Asthma Patient Care at University of Michigan Health System

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University of Michigan Health System (UMHS) is a tertiary care 866 bed academic health system with:
- Annual Clinic Visits (excluding ER): 1,615,774
- Annual Emergency Services/Urgent Care Visits: 80,510
- Over 30 ambulatory health centers

Asthma Quality Improvement Steering Committee: Physicians, Nurses, Respiratory Therapists, Pharmacists, Educators, IT specialists

All-payer asthma registry to monitor improvement outcomes
- 12,116 patients in 2007
- 11,686 patients in 2009
**Key Message:**

**Written Asthma Action Plan**

- In December 2006, only 7% of UMHS asthma patients had AAP documented in the electronic medical record (EMR)

- Primary care health centers struggled to fulfill recommendation
  - Most allied health personnel lack asthma management training
  - Short provider visits

- Selected and created standardized asthma education materials
  - Patient education materials
  - Documentation templates
  - Medication Device Training Kits
  - Standardized AAP
Standardized Patient Education Materials

ASTHMA PATIENT EDUCATION NOTE, INCLUDING ASTHMA SAFETY AND ASTHMA SELF-MANAGEMENT Vs.1.0

DATE OF LAST PATIENT EDUCATION ASSESSMENT:
<___mostRecentPatientEdu___> (Must have been completed within the past 12 months.)

LEARNERS PARTICIPATING TODAY
- Patient
- Spouse/Significant Other
- Others (List):

PATIENT EDUCATION PLAN: Evaluate current level of understanding and provide basic asthma information as needed including: underlying patho-physiology; medication use and rationale; trigger identification and avoidance measures; and self-management tools.
- Patient and/or family will be taught asthma self-management.
- Patient and/or family will be taught asthma safety

EDUCATIONAL INTERVENTIONS IMPLEMENTED TODAY:
WHAT IS ASTHMA
- States Asthma is a chronic breathing problem caused by inflammation of the airway in the lungs.
- States asthma can not be cured, but can be treated and controlled.
- States signs and symptoms of an asthma attack

TRIGGERS DISCUSSED/IDENTIFIED:
- Patient can identify asthma triggers.
- Patient can identify seasonal allergens, occupational allergens.
- Cold
- Pollen
- Mold
- Other
Electronic Asthma Action Plans

• Developed consistent age-appropriate asthma action plan templates
  – Easy for patients to read
  – Help providers follow guidelines
    • Age-appropriate
    • Menus with medications and dosages
  – Linked to Careweb for documentation.
  – Can be filled in by nurse or MD

http://www.med.umich.edu/i/oca/practiceguides
Methods: Comparison of Communication Methods

Face to Face Education

- Asthma nurse specialists gave face-to-face education to 210 allied health personnel at 11 health centers treating asthma patients
- Focus:
  - Basic disease understanding
  - Documentation
  - Standardized patient educational tools

Physician Emails

- All health centers received physician email notification that included:
  - Standardized education materials description
  - How to use the standard, electronic AAP
  - Report card about their patients’ documentation
Methods: Physician Report Card

UMHS Asthma Disease Feedback Summary for: (June, 2007)

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<th>Patient Name</th>
<th>Reg Num</th>
<th>Age</th>
<th>PSL Dr</th>
<th>Asthma RAD</th>
<th>Asthma Action Plan</th>
<th>Controllers</th>
<th>Steroid</th>
<th>Leukotriene</th>
<th>Long Acting</th>
<th>Short Acting</th>
<th>Utilization</th>
<th>Flu Imm</th>
<th>MYN</th>
<th>Next Visit</th>
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- Given to physicians and health center directors twice-yearly beginning December 2006.
- Executive reports to UMHS leadership.
Results of Comparison

- Compared EMR documentation of AAP in health centers whose staff did & did not receive training
- The proportion of patients with a documented AAP increased from 7% in December 2006 to 48% in December 2009 (p<0.0001).
- Health centers who received training (n=11) had an average improvement of 36% during this period.
- Health centers who were not trained (n=4) had an average improvement of 26% during this period.
Key Message: Inhaled Corticosteroid Use

- Included on Physician Report Cards
- Updated UMHS Asthma Clinical Guidelines
- Emergency Department (ED) Inhaler ‘Starter Kit’ –
  - Given to asthma patients discharged from the ED who were not previously prescribed a corticosteroid
  - Flovent inhaler & spacer or oral steroid pre-packaged dose pack given at ED discharge
  - Patient taught how to use inhaler and spacer devices
Key Message: Assessment of Exposure to Triggers

- Referrals made to all programs in inpatient, ED, and ambulatory care settings

- **Children’s Asthma Wellness Clinic** – specialty Pediatric Pulmonary clinic

- **Adult Allergy & Asthma Clinic** – available at 3 locations

- **Michigan Visiting Nurse Environmental Asthma Program**
  - Asthma nurse visits home
  - Completes environmental assessment
  - Asthma education
  - Reinforces correct asthma medication device use
  - Completes Asthma Action Plan if needed