



Project BREATHE



Pediatric and PICU Inter-disciplinary Team of Cohen Children's Hospital at Manhasset,
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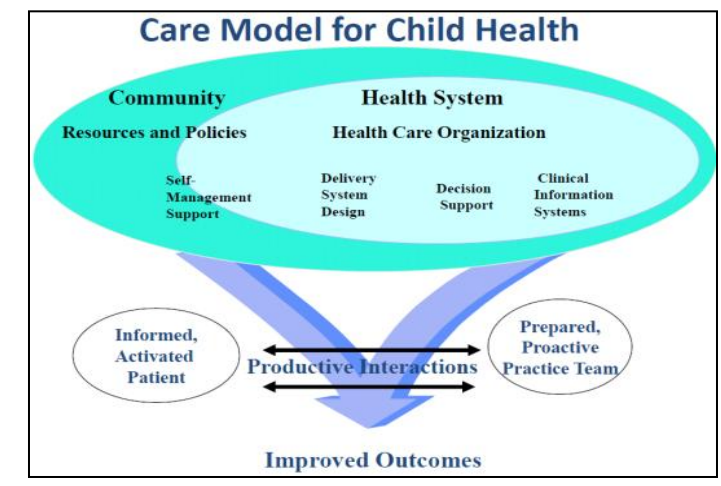
Introduction/Background

Project "BREATHE" is a performance improvement project for pediatric asthma in-patients in the pediatric unit, started in March 2010. Pediatric staff recognized high asthma-related readmissions in a high-risk high-volume patient population. There were 105 asthma related pediatric admissions and readmissions from January-September 2009 at Cohen Children's Medication Center (CCMC) of New York at North Shore University Hospital (NSUH).

Asthma Prevalence 2009 for Children Under 18 Years in Long Island:
 Total population under 18 = 671,400*
 11% Asthma Prevalence or 1 in 9 children with Asthma
 Hospitalizations for children with asthma in Nassau County are more than twice the Healthy People 2010 Goals and many underserved communities surrounding CCMC have as much as four times this rate.

*Source: US Census 2000

Purpose



Through a systems approach using the Chronic Care Model, Project BREATHE provides best practice and consistent, comprehensive asthma care and education, using a multi-disciplinary team approach at the hospital. This care is followed through at home and at school with the help of community partnerships to ensure that patients reduce hospital readmissions and revisits to the emergency department.

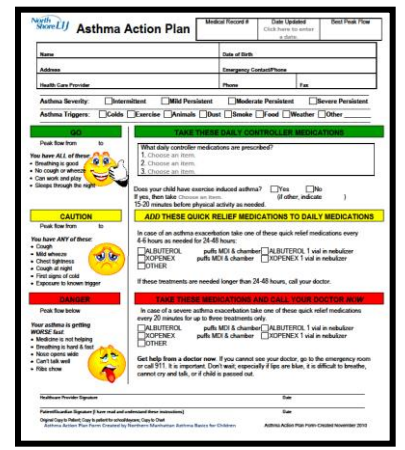
B Bringing
R Resources for
E Effective
A Asthma
T Treatment through
H Health
E Education

Design/Instruments

This is a Performance Improvement project for the Pediatric floor and Pediatric ICU

The instruments used in this project are:

- ✓ Asthma Admission Questionnaire for Parents (RN)
- ✓ "Asthma: Caring for Your Child at Home" reviewed with parent(RN)
- ✓ Flipchart for patient/parent education (Child Life)
- ✓ Medication education for patient/parent (RN/RT)
- ✓ Device training for patient/parent (RT)
- ✓ School re-entry program for school-aged patient (Child Life)
- ✓ Asthma Action Plan (RN/MD)
- ✓ KBC Discharge Sheet (RN/MD)
- ✓ Discharge Reconciliation Sheet (RN/MD)

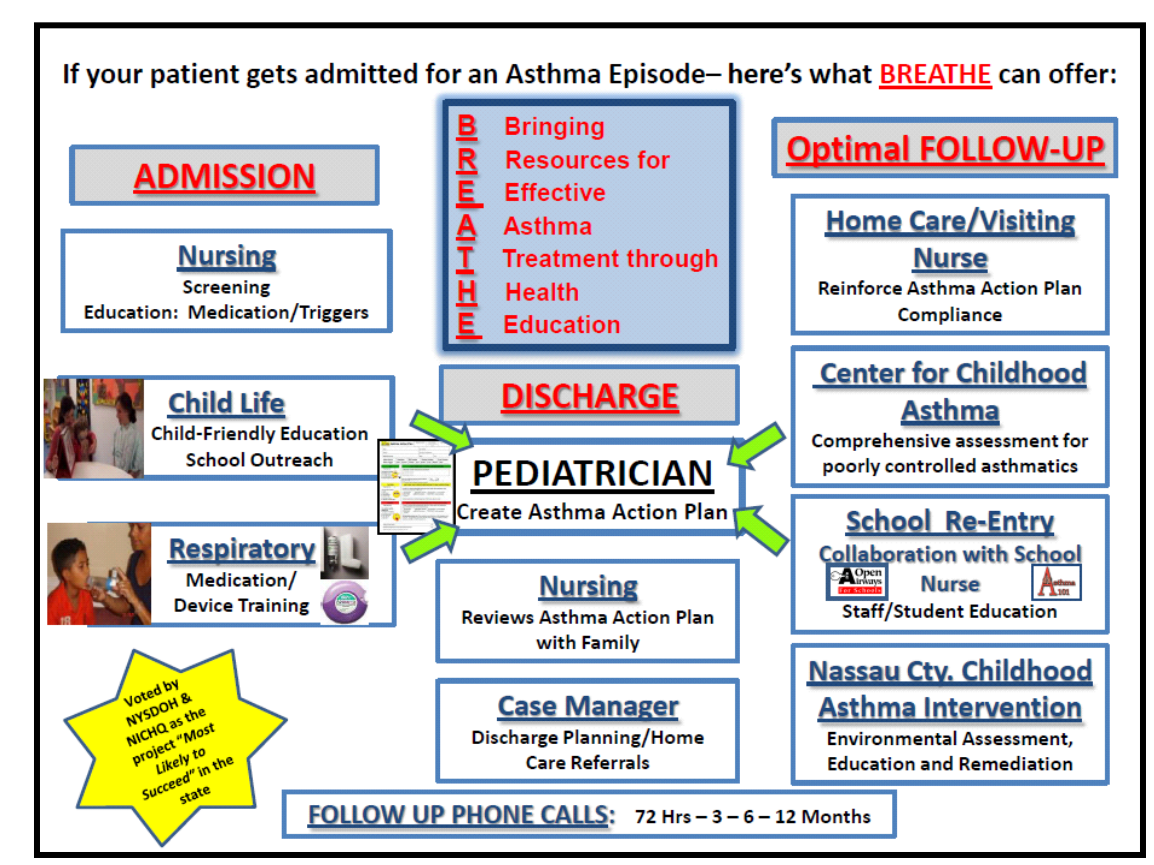


Methodology/Intervention

BREATHE is an inter-disciplinary project involving physicians, nurses, respiratory therapists, child life specialists, case management, social work, and Asthma Coalition of Long Island community resources.

- ❖ Comprehensive asthma education programs are delivered to patients and their families from admission to discharge. These programs are provided by the RNs, MDs, Respiratory Therapists, and Child Life Specialists using bilingual health literate hand outs and flipcharts.
- ❖ Patients are discharged with an Asthma Action Plan which has detailed information about their medications. The Asthma Action Plan aids parents in early recognition of signs/symptoms of worsening asthma.
- ❖ Parents are strongly encouraged to allow home visits from home care nurses to provide reinforcement to the educational support and to increase medication and environmental control compliance.
- ❖ Follow-up phone calls are made after discharge at 72 hours, three months, six months, and one year to measure outcomes. These calls also reinforce asthma self-management skills.

Results



Results

- ☀ The project BREATHE became the standard of practice in the pediatric unit for asthma patients
- ☀ Thus far 238 patients are enrolled in the program. Of the 238 patients, 92 patients completed one year post enrollment
- ☀ There is a significant reduction in the hospital readmissions and ER revisits for the 92 patients compared to the same period previous year (p-.0001)

Results

Post ER visits-Pre ER visits					Post admissions-Pre admissions						
delta	er	Frequ	%	Cum. Freq	Cum. %	delta	ad	Frequ	%	Cum Freq	Cum.%
-9	1	1.09		1	1.09	-4	2	2.17		2	2.17
-6	1	1.09		2	2.17	-3	3	3.26		5	5.43
-5	1	1.09		3	3.26	-2	20	21.74		25	27.17
-4	1	1.09		4	4.35	-1	55	59.78		80	86.96
-3	1	1.09		5	5.43	0	8	8.70		88	95.65
-2	10	10.87		15	16.30	1	4	4.35		92	100.00
-1	31	33.70		46	50.00						
0	35	38.04		81	88.04						
1	7	7.61		88	95.65						
2	3	3.26		91	98.91						
3	1	1.09		92	100.00						

Conclusions

- ☐ Consistent, comprehensive asthma care and education, using a multi-disciplinary team approach (with help from community partnerships and regular follow ups) will improve outcomes and quality of life for children with asthma.
- ☐ After one year of enrollment, 50% of patients (N=92) reduced revisits to the ER at least by one visit (p<0.0001).
- ☐ After one year of enrollment, 87% of patients (N=92) reduced readmissions to the hospital at least by one admission (p<0.0001).

Future Plans

1. Continue the project as it is "The golden standard of care for all pediatric asthma patients" (JC quote, 2011).
2. Formulation of a 'physician Information' letter for all participating pediatricians to improve continuity of care
3. Improve the process of follow up after discharge.
4. Spread the project to :- NSUH Pediatric ER and CCMC @ South Campus and other Health System pediatric units. (project BREATHE implemented at CCMC South Campus in June 2012).

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