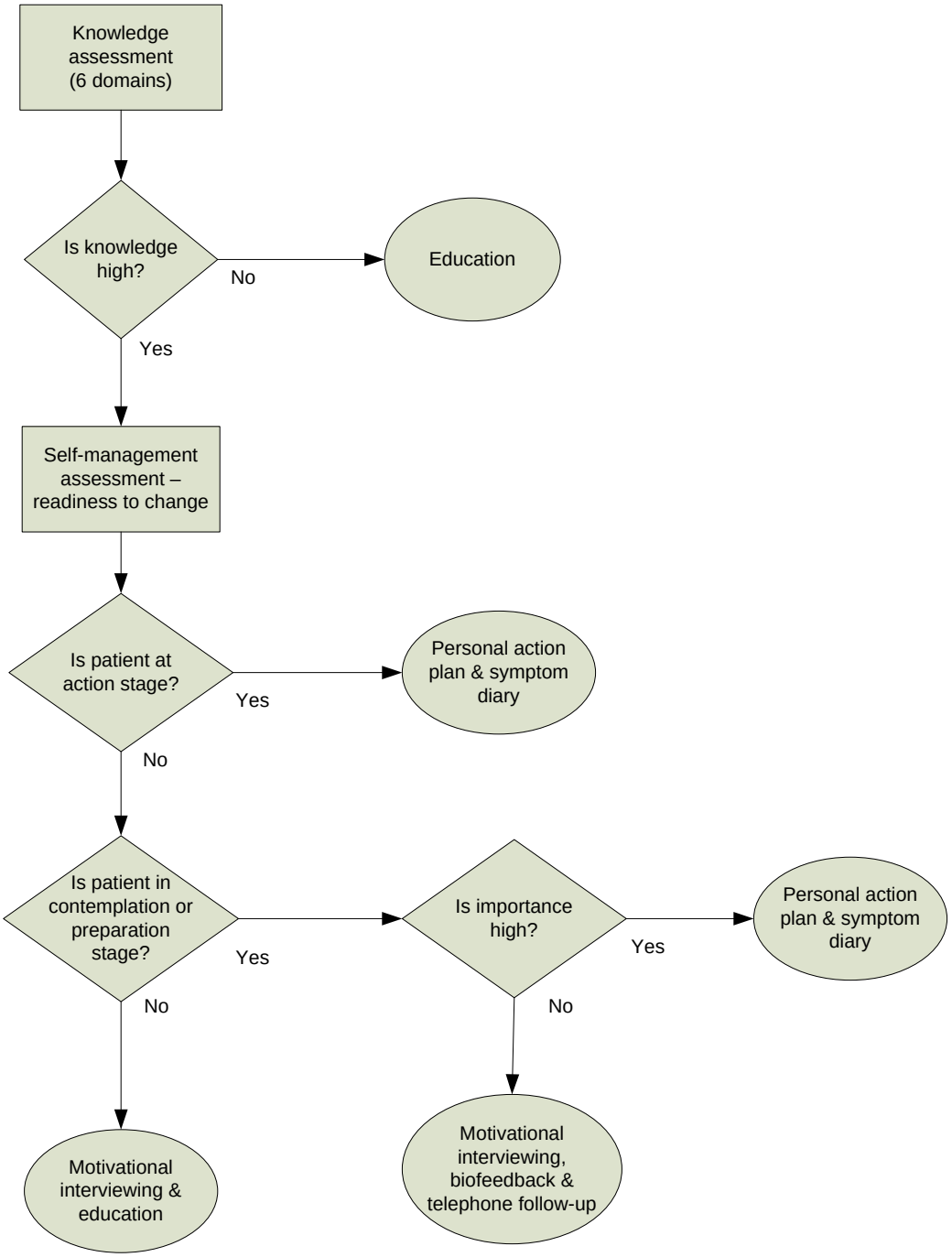
ASTHMA ALGORITHM



	Mild Intermittent	Mild Persistent	Moderate Persistent	Severe Persistent
Meds	Short acting β-agonist prn	Low dose steroid + short acting β-agonist prn	Moderate dose steroid + long acting β-agonist + short acting β-agonist prn	High dose steroid + long acting β-agonist + short acting β-agonist prn
Day-time Symptoms	≤ 2 days/wk	<1/day	Daily	Continual
Night-time Symptoms	≤ 2 nights/mos	> 2/mos	> 1 night/wk	Frequent

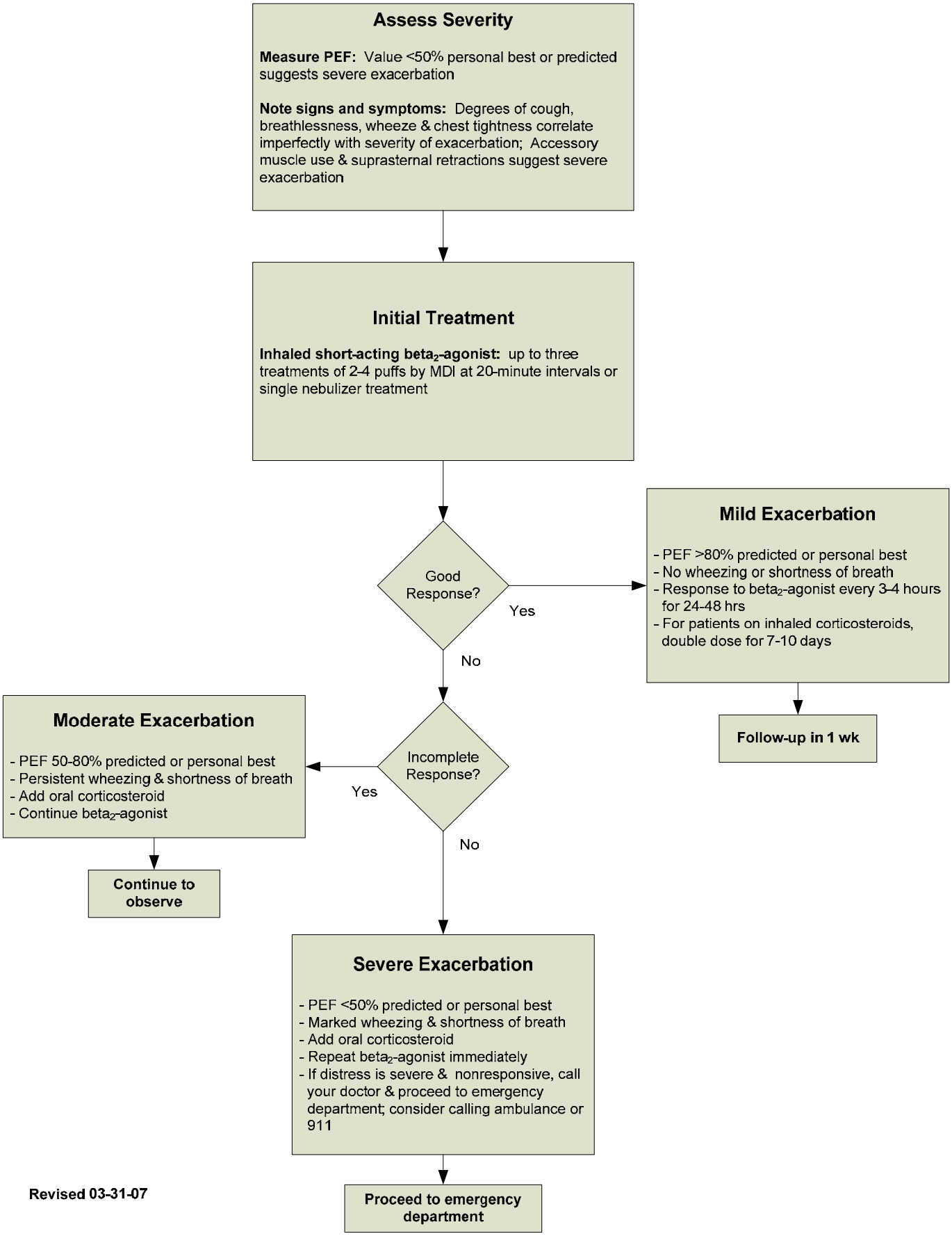
Revised 03-30-07

Self Management



Revised 04-06-07

NIH Algorithm for Acute Exacerbations



Revised 03-31-07