# Clinical Decision Support and NHLBI Asthma Guidelines

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#### Overview and take home thoughts...

- These guidelines are over 400 pages long!
- Clinical Decision Support is only a tool has to be useful and used
- Are the guidelines realistic in primary care?
- Practice transformation!

#### How do we get from point A -> point B? Why do we want to get from point A -> point B?





Summary   ACT/ATAQ   Control/Sev   Triggers   Assessment   Action Plan   Education   SMgmt Goals				
Asthma Management - Summary		DOB: 03/10/1961 Pa	ent Age: 56 Years Old	add all to note
Screening	Last Screening	Protocol	Recommendation	Today add
Severity	Class: Risk: Impairment	At First Diagnosis	Due	Update
Control	Class: Risk: Impairment:	Every 6 months	Due	Update
Spirometry	FVC: FEV1: FEV1/FVC: Spirometry:	Every 6 months	Due	Update
Asthma Action Plan	AAP:	Every 6 months	Due	Update
ACT/ATAQ		Every 6 months	Due	Update
Triggers	Triggers: Smoking: former smoker (12/06/2016) Passive Smoke: No (02/16/2016)	Every 6 months	Due	Update
Patient Education	Basic Asthma Facts: Trigger Reduction: Inhaler/Nebulizer Use: Adherence: Yearly Flu Vaccine: Peak Flow Use:	Every 6 months	Due	Update
Influenza Vaccine	#1: #2: Excl:	Yearly (seasonal from July to June)	Due	Add Influenza
Pneumococcal Vaccine	#1: Booster (PPSV): Booster (PCV13):	Once before age 65, then once over 65, if	? Due	Add Pneumovax

#### Clinical Decision Support

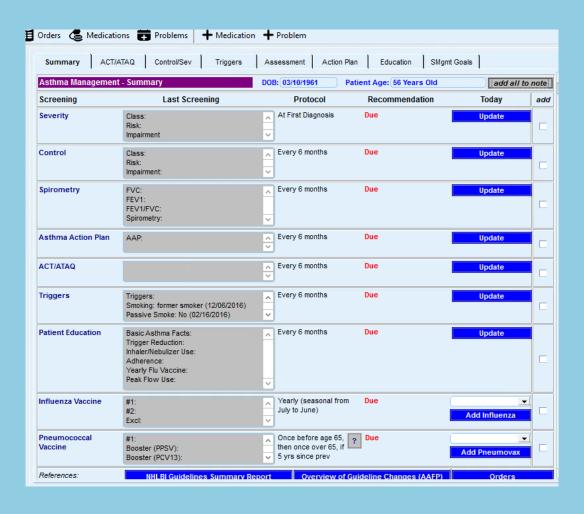
- Mixed reviews...
  - "Many CDSSs improve practitioner performance. To date, the effects on patient outcomes remain understudied and, when studied, inconsistent." Garg, et al. JAMA. 2005;293:1223-1238
  - "The current generation of CDSSs is unlikely to result in improvements in outcomes for patients with asthma because they are rarely used and the advice is not followed. Future decision support systems need to align better with professional workflows so that pertinent and timely advice is easily accessible within the consultation". Matui et al. NPJ Prim Care Respir Med. 2014; 24: 14005
  - "Evidence supports the effectiveness of CCDSS in the care of people with asthma.... Although there is considerable improvement in the health care process measures and clinical outcomes through the use of CCDSSs, its effects on user workload and efficiency, safety, costs of care, provider and patient satisfaction remain understudied." Fathima, et al. <a href="MRC Pulm Med">BMC Pulm Med</a>. 2014; 14: 189

#### Asthma Clinical Decision Support Project

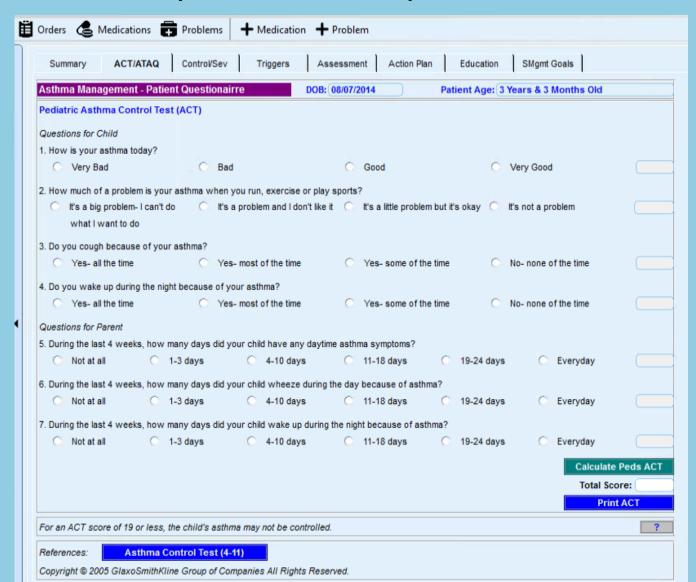
### AllianceChicago/Association of Clinicians for the Underserved

- 4 year EPA grant award in 2010 to revise EMR content to display NHLBI asthma guidelines (with an area of emphasis being environmental triggers)
- Part of a federal action plan to reduce racial/ethnic disparities in asthma care
- Meant to address Meaningful Use goals
  - Improve quality and safety (CDS and measurement capability)
  - Increase patient and family engagement
  - Improve population and public health

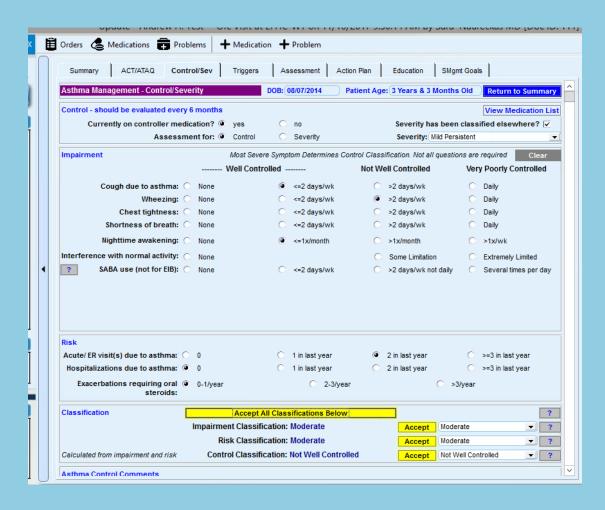
## Landing page — what's missing and what's needed?



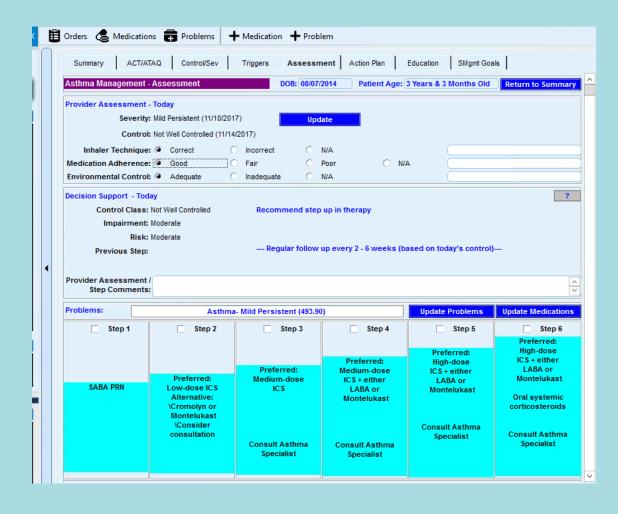
#### Standardized patient reported screener



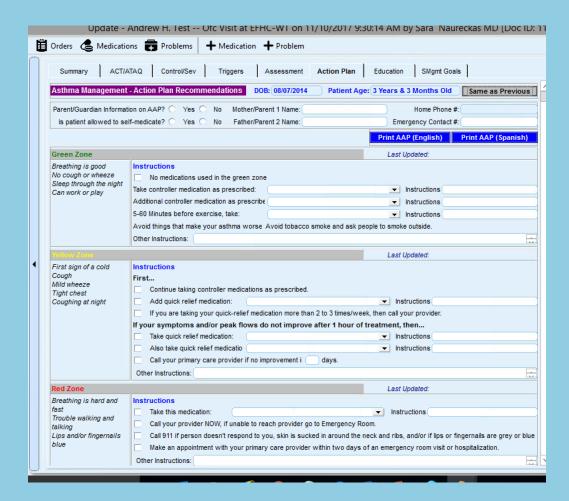
#### Control or Severity, Impairment and Risk



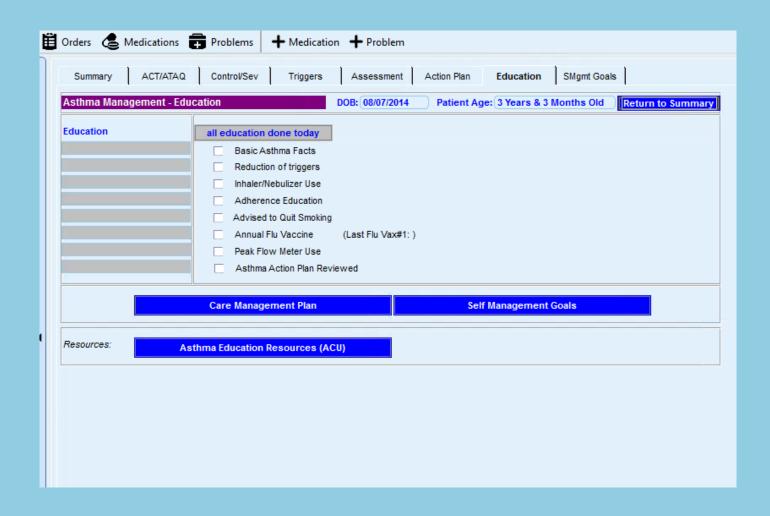
#### Finally! The decision support!



#### Action Plan (based on medication list)



#### Patient and Family Education



#### Lessons learned and thoughts to ponder...

- The "5 rights" of CDS how do you design/choose the best clinical decision support?
  - the right information
  - To the right person
  - In the right format
  - Through the right channels
  - At the right time

Campbell, Robert James. "The Five Rights of Clinical Decision Support: CDS Tools Helpful for Meeting Meaningful Use" *Journal of AHIMA* 84, no.10 (October 2013): 42-47 (web version updated February 2016)

#### Lessons learned and thoughts to ponder...

- Can you realistically put 440 pages of clinical practice guideline into a 10-15 minute pediatric visit??
  - Possibly (probably) not
  - Research shows that for asthma, more experienced clinicians who already know and believe in the guidelines use the CDS more effectively...

Hoeksema et al. JAIMA. 2011 18: 243-250

- Team based care!!!
- Not every tab is for every person or every visit.
- This is hard for clinicians to get their minds around

#### Thank you!

Questions or comments? snaureckas@eriefamilyhealth.org



