



Uncovering Persistent Asthma In Child Health Supervision Visits

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BACKGROUND

- Continuity of care for asthma is recommended by NHLBI guidelines at a frequency of 1-6 months depending on severity/control². PCPs may care for asthma mainly during Health Supervision Visits (HSVs)¹.
- However, HSVs must cover concerns, exam, anticipatory guidance, and screening, limiting time to address asthma.
- PCPs have been shown to be poor at identifying severity/control levels without an assessment tool.
- Treatment is predicated on perceived a control level often milder than the actual level⁵.

OBJECTIVES

- To explore automated use of a standard monitoring tool (Pediatric Asthma Control and Communication Instrument or PACCI³) at HSVs for children with asthma to identify persistent asthma, rather than relying on parental priorities of symptoms.
- To compare asthma control levels between specific “asthma visits” and HSVs with and without parental concerns about symptoms.

DESIGN/METHODS

- 25 community pediatric practices across the US over 14 months used the CHADIS online system for collecting pre-visit data. For HSVs, a questionnaire collected parent priorities (“What would you like to talk about during the visit”) with “breathing or cough” as one option.
- The priorities questionnaire also asked for any prior diagnoses from a list of chronic conditions, including asthma. If asthma was endorsed PACCI, a brief validated asthma questionnaire was automatically administered. PACCI collects interval symptoms, interventions, adherence and impact information and results in an asthma severity/control level.
- PACCI was also completed prior to visits scheduled specifically for addressing asthma.

Patient Demographics		
Age	Average	6.1 yrs
	Range	0 – 21 yrs
Gender	Male	49%
Race	White/Caucasian Only	47%
	African American Only	19%
	Asian Only	4%
	Multiracial	4.5%
	Other	5.3%
	No Answer	20.5%
Ethnicity	Hispanic	13.0%
Insurance	Medicaid or S-CHIP	29.2%

RESULTS

- Of 33,366 HS visits, 2,211 (6.6%) included an asthma diagnosis, similar to national prevalence.
- Persistent asthma was present in less (but still many) children with asthma coming for HSVs 34.5% vs 41.9% of “asthma visits” ($\chi^2 = 30.42$, $df = 1$, $p < .01$).
- Persistent asthma was found in: 41.9% of 3271 “asthma visits”; 57.8% of 296 HSVs with parental priorities of “breathing or cough”; 30.9% of 1915 HSVs without such endorsed priority.
- Severity levels differed significantly between visit groups ($\chi^2 = 119.06$, $df = 6$, $p < .01$).
- Parents of 77.6% of children with persistent asthma attending HSVs did not list “breathing or cough” as a priority.

Severity/Control Levels by Characteristics of Visits for Children with Asthma

Asthma Severity/Control Level	Child Health Supervision Visits (HSV) with Parent-Reported Previous Diagnosis of Asthma				Asthma Visits	
	Parent Breath/Cough Priority	%	No Asthma Symptom Priority	%	Asthma Visits	%
a. Intermittent/Well-Controlled	125	42.2	1323	69.1	1900	58.1
b. Mild Persistent/Partly Controlled	79	26.7	340	17.8	720	22.0
c. Moderate Persistent/Uncontrolled	62	20.9	187	9.8	465	14.2
d. Severe Persistent/Very Poorly Controlled	30	10.1	65	3.4	186	5.7
Total Visits	296		1915		3271	
Total with Persistent Asthma (b,c,d)	171	57.8	592	30.9	1371	41.9

DISCUSSION

Lack of Asthma Symptom Priority in HSVs for Children with Persistent Asthma		
	n	%
Total with Persistent Asthma at HSVs	763	34.5% of HSVs for Patients with Asthma
Persistent Asthma at HSV and No Visit Priority for Asthma Symptoms	592/76	77.6%

CONCLUSIONS

- If only parent priority of “breathing or cough” were used to determine whether to assess asthma status during HSVs, 77.6% of children with persistent asthma potentially needing step up care may be overlooked.
- Use of a monitoring questionnaire triggered by a parent-reported asthma diagnosis can facilitate valid assessment of asthma symptoms and change in management.
- Pre-visit assessment allows for appropriate scheduling, visit prioritization and billing (i.e. 96160 for measure plus 25 extender for documented additional issue & visit code 9921x).
- HSVs are a critical opportunity for guideline-based asthma care.

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