

GLIDES Project – Technical Expert Panel

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Overview

- Background/Overview of the Alliance of Chicago
- History of EHRS Adoption and Clinical Decision Support
- GLIDES Asthma Project Overview and lessons learned

OVERVIEW OF ALLIANCE OF CHICAGO

Alliance Overview

- HRSA funded **network/collaborative of Community Health Centers**
- Essentially a joint venture organizations with the desire and ability to work together on building some **common infrastructure to improve service delivery** and health status
- Dedication to **quality** and **use of data** to improve care
- Ability to access higher quality, efficiency and **economy of scale**
- Desire to ultimately **share with others**

500 Providers (MD, NP, PA, DO)

1,077,257 visits



Alliance Programs

Electronic
Medical
Records &
HIT

Quality
Improvement
& Research

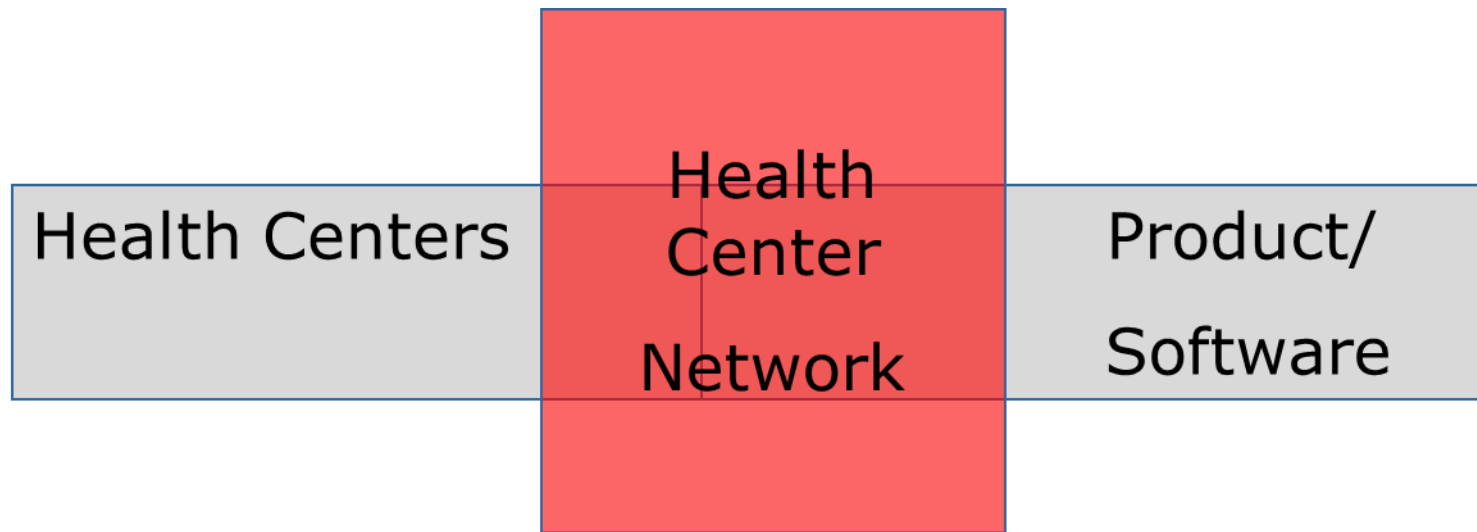
Consulting &
Technical
Assistance

Technology
Innovations
&
Partnerships

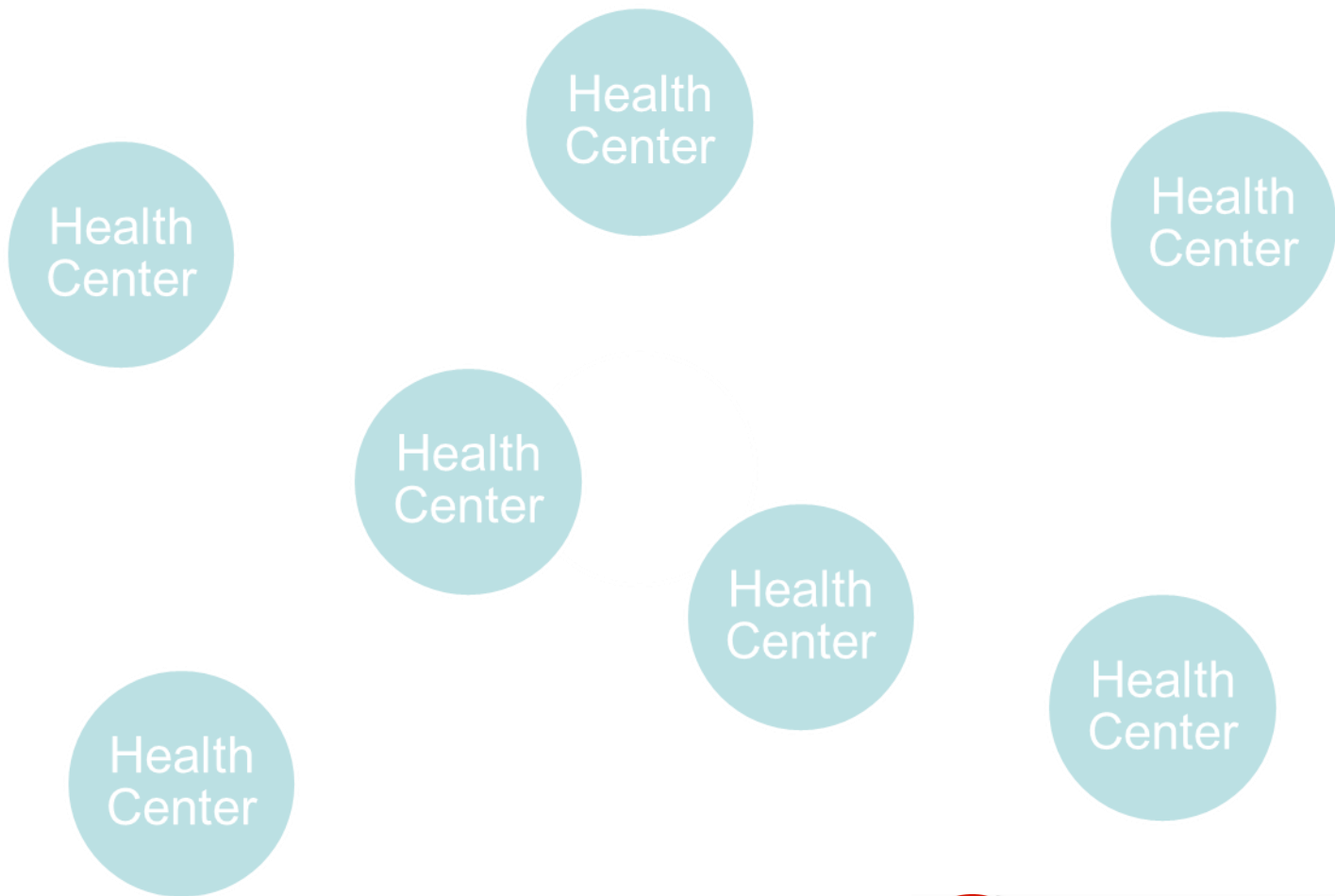


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Community Health Services, LLC

Network Role in HIT Implementation and Support

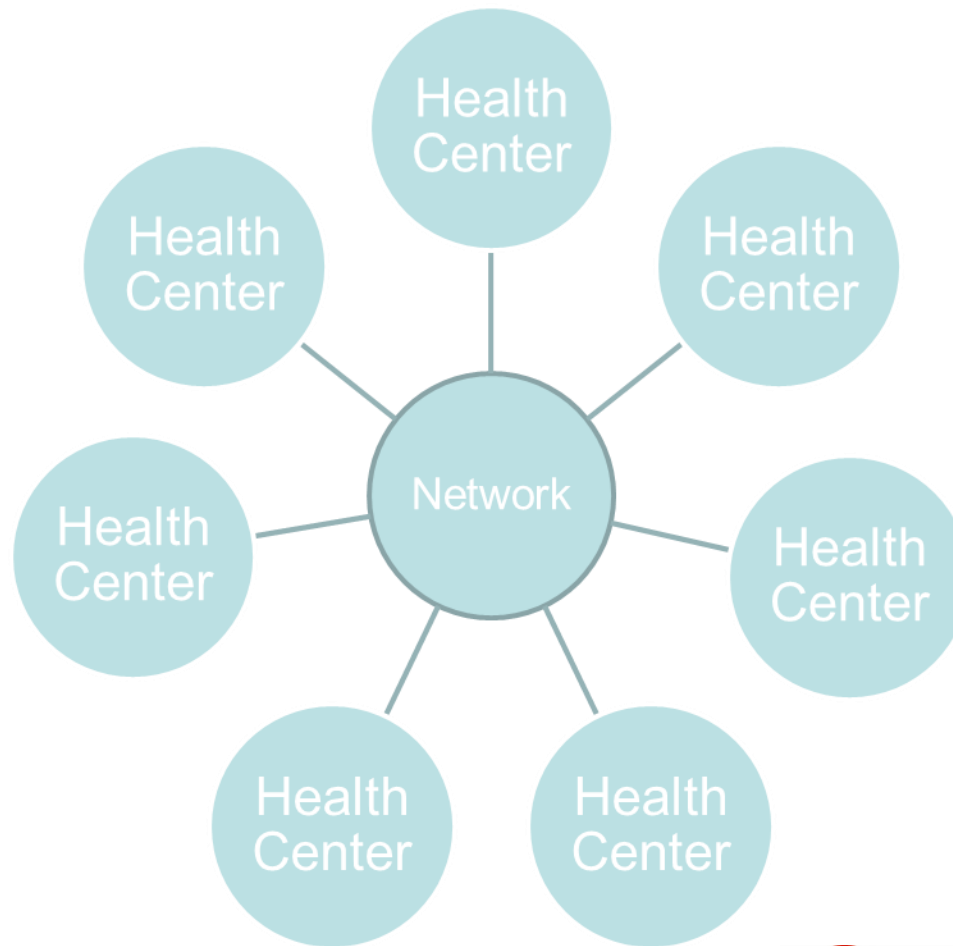


Health Centers Working Independently



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A Learning Community

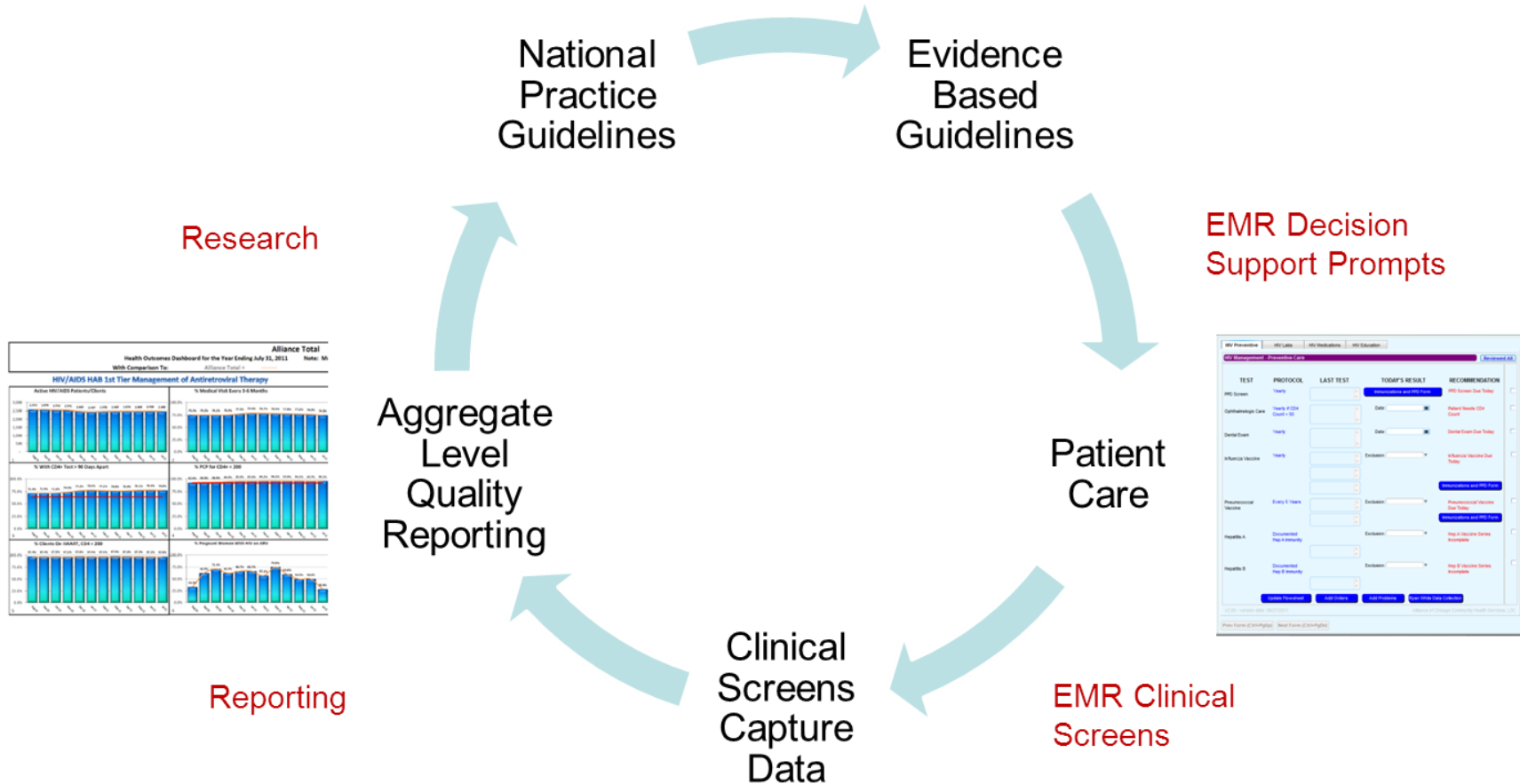


2012 Goals

- Provide HIT support to member health centers with a particular focus on achieving Meaningful Use and Patient Centered Medical Home Certification
- Strength the collaborative learning model to foster/promote use of evidenced-based care, improved financial sustainability, and overall excellence
- Implement HIT tools to support patient engagement
- Implement shared infrastructure to enable multi-institutional, patient-centered research
- Support member health center readiness to leverage the EHR, Data Analytics Platform, and Patient Engagement technologies for participation in Accountable Care.

HISTORY OF EHRS ADOPTION AND CDS

Link between EMR Adoption and Quality



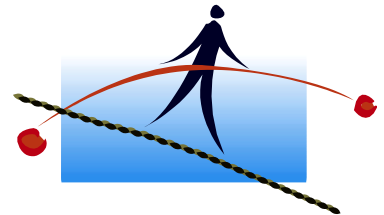
Clinical Content Development

- **Benefit**

- Directly address **CHC needs** that affect us all
- **Structured, standardized data mapping** for reporting needs

- **Challenge**

- Consistently **meeting the needs** across all Alliance Health Centers
- Keeping up with the **volume** of requests for clinical content development

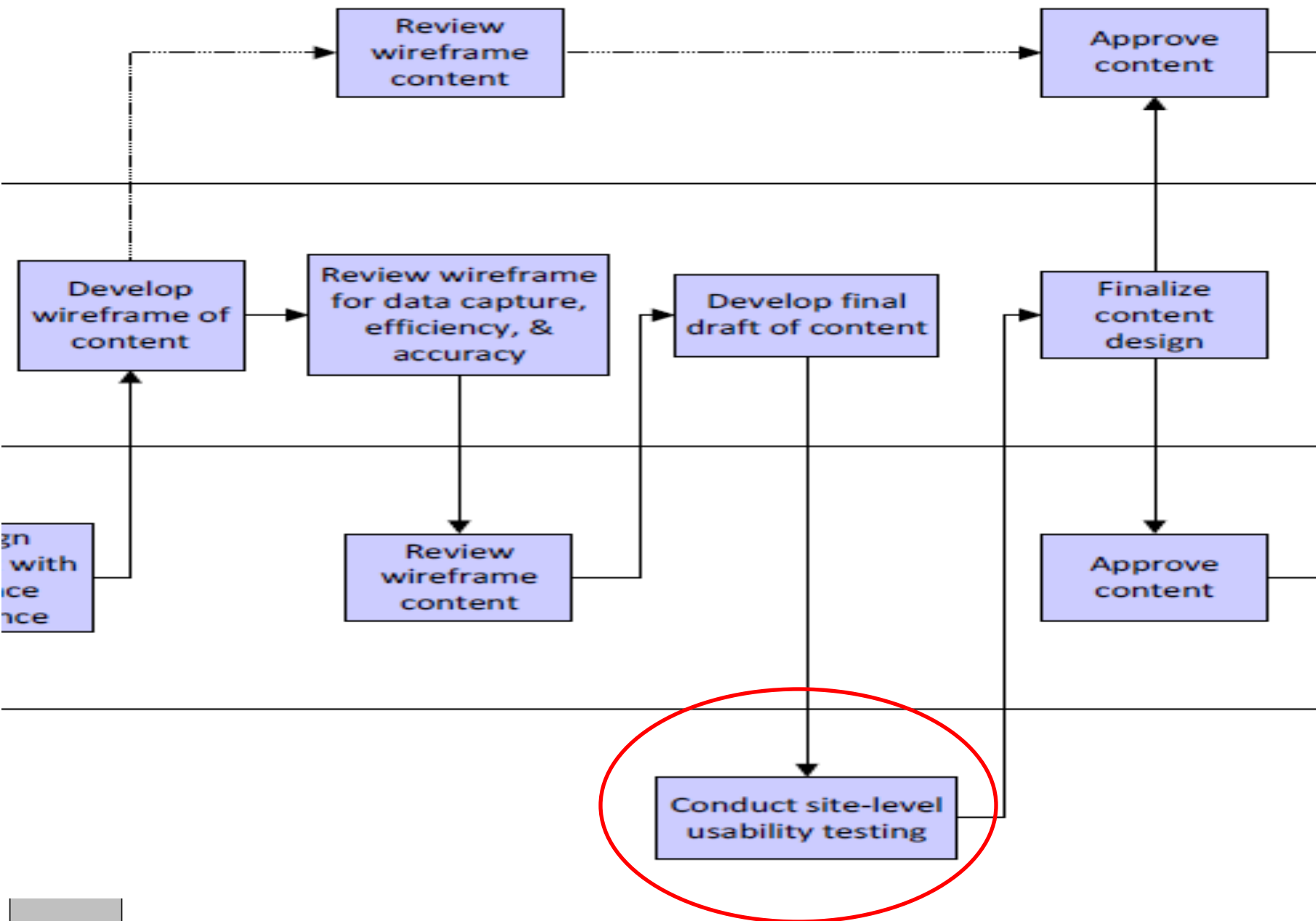


Mission & Vision

- Create clinical content that can be used for **safe, quality patient care** at Alliance Health Centers.
- Design content with the **full patient workflow in mind**, not just a singular task.
- Foster **efficient, effective operations**.
- Facilitate **real-time EHR documentation**.
- Promote **best-practice and evidence-based guidelines** for clinical care.
- Facilitate **data** extraction and review.



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Usability Survey

2. Simplicity

Simplicity

Does information presented seem uniform and organized, or chaotic? Simplicity refers to having a lack of visual clutter and concise information display. Simplicity is difficult to achieve as the more complex a task becomes, the more important it is to maintain a sense of simplicity. Think of a "less is more" philosophy while assessing this principle.

Please answer/rate the following questions on a 1-5 scale.

- 1 - Terrible
- 2 - Poor
- 3 - Fair
- 4 - Good
- 5 - Excellent

1. Please rate how well visual clutter is minimized:

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

2. Please rate the degree of ease in visually following onscreen formatting to move from one topic/option to the next:

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

3. With respect to simplicity as a whole, please rate the Patient History form:

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

4. Additional comments on simplicity:

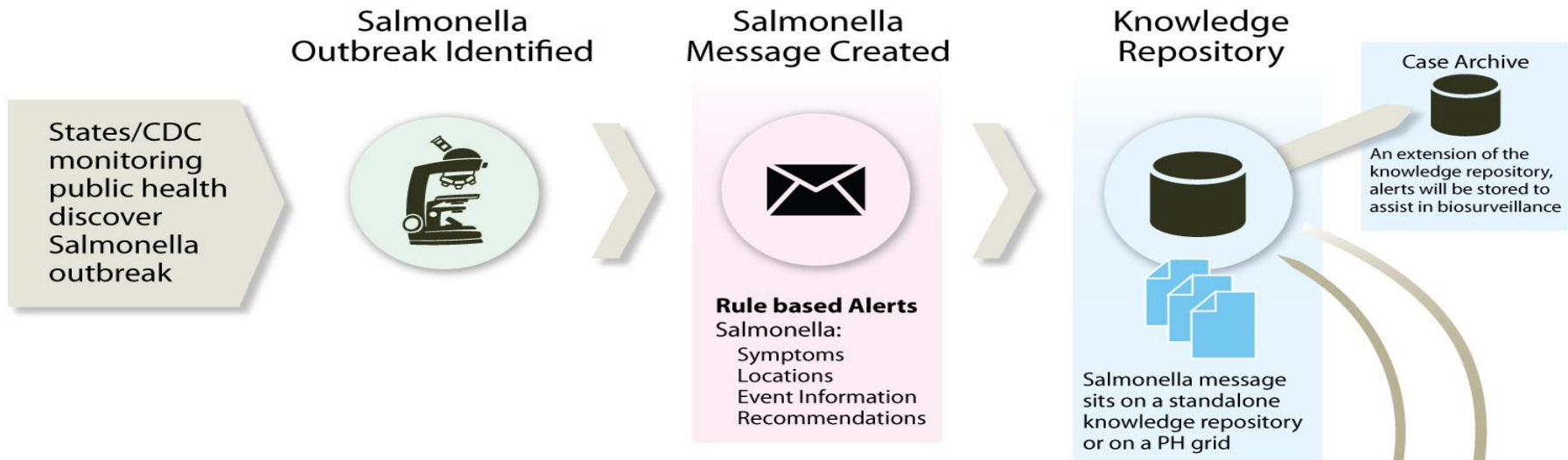
Measuring Usability

- The brief survey that is distributed to all clinicians selected to evaluate content usability
- The results of the survey are reviewed with clinical sponsor and SMEs
- Changes based on user feedback are incorporated into the revised content
- The survey is redistributed at 3-6 months to evaluate impact of changes

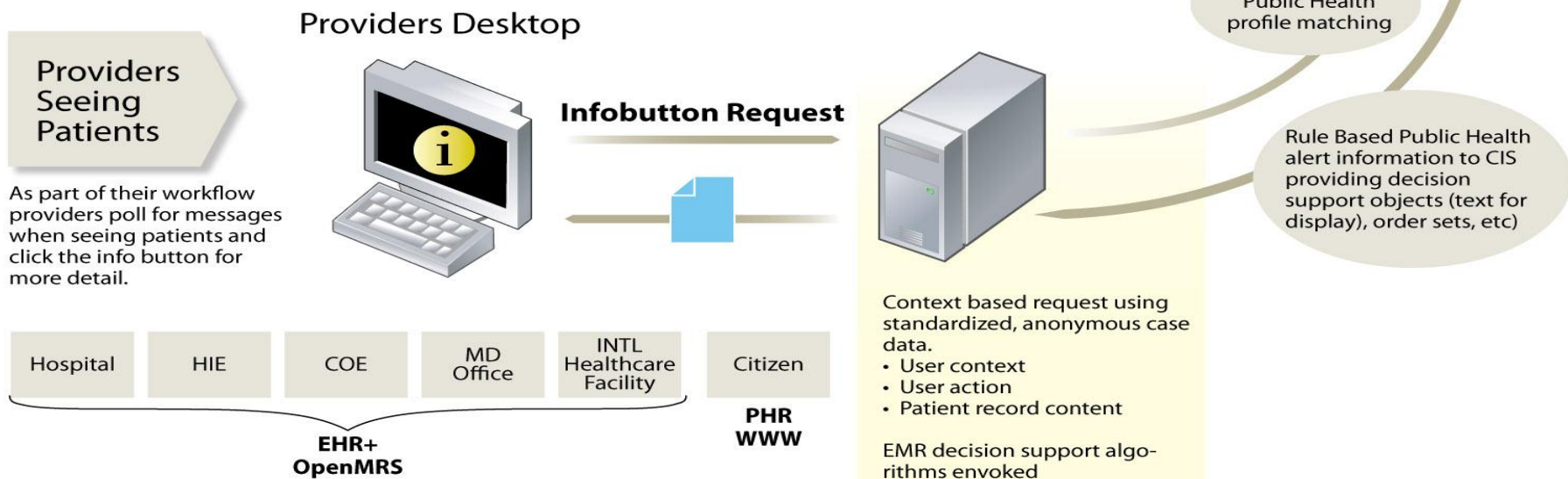
Testing Cloud Based CDS

Salmonella Outbreak Scenario

Public Health Agency



Medical Community



Physical Exam Form with ALERT

Physical Exam: CDC Test

Gen/Eyes ENT Nck/Chst Resp CV GI GU Lym/Skin MSK EXT Neur/MSE

Physical Exam

ALERT! Multistate Outbreak of E. coli O157:H7 Infections Associated with Lebanon Bologna, Multistate Outbreak of E. coli O157:H7 Infections Associated with In-shell Hazelnuts [View Alert](#)

General Appearance:

Eyes

External:

Pupils:

Ophthalmoscopic:

TEST CDC v2.05 - version date xx/xx/2011 Alliance of Chicago Community Health Services, LLC

Info Button

Physical Exam: CDC Test

Gen/Eyes ENT Nck/Chst Resp CV GI GU Lym/Skin MSK EXT **Neur/MSE**

Physical Exam

EMR Test

View Alert

CDC Centers for Disease Control and Prevention
Your Online Source for Credible Health Information

Current Public Health Alerts for:

› infobuttonEventNotification.effectiveTime.v=20110518122707-0600&age.v.v=46&age.v.unit=a&patientPerson.administrativeGenderCode.dn=Female&serviceDeliveryLocation.Id.extension=606&s

! Multistate Outbreak of E. coli O157:H7 Infections Associated with Lebanon Bologna

Shiga toxin-producing Escherichia coli (STEC) | Event: E. coli O157:H7 Infections Associated with Lebanon Bologna | Alert Source: CDC/NCEZID/DFWED | Urgency: Unknown | Areas: Pennsylvania North Carolina New Jersey Maryland Ohio | 2011-03-24 04:00:00.000 - 2011-05-30 10:00:00.000

CDC is collaborating with public health officials in many states and the U.S. Department of Agriculture's Food Safety and Inspection Service (USDA/FSIS) to investigate a multistate outbreak of *Escherichia coli* O157:H7 infections. Investigators are using DNA analysis of *E. coli* O157:H7 bacteria obtained through diagnostic testing to identify cases of illness that may be part of this outbreak.

As of March 22, 2011, 14 persons infected with the outbreak strain of *E. coli* serotype O157:H7 have been reported from Maryland (3 cases), New Jersey (2 cases), North Carolina (1 case), Ohio (2 cases) and Pennsylvania (6 cases). Reported dates of illness onset range from January 10, 2011 to February 15, 2011. Ill persons range in age from 1 to 70 years, with a median age of 13.5 years. Seventy-nine percent are male. Among 13 ill persons for whom information is known, 3 or 23%, reported being hospitalized, and none have reported hemolytic uremic syndrome (HUS), a type of kidney failure that is associated with *E. coli* O157:H7 infections. No deaths have been reported.

The outbreak can be visually described with a chart showing the number of people who became ill each day. This chart is called an [epidemic curve or epi curve](#). Illnesses that occurred after March 2, 2011, might not be reported yet due to the time it takes between when a person becomes ill and when the illness is reported. This takes an average of 2 to 3 weeks. Please see the [Timeline for Reporting of E. coli Cases](#) for more details.

Collaborative investigative efforts of local, state, federal public health and regulatory agencies have associated this outbreak with eating Lebanon bologna. Lebanon bologna is a fermented, semi-dry sausage. This beef product has an appearance similar to salami. In an epidemiologic study conducted during March 15-18, a total of 13 ill persons answered questions about foods consumed during the days before becoming ill, and investigators compared their responses to those of 21 persons of similar age previously reported to state health departments with other illnesses ("controls"). Ill persons (69%) were significantly more likely than controls (0%) to report eating Lebanon bologna. Additionally, four ill persons have been identified who purchased Seltzer Brand Lebanon bologna at four different grocery store locations in three states before becoming ill.

Palmyra Bologna Company, of Palmyra, PA, is recalling approximately 23,000 pounds of Lebanon bologna products that may be contaminated with *E. coli* O157:H7. Consumers are advised to review the [USDA's FSIS Recall Press Release](#) for a list of recalled products and images of the product.

+ Show/Hide Details

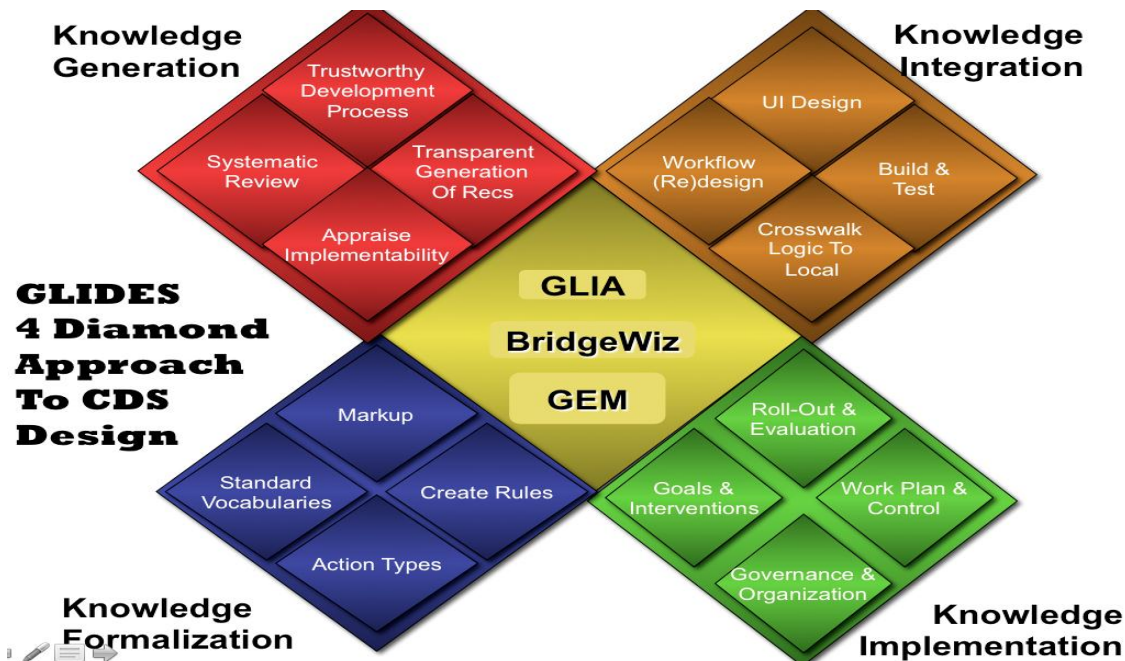
! Multistate Outbreak of E. coli O157:H7 Infections Associated with In-shell Hazelnuts

Shiga toxin-producing Escherichia coli (STEC) | Event: Multistate Outbreak of E. coli O157:H7 Infections Associated with In-shell Hazelnuts | Alert Source: CDC/NCEZID/DFWED | Urgency: Routine | Areas: Wisconsin Michigan Minnesota | 2011-03-10 10:00:00.000 - 2011-05-30 10:00:00.000

Overview of GLIDES Project

Expected Outcomes

- Update EMR based CDS for Asthma Management to reflect most current NHLBI Guidelines
- Incorporate EPA standards related to collecting asthma trigger data and developing interventions, (eg, large scale education programs)
- Demonstrate the use of GLIDES based CDS Implementation Toolkit



Phase 1: Building Revised Content

- Reviewed the Asthma CDS available from GLIDES
- Incorporated GLIDES CDS into Alliance Content
- Expanded GLIDES content to include EPA Standards for documenting and managing Asthma Triggers
- Key Deliverables:
 - Revised Asthma Content & CDS
 - Documentation of the lessons learned and key challenges associated with incorporating CDS developed “externally”

Assessment of Asthma Severity

Pediatric

Asthma Control: Billy S. Pendergast

CLASSIFYING COMPONENTS OF ASTHMA SEVERITY AND INITIATING TREATMENT

Is patient currently on controller medication? ☐ yes ☒ no

Has this patient's severity been classified? ☐ yes ☒ no

Assessment for: ☐ Control ☒ Severity

----- Persistent -----

Impairment	Intermittent	Mild	Moderate	Severe
Cough due to asthma	<input type="radio"/> None	<input type="radio"/> ≤2 days/wk	<input checked="" type="radio"/> >2 days/wk	<input type="radio"/> All Day
Wheezing	<input type="radio"/> None	<input checked="" type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk	<input type="radio"/> All Day
Chest tightness	<input type="radio"/> None	<input type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk	<input checked="" type="radio"/> Daily
Shortness of breath	<input type="radio"/> None	<input checked="" type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk	<input type="radio"/> All Day
Nighttime awakening	<input type="radio"/> None	<input checked="" type="radio"/> ≤1x/month	<input type="radio"/> 1-2x/month	<input type="radio"/> >1x/week
Interference with normal activity Reduction in school/play/work	<input type="radio"/> None	<input type="radio"/> <-----	<input type="radio"/> Mild	<input type="radio"/> Severe
SABA use (not for EIB)	<input type="radio"/> None	<input type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk but r	<input type="radio"/> Several times per

Impairment Classification:

Risk	0	1 in last year	2 in last year	3 in last year	≥4 in last year
Acute/ ER visit(s) due to asthma	<input type="radio"/> 0	<input type="radio"/> 1 in last year	<input type="radio"/> 2 in last year	<input type="radio"/> 3 in last year	<input type="radio"/> ≥4 in last year
Hospitalizations due to asthma	<input type="radio"/> 0	<input type="radio"/> 1 in last year	<input type="radio"/> 2 in last year	<input type="radio"/> 3 in last year	<input type="radio"/> ≥4 in last year
Exacerbations requiring oral systemic corticosteroids	<input type="radio"/> 0-1/year	<input type="radio"/> ≥2 exacerbations in last 6 months		<input type="radio"/> ≥4 wheezing episodes/1 year	

AND for persistent asthma

Medication Adverse Effect

☐ Thrush
☐ Palpitations
☐ Jitteriness
☐ Sleep Disturbances
☐ Decreased Growth
☐ Other

Comments

Risk Classification:

Asthma Severity Classification: Moderate Persistent



Adult Severity

Asthma Control: Scott L. Davenport

CLASSIFYING COMPONENTS OF ASTHMA SEVERITY AND INITIATING TREATMENT

Is patient currently on controller medication? ☐ yes ☒ no

Has this patients severity been classified? ☐ yes ☒ no

Assessment for: ☐ Control ☒ Severity

----- Persistent -----

Impairment	Intermittent	Mild	Moderate	Severe
Cough due to asthma	<input type="radio"/> None	<input type="radio"/> ≤2 days/wk	<input checked="" type="radio"/> >2 days/wk	<input type="radio"/> Daily
Wheezing	<input type="radio"/> None	<input type="radio"/> ≤2 days/wk	<input checked="" type="radio"/> >2 days/wk	<input type="radio"/> Daily
Chest tightness	<input type="radio"/> None	<input type="radio"/> ≤2 days/wk	<input checked="" type="radio"/> >2 days/wk	<input type="radio"/> Daily
Shortness of breath	<input type="radio"/> None	<input checked="" type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk	<input type="radio"/> Daily
Nighttime awakening	<input type="radio"/> None	<input checked="" type="radio"/> ≤2x/month	<input type="radio"/> 3-4x/month	<input type="radio"/> >1x/wk
Interference with normal activity Reduction in school/play/work	<input type="radio"/> None	<input type="radio"/> <-----	<input type="radio"/> Mild	<input type="radio"/> Moderate
SABA use (not for EIB)	<input type="radio"/> None	<input type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk but r	<input type="radio"/> Daily
Lung Function				
Normal FEV ₁ /FVC:				
8-19 yr 85%	<input type="radio"/> FEV>80% predict	<input type="radio"/> <-----	<input type="radio"/> <-----	<input type="radio"/> FEV=60-80% pre
20-39 yr 80%	<input type="radio"/> FEV/FVC normal	<input type="radio"/> <-----	<input type="radio"/> <-----	<input type="radio"/> FEV/FVC - 5%
40-59 yr 75%				<input type="radio"/> FEV<60% predict
60-80 yr 70%				<input type="radio"/> FEV/FVC - >5%

Impairment Classification:

Risk	0	1 in last year	2 in last year	3 in last year	≥4 in last year
Acute/ER visit(s) due to asthma	<input type="radio"/> 0	<input type="radio"/> 1 in last year	<input type="radio"/> 2 in last year	<input type="radio"/> 3 in last year	<input type="radio"/> ≥4 in last year
Hospitalizations due to asthma	<input type="radio"/> 0	<input type="radio"/> 1 in last year	<input type="radio"/> 2 in last year	<input type="radio"/> 3 in last year	<input type="radio"/> ≥4 in last year
Exacerbations requiring oral systemic corticosteroids	<input type="radio"/> 0-1/year		<input type="radio"/> ≥2/year		

AND for persistent asthma

Medication Adverse Effect

☐ Thrush
☐ Palpitations
☐ Jitteriness
☐ Sleep Disturbances
☐ Decreased Growth
☐ Other

Comments

Risk Classification:

Asthma Severity Classification: Mild Persistent

Assessment of Asthma Control

Pediatric

Asthma Control: Billy S. Pendergast

CLASSIFYING COMPONENTS OF ASTHMA CONTROL

Is patient currently on controller medication? ☒ yes ☐ no

Assessment for: ☒ Control ☐ Severity

Impairment	Well Controlled	Not Well Controlled	Poorly Controlled
Cough due to asthma	<input type="radio"/> None	<input checked="" type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk
Wheezing	<input type="radio"/> None	<input checked="" type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk
Chest tightness	<input type="radio"/> None	<input type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk
Shortness of breath	<input type="radio"/> None	<input type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk
Nighttime awakening	<input type="radio"/> None	<input type="radio"/> ≤1x/month	<input type="radio"/> >1x/month
Interference with normal activity Reduction in school/play/work	<input type="radio"/> None	<input type="radio"/> <-----	<input checked="" type="radio"/> Some Limitation
SABA use (not for EIB)	<input type="radio"/> None	<input type="radio"/> ≤2 days/wk	<input checked="" type="radio"/> >2 days/wk but not dai

Impairment Classification: **Severe**

Risk

Acute/ ER visit(s) due to asthma	<input type="radio"/> 0	<input checked="" type="radio"/> 1 in last year	<input type="radio"/> 2 in last year	<input type="radio"/> ≥3 in last year
Hospitalizations due to asthma	<input type="radio"/> 0	<input type="radio"/> 1 in last year	<input checked="" type="radio"/> 2 in last year	<input type="radio"/> ≥3 in last year
Exacerbations requiring oral steroids	<input type="radio"/> 0-1/year	<input checked="" type="radio"/> 2-3/year	<input type="radio"/> >3/year	

Medication Adverse Effect

☐ Thrush
☐ Palpitations
☐ Jitteriness
☐ Sleep Disturbances
☐ Decreased Growth
☐ Other

Comments

Treatment-related adverse effects

Risk Classification: **Moderate**

Asthma Control Classification: **Poorly Controlled**

Adult Control

Asthma Control: Scott L. Davenport

CLASSIFYING COMPONENTS OF ASTHMA CONTROL

Is patient currently on controller medication? ☐ yes ☒ no

Has this patients severity been classified? ☐ yes ☒ no

Assessment for: ☒ Control ☐ Severity

Impairment	Well Controlled	Not Well Controlled	Poorly Controlled
Cough due to asthma	<input type="radio"/> None	<input checked="" type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk
Wheezing	<input type="radio"/> None	<input checked="" type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk
Chest tightness	<input type="radio"/> None	<input checked="" type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk
Shortness of breath	<input type="radio"/> None	<input checked="" type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk
Nighttime awakening	<input checked="" type="radio"/> None	<input type="radio"/> ≤2x/month	<input type="radio"/> 1-3x/wk
Interference with normal activity Reduction in school/play/work	<input checked="" type="radio"/> None	<input type="radio"/> <-----	<input type="radio"/> Some Limitation
SABA use (not for EIB)	<input type="radio"/> None	<input checked="" type="radio"/> ≤2 days/wk	<input type="radio"/> >2 days/wk but not dai
FEV1 or peak flow	<input type="radio"/> ----->	<input type="radio"/> >80% predicted	<input type="radio"/> 60 - 80% predicted
ACT Score	<input type="radio"/> ----->	<input type="radio"/> ≥= 20	<input type="radio"/> 16 - 19
			<input type="radio"/> >=4x/wk
			<input type="radio"/> Extremely Limited
			<input type="radio"/> Several times per day
			<input type="radio"/> <60% predicted
			<input type="radio"/> ≤= 15

Impairment Classification: Minimal

Risk	0	1 in last year	2 in last year	>=3 in last year
Acute/ER visit(s) due to asthma	<input type="radio"/> 0	<input checked="" type="radio"/> 1 in last year	<input type="radio"/> 2 in last year	<input type="radio"/> >=3 in last year
Hospitalizations due to asthma	<input type="radio"/> 0	<input checked="" type="radio"/> 1 in last year	<input type="radio"/> 2 in last year	<input type="radio"/> >=3 in last year
Exacerbations requiring oral steroids	<input checked="" type="radio"/> 0-1/year		<input type="radio"/> >=2/year	

Risk Classification: Low

Asthma Control Classification: Well Controlled

Medication Adverse Effect

☐ Thrush
☐ Palpitations
☐ Jitteriness
☐ Sleep Disturbances
☐ Decreased Growth
☐ Other

Comments

Assessment of Triggers

Asthma Management - TEST: Billy S. Pendergast

Summary Severity Control Medications **Triggers** AActionPlan- 1 AAction Plan- 2 Pt Question.

Triggers:

Current Exposure?

Allergies:

Dust Mtes:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown	<input type="checkbox"/> + allergy test	Comments: <input type="text"/>	<input type="checkbox"/>
Pollen/Cut Grass/Flowers:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown	<input type="checkbox"/> + allergy test	Comments: <input type="text"/>	<input type="checkbox"/>
Animals:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown	<input type="checkbox"/> + allergy test	Comments: <input type="text"/>	<input type="checkbox"/>
Mice/Rats/Cockroaches:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown	<input type="checkbox"/> + allergy test	Comments: <input type="text"/>	<input type="checkbox"/>
Indoor Mold:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown	<input type="checkbox"/> + allergy test	Comments: <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown	<input type="checkbox"/> + allergy test	Comments: <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown	<input type="checkbox"/> + allergy test	Comments: <input type="text"/>	<input type="checkbox"/>

Irritants:

Tobacco Smoke:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown		Comments: <input type="text"/>	<input type="checkbox"/>
Outdoor Pollution:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown		Comments: <input type="text"/>	<input type="checkbox"/>
Wood Smoke:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown		Comments: <input type="text"/>	<input type="checkbox"/>
Chalk Dust:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown		Comments: <input type="text"/>	<input type="checkbox"/>
Cleaning Products:	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown		Comments: <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown		Comments: <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unknown		Comments: <input type="text"/>	<input type="checkbox"/>

Current Allergy List: **Update Allergies**

Comorbidities -

Please review patients problem list for diagnosis that may impact achma including GERD, Rhinitis, and Depression

Asthma Assessment

Asthma Assessment: Billy S. Pendergast

Previous Control Classification		Previous Severity Classification	
Control Class:		Severity Class:	Moderate Persistent
Impairment:	Moderate		
Risk:	Moderate		
Previous Step:	Step 3		

Provider Assessment - Today

Current level of control is: ☐ Well Controlled ☒ Not Well Controlled ☐ Very Poorly Controlled

Inhaler Technique: ☒ Correct ☐ Incorrect ☐ N/A

Adherence: ☐ N/A ☒ Good ☐ Fair ☐ Poor

Environmental Control: ☒ Adequate ☐ Inadequate ☐ N/A

Coexisting Conditions: ☐ yes ☐ no

Psychosocial Factors: ☐ yes ☐ no

Alternative Dx ("e.g. vocal cord dysfunction"): ☐ yes ☐ no

Decision Support - Today

Control Class: **Not Well Controlled** Recommend step up in therapy

Impairment: **Moderate**

Risk: **Moderate** --- Regular follow up every 2 - 6 weeks ---

☐ Re-Classify Patient Asthma Severity

Intermittent Asthma ☐ Step 1 ☐ Step 2 ☒ Step 3 ☐ Step 4 ☐ Step 5 ☐ Step 6

Persistent Asthma: Daily Medication

Provider Assessment / Step Comments:

	Preferred: Low-dose ICS Alternative: Cromolyn or Montelukast	Preferred: Medium-dose ICS	Preferred: Medium-dose ICS + either LABA or Montelukast	Preferred: High-dose ICS + either LABA or Montelukast	Preferred: High-dose ICS + either LABA or Montelukast Oral systemic corticosteroids
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Asthma Medication Management

ASTHMA MEDICATION: Billy S. Pendergast

Problems	Medications	Allergies
OTITIS MEDIA (ICD-382.9)		
<input type="button" value="Update Problems"/>	<input type="button" value="Update Meds"/>	<input type="button" value="Update Allergies"/>

Selected Treatment Step : 3

Quick-Relief
Short acting B-2 agonist

Long Term Control
Preferred
1. Medium-dose inhaled steroid

FLOVENT 110 1 puff BID
PULMICORT 0.5 MG/2ML SUSP
QVAR 40 2 puffs BID
QVAR 80 2 puffs BID



Asthma Action Plan

Asthma Management - TEST: Billy S. Pendergast

Summary Severity Control Medications Triggers AActionPlan- 1 AAction Plan- 2 Pt Question.

Asthma Management - Asthma Action Plan Recommendations

Green Zone [Definition](#)

Peak Flow Range
More than:
No previous result

Instructions ☐ Reviewed

Take controller medications as prescribed.

☐ Before exercise, take puffs of 5-60 minutes before exercise.

Avoid things that make your asthma worse.

Avoid tobacco smoke.

Ask people to smoke outside.

Other

Instructions:

Yellow Zone [Definition](#)

Peak Flow Range
From:
To:

Instructions

First...

☒ Continue taking controller medications as prescribed.

☒ Add quick-relief medication:

☐ If you are taking your quick-relief medication more than 2 to 3 times/week, then call your provider.

If your symptoms and/or peak flows do not improve after 1 hour of treatment, then...

☐ Take quick relief medication:

☐ Take quick relief medication:

☐ Call your primary care provider if no improvement in days.

Other

Instructions:

Red Zone [Definition](#)

Peak Flow Range
Less than:

Instructions

☒ Take this medication:

☐ Call your provider NOW.

☒ Go to the nearest emergency room.

☐ Call 911 if person doesn't respond to you, skin is sucked in around the neck and ribs, and/or if lips or fingernails are grey or blue.

☐ Make an appointment with your primary care provider within two days of an emergency room visit or hospitalization.

Other

Instructions:

Phase 2: Evaluating Results

- Conduct Usability Testing
- Incorporate SME Feedback into revised CDS
- Train Key Staff on New Asthma CDS
- Support implementation of New Asthma CDS
- Evaluate Clinician Adoption and Satisfaction with Revised CDS

Key Deliverables

- Documentation of Usability Testing Results
- Synthesize results of CDS Satisfaction survey and Adoption Measures
- Correlate system use with quality

Key Lessons Learned

- Exchange of content required HIT vendor involvement – to coordinate customized data element usage
- Technical limitations/capacity of the EHRs to support complex CDS
- Maintained underlying “programming” however adjusted content/CDS to meet “local” workflows and system preferences
- Incorporated changes based on user feedback to increase usability of content
- Lack of alignment of data standards (value sets) between CDS and Quality Reporting

Thank You

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