

# IMPROVING PATIENT AND CLINICIAN DECISION-MAKING IN ASTHMA CARE: THE ASTHMA CONTROL MONITOR®

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## BACKGROUND

- Asthma is a highly variable inflammatory disease that blocks airflow, causes airway symptoms and imposes limitations.
- If airway inflammation is present airflow obstruction can occur after exposure to environmental triggers, including smoke and allergens.
- Inhaled corticosteroids (ICS) are the most effective anti-inflammatory treatment for asthma.
- Effective self-care and clinical services require frequent, standardized assessments to adjust therapy, reduce triggers and maintain asthma control.

## INTRODUCTION

- Lack of appropriate assessments and reliable information contribute to inadequate medical decision-making when based only on a clinical history and physical examination.
- Discordance between patients' verbal histories and records of actual medication and health services use (claims) shows that clinicians overestimate use of ICS and underestimate asthma risk and impairment.
- The Asthma Control Monitor® (ACM®) coupled with My Asthma Control report address these barriers by closing critical gaps in communication between patients and providers.
- The ACM® is an innovative application tool that graphically describes the current level of asthma control in accordance with national asthma guidelines in two display formats.
- The first format is designed to improve provider decision-making and guide EPR3 compliant treatment decisions. **This is called the Asthma Control Monitor®.** The second format is designed to enable patients to make better treatment decisions. **This is called My Asthma Control®.**

## SCHEMATIC DESIGN

User: Demo

### Asthma Control Monitor

Choose a patient: Dennis Richie

Indicator/Measure	Well Controlled	Not Well Controlled	Very Poorly Controlled
FEV <sub>1</sub>	> 80% of personal best Or % predicted	60%-80%	< 60%
FEV <sub>1</sub> /FVC	Normal	reduced by 6%-10%	reduced by > 10%
Impairment Score	None	Some	Lots
Short-Acting Beta Agonist (SABA)	< 3 doses/week	3-6 doses/week	> 7 doses/week
Systemic Steroid Burst	< 2/year	2-3/year	> 3/year
Acute Care Days (ACD)	< 2 days/year	2-6 days/year	> 6 days/year
Inhaled Corticosteroids (ICS)	Low/Medium	High	Sub-therapeutic
Antibiotics	< 2/year	2-4/year	> 4/year
High Fidelity	< 2	2-3	> 3
Influenza Vaccine	< 1 year	1-2 years	> 2 years
Inhalation Technique (IT)	Good	Inadequate	Poor
Cost (Total Care)	< 120%	120%-200%	> 200%
Environmental Risk	> 65	50-65	< 50

#### Co-morbidities:

**Summary:** Very poorly controlled, high risk with impairment, urgent follow-up appointment indicated, inadequate ICS dispensing, impairment includes night awakenings, difficulty running/playing hard, etc. Total cost of care is very high with more than 6 days per year of acute care for asthma.

#### Recommendations:

- increase ICS adherence
- offer ICS STAR Chart incentive
- schedule CPT 98960 (ACE)
- complete Childhood Asthma Risk Assessment Tool
- consider Home Trigger Reduction Visit

Terminology  
Asthma Assessment Form  
Home Environment Assessment Form

## SUMMARY Layer – Iconic Representation of Asthma Status

My Asthma  
Control

Asthma Control  
Monitor

## ASSESSMENT Layer - Detailed View of Each Indicator

Clinician and medical home care  
manager views of indicators

## SUPPORT Layer - Promoting Positive Change

URLs for self-  
care resources  
and education

URLs for  
training,  
evidence and  
resources

## ASTHMA ASSESSMENT TOOL

- Summary fields in the ACM® provide “clickable” links to detailed tables stamped by date and source.
- Assessment data (functional impairment score, FEV<sub>1</sub>, inhalation technique-inspiratory flow rate and time, and environmental risk) from school nurses, pharmacists, community asthma educators and clinical staff can be merged with claims data and displayed for clinical providers to determine asthma severity and control.
- Clinical asthma educators collect assessment data during Counseling for Risk Reduction (CARR®) asthma education sessions prior to a patient seeing their provider.

## MY ASTHMA CONTROL REPORT

- The data will then populate the ACM® and display treatment information to the provider, clinical asthma educator, and the patient (My Asthma Control® or MAC®) in a visually iconic report.
- This provides for standardized, evidence-based Asthma Ready® educational and service intervention delivery specifically targeted for areas of patient asthma control concerns and issues derived from MAC® report.
- These reports are health literate deliverables for parents, school nurses, community health workers, environmental specialists, and providers themselves.

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