Disclaimer

HRSA does not endorse any products or vendors featured in this PDF. These slides are not 508 compliant.

Please do not distribute without the permission of HRSA.
HRSA Health Information Technology and Quality Webinar

“Using Clinical Decision Support in Safety Net Provider Settings"

March 22, 2013
Office of Health Information Technology and Quality

Additional HRSA Health IT and Quality Toolboxes and Resources, including past Webinars, can be found at:

http://www.hrsa.gov/healthit
http://www.hrsa.gov/quality

Additional questions can be sent to the following email address:

HealthIT@hrsa.gov

U.S. Department of Health and Human Services
Health Resources and Services Administration
Upcoming HRSA Health IT and Quality Announcements

- Next HRSA Health IT and Quality Webinar, “Using an EHR for Health Information Exchange and Interoperability,” Friday, April 26, 2pm EST. Register Now.


- Coming Soon! New HRSA Health IT Workforce Modules for Health Centers


- Two New HRSA Grantee Spotlights
  - HRSA Health IT Web site: “Marshfield Clinic Research Foundation – Using mHealth to Support Heart Health”

- New CMS Meaningful Use Interactive Resource on Stage 2 and the 2014 Clinical Quality Measures
Introduction

Presenters:

- **Clinical and Quality Leaders, Community Health Center Inc., Middletown, CT**
  - Daren Anderson, MD, Chief Quality Officer
  - Veena Channamsetty, MD, Associate Chief Medical Officer
  - Bernadette Thomas, APRN, Chief Nursing Officer

- **Lisa Gall, DNP, RN, CFNP, L_HIT-HP**
  Family Nurse Practitioner,
  HIT Consultant MN/ND REACH (REC),
  Subject Matter Expert,
  Stratis Health/REACH, Bloomington, MN
Using Data to Drive Improvements

Improving Care for the Underserved
With Clinical Decision Support

Daren Anderson, MD • VP/Chief Quality Officer

Veena Channamsetty, MD • Associate Chief Medical Officer

Bernadette Thomas, APRN, DNP, MPH • Chief Nursing Officer
Our Vision: Since 1972, Community Health Center, Inc. has been building a world-class primary health care system committed to caring for underserved and uninsured populations and focused on improving health outcomes, as well as building healthy communities.

CHC Inc. Profile:
- Founding Year – 1972
- Primary Care Hubs – 13
- No. of Service Locations – 218
- Licensed /Total SBHC locations – 26/175
- Organization Staff – 600

Innovations
- Integrated primary care disciplines
- Fully integrated EHR
- Patient portal and HIE
- Extensive school-based care system
- “Wherever You Are” Health Care
- Centering Pregnancy model
- Residency training for nurse practitioners
- New residency training for psychologists

Three Foundational Pillars
- Clinical Excellence
- Research & Development
- Training the Next Generation
Clinical Decision Support

- Clinical decision support (CDS) is the use of health IT to provide clinicians and/or patients with clinical knowledge and patient-related information, intelligently filtered or presented at appropriate times, to enhance patient care.

- Clinical knowledge of interest could include simple facts and relationships, established best practices for managing patients with specific disease states, new medical knowledge from clinical research, and many other types of information.
Training Is Critical

The Clinical Decision Support System (CDSS) Tab

- From the **Right Panel**, select the **CDSS** tab. The **Clinical Decision Support System Alerts** are designed to automatically generate Healthcare Maintenance Reminders based on the age and medical history of the patient.
- The **CDSS Alerts** are to be monitored regularly by the entire clinical staff, especially for **Initial and Well visits**. They are also one of the tools used for the team huddles.

CHC Training Group, August 2012
Severe Interaction Alerts

As a result of setting the default for the Drug-Drug Interactions window to Severe, the window will pop up in the Manage Orders window after the medication is selected and the OK button is clicked to return to the Treatment window:
## CDS: Order Sets

### Description | Date | Status
--- | --- | ---
Basic Metabolic Panel w/eGFR | - | Other Actions
Comp Metabolic Panel w/eGFR | - | Other Actions
C-Peptide | - | Other Actions
TSH w/Free T4 rfx | - | Other Actions
Insulin | - | Other Actions
Hemoglobin A1c w/Calculation | - | Other Actions
Microalbumin, Rand Ur (w/creat) | - | Other Actions
Lipid Panel | - | Other Actions
Cortisol, Free 24 Hour Urine | - | Other Actions
Vitamin B12, serum | - | Other Actions
CBC (Includes Diff/Pr) | - | Other Actions

### Procedures

### Immunizations

| Name | Dose | Date | Status |
--- | --- | --- | --- |
Influenza CHC (.36 Mos and above with preservative) | 0.5mL | - | Other Actions
PPV 23 (Adults and high risk children over 2) | 0.5 mL | - | Other Actions
Tdap > 18 Years old | 0.5 mL | - | Other Actions
Herpes Zoster (Shingles) | 0.65mL | - | Other Actions

### Appointments

- Follow-Up Ini: 4W
- Follow-Up Ini: 2M
- Follow-Up Ini: 3M
- Follow-Up Ini: 1 week with RN for insulin titration

### Referrals

- Outgoing Referral for: CHC-BH Groups
- Outgoing Referral for: CHC-PharmD
- Outgoing Referral for: CHC-CDE
- Outgoing Referral for: CHC-Dental
- Outgoing Referral for: Ophthalmology
- Outgoing Referral for: Podiatry - Surgical Chiropody
- Outgoing Referral for: CHC-GP
- Outgoing Referral for: CHC-Nutrition
- Outgoing Referral for: CHC-Mental Health
Alert Fatigue?

Patient Hub (test, cdss1)

Test, cdss1
635 Main street
Middletown, CT-06457
DOB: 01/24/1951
Age: 62 Y
Sex: F
Advance Directive: Yes
WebEnabled: Yes
Account No: 872033

Patient Balance: $0.00
Collection Status: Assigned To:
Account Balance: $0.00

Last Appt: 06/04/2011 07:15 AM
Next Appt: Facility: 144:New London Medical
Bumped Appts: NONE
Case Manager Hx:

CDSS Alerts
There are no overdue alerts today for this patient.

Practice Alerts
- [G] VZV adult: (Herpes Zoster (Shingles))
- [G] Lipids women: (Lipid Panel)
- [G] physical exam: (physical exam)
- [G] Tdap booster: (Tdap > 18 Years old)

Registry Alerts
There are no overdue alerts today for this patient.

MU Clinical Measures Exclusions
- Influenza Immunization for Patients 50 Years Old
- Diabetes: Hemoglobin A1c Poor Control
- Diabetes: Blood Pressure Management
- Diabetes: Low Density Lipoprotein (LDL) Management
- Adult Weight Screening and Follow Up
Combining Data With Supporting Systems

Reducing missed opportunities for screening
Basic Process

• **Pre-huddle**
  - MA reviews CDSS for scheduled visits next day
  - MA notes things that are due on a paper copy of the schedule
  - RN reviews patient schedule for vaccine needs/
    SM needs/other disease management needs

• **Huddle**
  - Booked into schedule each day
  - MA convenes huddle 5 minutes before start of patient schedule
  - Brief review by team of what is due, discussion of plan for complex cases
**Morning Huddle Process Map**

**MA**
- Print schedule for the next day from Centricity
- **Pre-Huddle (Day before)**
  - Review patients from printed Centricity schedule for planned care items
  - Times: 30 minutes
  - Using CDSS as a guide, review patients for planned care such as eligible, received or test ordered: mamos,
  - Using CC as a guide, review what patient needs for visit: u/]x, hgb, foot exam, etc.
- **Morning Huddle**
  - Team huddle occurs every morning with MA as leader. RN contributes additional information acquired through his/her pre-huddle work.
  - Review patients that were scheduled today using CDSS and CC as a guide to prepare for 12:58 update.
- **PM Huddle**
  - Second team huddle occurs every afternoon at 12:58 with MA as leader. Update on patients that were added to schedule or any patient that was not discussed during the morning huddle.
  - Review patients that were scheduled today using CDSS and CC as a guide to prepare for 12:58 update.

**RN**
- **Pre-Huddle (Day before)**
  - Review patients for any vaccinations, IM goals or education needed.
- **Morning Huddle**
  - Team huddle occurs every morning with MA as leader. RN contributes additional information acquired through his/her pre-huddle work.
  - Review patients that were scheduled today using CDSS and CC as a guide to prepare for 12:58 update.
- **PM Huddle**
  - Second team huddle occurs every afternoon at 12:58 with MA as leader. Update on patients that were added to schedule or any patient that was not discussed during the morning huddle.
  - Review patients that were scheduled today using CDSS and CC as a guide to prepare for 12:58 update.

**Provider**
- May interpret any additional clinical needs for the patient based on cc or planned care.

- May interpret any additional clinical needs for the patient based on cc or planned care.
Reduction in Screening Missed Opportunities With New Huddle Process

Missed Opportunities: Agency-Wide

- A1C testing
- Breast cancer screening
- Depression screening
- Colorectal cancer screening

[Line graph showing trends in missed opportunities for various screenings over time]
Cancer Screening Trends Post-Huddle Process

- Mammogram
- PAP
- Colon CA

Graph showing trends from summer 11 to fall 12.
## Opioid Dashboard

### Chronic Opioid Patients

Data as of: 5/25/2012

<table>
<thead>
<tr>
<th>Practice</th>
<th>Total of Chronic Opioid Patients</th>
<th>Total Current Opioid Patients</th>
<th>Panel Size (12 mos)</th>
<th>% of Panel on Chronic Opioids</th>
<th>Total of 1-oxo Patients (12 mos)</th>
<th>% of Opioid Contract (ever)</th>
<th>Total of Contract Patients (ever)</th>
<th>% of Opioid Contract (12 mos)</th>
<th>Total of Remittance Survey Patients</th>
<th>% of Survey Patients (12 mos)</th>
<th>% of Patients Not Satisfied with Remittance Services</th>
<th>% Not Satisfied within 2 mos</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boise ARTN, Beth</td>
<td>2</td>
<td>2</td>
<td>94</td>
<td>2.13%</td>
<td>1</td>
<td>90.00%</td>
<td>2</td>
<td>100.00%</td>
<td>1</td>
<td>90.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Berryton MD, Alvin</td>
<td>48</td>
<td>48</td>
<td>1554</td>
<td>4.05%</td>
<td>17</td>
<td>35.42%</td>
<td>32</td>
<td>55.57%</td>
<td>16</td>
<td>35.35%</td>
<td>1.08%</td>
<td>6.00%</td>
</tr>
<tr>
<td>Marlow ARTN, Paul</td>
<td>82</td>
<td>82</td>
<td>1032</td>
<td>7.64%</td>
<td>50</td>
<td>69.90%</td>
<td>60</td>
<td>60.90%</td>
<td>54</td>
<td>65.90%</td>
<td>29.27%</td>
<td>15.22%</td>
</tr>
<tr>
<td>Saffold MD, Orange</td>
<td>51</td>
<td>51</td>
<td>1058</td>
<td>4.71%</td>
<td>25</td>
<td>49.62%</td>
<td>30</td>
<td>59.52%</td>
<td>22</td>
<td>62.14%</td>
<td>0.00%</td>
<td>4.08%</td>
</tr>
<tr>
<td>Lake SD, Teresa</td>
<td>4</td>
<td>4</td>
<td>760</td>
<td>6.15%</td>
<td>2</td>
<td>39.00%</td>
<td>1</td>
<td>25.00%</td>
<td>0</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Latimer MS, Dorothy</td>
<td>56</td>
<td>56</td>
<td>1109</td>
<td>4.49%</td>
<td>32</td>
<td>57.34%</td>
<td>35</td>
<td>62.90%</td>
<td>22</td>
<td>39.29%</td>
<td>0.00%</td>
<td>6.10%</td>
</tr>
<tr>
<td>Chambers M.D., Vienna</td>
<td>12</td>
<td>12</td>
<td>826</td>
<td>1.45%</td>
<td>6</td>
<td>50.00%</td>
<td>7</td>
<td>58.33%</td>
<td>4</td>
<td>33.33%</td>
<td>1.00%</td>
<td>8.33%</td>
</tr>
<tr>
<td>Carry MS, Pamela</td>
<td>2</td>
<td>2</td>
<td>511</td>
<td>0.29%</td>
<td>1</td>
<td>20.00%</td>
<td>1</td>
<td>20.00%</td>
<td>0</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Ladd ARTN, Dawn</td>
<td>9</td>
<td>9</td>
<td>159</td>
<td>5.77%</td>
<td>8</td>
<td>56.67%</td>
<td>7</td>
<td>77.78%</td>
<td>7</td>
<td>77.78%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Denzer ARTN, Nanise</td>
<td>115</td>
<td>115</td>
<td>1078</td>
<td>7.65%</td>
<td>81</td>
<td>70.55%</td>
<td>102</td>
<td>86.59%</td>
<td>90</td>
<td>86.59%</td>
<td>0.00%</td>
<td>7.00%</td>
</tr>
<tr>
<td>Altezen ARTN, Rachel</td>
<td>13</td>
<td>13</td>
<td>719</td>
<td>1.81%</td>
<td>7</td>
<td>34.50%</td>
<td>9</td>
<td>36.12%</td>
<td>4</td>
<td>30.77%</td>
<td>0.00%</td>
<td>3.00%</td>
</tr>
<tr>
<td>Domarski MD, Hartline</td>
<td>20</td>
<td>20</td>
<td>1181</td>
<td>2.46%</td>
<td>12</td>
<td>41.38%</td>
<td>22</td>
<td>75.84%</td>
<td>10</td>
<td>65.52%</td>
<td>0.00%</td>
<td>4.00%</td>
</tr>
<tr>
<td>Casady ARTN, Debra</td>
<td>9</td>
<td>9</td>
<td>345</td>
<td>1.07%</td>
<td>5</td>
<td>35.56%</td>
<td>6</td>
<td>56.67%</td>
<td>2</td>
<td>22.22%</td>
<td>1.11%</td>
<td>1.11%</td>
</tr>
<tr>
<td>Edwards ARTN, Amy</td>
<td>19</td>
<td>19</td>
<td>998</td>
<td>1.00%</td>
<td>5</td>
<td>26.32%</td>
<td>12</td>
<td>53.33%</td>
<td>9</td>
<td>47.37%</td>
<td>0.00%</td>
<td>4.00%</td>
</tr>
<tr>
<td>Leiby MD, Laberta</td>
<td>22</td>
<td>22</td>
<td>1152</td>
<td>1.19%</td>
<td>9</td>
<td>27.27%</td>
<td>9</td>
<td>46.11%</td>
<td>3</td>
<td>13.64%</td>
<td>2.00%</td>
<td>3.64%</td>
</tr>
<tr>
<td>Griesbach MD, Marissa</td>
<td>13</td>
<td>13</td>
<td>109</td>
<td>6.41%</td>
<td>8</td>
<td>51.43%</td>
<td>5</td>
<td>76.67%</td>
<td>4</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Henneman MD, Sondra</td>
<td>3</td>
<td>3</td>
<td>804</td>
<td>6.34%</td>
<td>3</td>
<td>33.33%</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Hackett PD, Kathleen</td>
<td>84</td>
<td>84</td>
<td>1068</td>
<td>7.02%</td>
<td>21</td>
<td>26.00%</td>
<td>61</td>
<td>72.65%</td>
<td>51</td>
<td>60.71%</td>
<td>0.00%</td>
<td>12.00%</td>
</tr>
<tr>
<td>Karras MD, Lorraine</td>
<td>40</td>
<td>40</td>
<td>168</td>
<td>8.19%</td>
<td>17</td>
<td>35.42%</td>
<td>24</td>
<td>56.00%</td>
<td>21</td>
<td>45.75%</td>
<td>9.00%</td>
<td>10.00%</td>
</tr>
<tr>
<td>Anderson ARTN, Sarah</td>
<td>23</td>
<td>23</td>
<td>780</td>
<td>2.94%</td>
<td>14</td>
<td>60.87%</td>
<td>13</td>
<td>36.53%</td>
<td>7</td>
<td>30.43%</td>
<td>0.00%</td>
<td>4.00%</td>
</tr>
</tbody>
</table>
### Chronic Pain Missed Opportunities Report

<table>
<thead>
<tr>
<th>Provider</th>
<th>Total Current Chronic Opioid Patients with visit last week</th>
<th>Total Missed Opioid (last 6-month)</th>
<th>Total Missed Opioid Agreement (last 12-month)</th>
<th>Total Missed Opioid Score/Survey (last 3-month)</th>
<th># of completed surveys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson MD, Dana</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Avichana APRN, Tara</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ayusha MD, Souther, FP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Barber MD, Alvin</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Black APRN, Tray</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wardman APRN, Mary, FP</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Roop VAR, Oram, FP</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Butler MD, Donna</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Chiaravalloti MD, Venita, FP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Chandrasekaran APRN, Aparna</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cotel APRN, Dana</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Decker APRN, lids, FP</td>
<td>18</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>DeLapaci APRN, Nefi, FP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Gislope APRN, Lynn, FP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Gearhart MD, Heilin, FP</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Greider APRN, Debra</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dudley MD, Robert, FP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Edinger APRN, Ann, FP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Black MD, Rebecca</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pett MD, Alan, FP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Johnson MD, Embry, FP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Data as of: 7/28/2012 11:55:05 AM

Parameters: run for week 7/9/2012 12:00:00 AM
Next Steps With “Lean”

- Gaps in screening process remain
- Lean tools used to develop new process to manage abnormal results
New Workflow to “Close the Loop” With Abnormal Screening Results

CHC Abnormal Cancer Screen Process — Future State
Summary

- CDS are not created equal.
- Workflows and teamwork are essential for maximizing the utility of CDS and managing alert fatigue.
- Practices may need to choose which CDS to prioritize.
- CDS monitoring improves compliance, team performance, and patient care.
Contacts

Mark Masselli
President/CEO
ph: 860.347.6971 x3620
e-mail: mark@chc1.com

Margaret Flinter, APRN, PhD
Senior Vice President/Clinical Director
ph: 860.347.6971 x3622
e-mail: margaret@chc1.com

Margaret Drozdowsk-Maule, DMD
Chief Dental Officer
ph: 860.224.3642 x5167
e-mail: maggie@chc1.com

Bernadette Thomas, APRN, DNP, MPH
Chief Nursing Officer
ph: 860.347.6971 x3008
e-mail: thomasb@chc1.com

Nwando Olayiwola, MD, MPH
Chief Medical Officer
ph: 860.347.6971 x3728
e-mail: nwando@chc1.com

Daren Anderson, MD
Vice President/Chief Quality Officer
ph: 860.347.6971 x3740
e-mail: andersd@chc1.com

Tim Kearney, PhD
Chief Behavioral Health Officer
ph: 860.347.6971 x3507
e-mail: kearnetr@chc1.com

Margaret Drozdowski-Maule, DMD
Chief Dental Officer
ph: 860.224.3642 x5167
e-mail: maggie@chc1.com

Veena Channamsetty, MD
Associate Chief Medical Officer
ph: 860.347.6971 x3009
e-mail: channav@chc1.com

Bernadette Thomas, APRN, DNP, MPH
Chief Nursing Officer
ph: 860.347.6971 x3008
e-mail: thomasb@chc1.com
Clinical Decision Support in Action: A Case Example

Regional Extension Assistance Center for HIT (REACH)

Lisa Gall, DNP, RN, CFNP, LHI-HP
Family Nurse Practitioner
HIT Consultant MN/ND REACH (REC)
SME for Stratis Health
Session Goals

Demonstrate how one clinic used the EHR and Clinical Decision Support Tools to

✓ Improve patient care
✓ Improve workflows, information flow
✓ Enhance patient engagement
✓ Address performance incentives and initiatives
✓ Challenges, Resolutions, Tips in CDS
Leveraging CDS and the EHR to Improve Care: A Case Example

- Rural critical access hospital
- 1 main clinic – 9 providers
  - MD, NP, PA
  - FP, IM, OB/GYN
- 3 satellite clinics – 1-2 providers
- Primary care, convenience care
- EHR implemented in 2010
Choosing a Target

Vascular Disease - Blood Pressure

Patient Needs

Minnesota: Community Measure

CMS: Meaningful Use

Third Party Payers: Pay 4 Performance

Patient: Improved Outcomes

Patient: Improved Outcomes

2008 Report (2007 DOS) (* Avg: 54%)
2009 Report (2008 DOS) (* Avg: 58%)
2011 Report (2010 DOS) (* Avg: 67%)
2012 Report (2011 DOS) (* Avg: 84%)

REACH - Achieving meaningful use of your EHR
Targeting Key Clinic Processes To Improve Care

Key clinical processes

1. Patient flow in clinic
2. Order entry
3. Documentation
4. Results review
5. Flow sheets
6. Alerts, reminders
7. Appointment scheduling
8. Clinical summaries
9. Patient education
10. Clinical references

People

1. Preferences
2. Attitudes, skills

Technology

1. EHR capabilities
Leveraging the EHR to Improve Care: BP Monitoring and Control

<table>
<thead>
<tr>
<th>Barriers</th>
<th>How we met challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP rechecks</td>
<td>• Educate nurses</td>
</tr>
<tr>
<td></td>
<td>• Clinic protocols</td>
</tr>
<tr>
<td>Stakeholder buy-in</td>
<td>• Early involvement</td>
</tr>
<tr>
<td></td>
<td>• Communication</td>
</tr>
<tr>
<td></td>
<td>• Best Practices</td>
</tr>
</tbody>
</table>
Leveraging the EHR to Improve Care: BP Monitoring and Control (cont.)

<table>
<thead>
<tr>
<th>Barriers</th>
<th>How we met challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to clinical information</td>
<td>• “Smart” Face sheet</td>
</tr>
<tr>
<td>Documentation inefficiency</td>
<td>• HTN templates</td>
</tr>
<tr>
<td>Order sets</td>
<td>• Optimized order sets</td>
</tr>
<tr>
<td>Flow sheets not user friendly</td>
<td>• Redesigned flow sheets</td>
</tr>
<tr>
<td>Access to home BP logs</td>
<td>• Flow sheet column</td>
</tr>
</tbody>
</table>

* Leverage providers and key stakeholders
Tools to Improve Care Delivery

• What do you have now?
  – Flow sheet, order sets, templates, etc.
  – How can it be improved?

• Revise, build or customize?
  – You or Vendor?
  – Standardize for organization/specialty
  – Customized by provider???

• How can you use it to improve care?
  – Engage patients?
Leveraging the EHR to Improve Care: BP Monitoring and Control (cont.)

<table>
<thead>
<tr>
<th>Barriers</th>
<th>How we met challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inconsistent, inefficient workflows</td>
<td>Standardize workflows</td>
</tr>
<tr>
<td>• Duplicate results</td>
<td>• Results review</td>
</tr>
<tr>
<td>Appointment scheduling</td>
<td>After-visit (clinical) summary</td>
</tr>
<tr>
<td>Pop-up alerts</td>
<td>VS in red/bold</td>
</tr>
<tr>
<td></td>
<td>Pop-ups only for patient safety</td>
</tr>
<tr>
<td></td>
<td>• Medications</td>
</tr>
</tbody>
</table>

*Use pop-up alerts sparingly!*
Leveraging the EHR to Improve Care: BP Monitoring and Control (cont.)

<table>
<thead>
<tr>
<th>Barriers</th>
<th>How we met challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient understanding,</td>
<td>Verbal, printed, electronic</td>
</tr>
<tr>
<td>compliance</td>
<td></td>
</tr>
<tr>
<td>Clinical references</td>
<td>Provider education</td>
</tr>
</tbody>
</table>
Leveraging the EHR to Improve Care: Patient Education and Engagement

Provider Challenges

1. Trust
   - “Paper” favorites

2. Knowledge
   - Where to find content
   - How to use and print

3. Time

Resolutions

1. Inform
   - What (resources)
   - Why (sources)
   - How to access
   - Add to favorites

2. Practice
   - Electronic vs. paper

3. Optimize
   - Order sets
   - Utilize staff
Leveraging the EHR to Improve Care: Patient Education and Engagement (cont.)

• Provider Benefits

  – Picture is worth 1,000 words
  – Saves time, quick access
  – Up-to-date reliable information
  – Modifiable and easy to print
Leveraging the EHR to Improve Care: Patient Education and Engagement (cont.)

• Patient Benefits
  – Patient-specific plan of care
  – Clinical summary
  – Patients more involved
  – Enhances follow-up care
Overview of CDS Strategy

1. **Abnormal VS** displayed in bold red letters
2. **Key clinical data** displayed on EHR face sheet
3. **Flow sheets** for key clinical information, links from main screen
4. **Smart order sets:** recommended labs, diagnostics, medications
5. **Medication classes and interactions** with dosing calculations
6. **Patient education:** written, verbal, electronic
7. **Clinical (after visit) summary**
8. **Schedule follow-up** appointment
9. **HTN Documentation** templates

Target Measure: 80% of patients 18-85, BP<140/90
Understanding and Improving Workflows

During Office Visit

Pre/Post Visit → Check-in, waiting → Exam Room → After Exam Room → Outside Encounters [Population Activities]

Learning and Action Network, Webinar presentation 2/20/2013
Apply the “CDS 5 Rights” to Improve Care

- The **right information**
- To the **right people**
- In the **right intervention**
- Through the **right channels**
- At the **right points in workflow**
Presentation Summary

• Rural hospital and clinic
• Leveraged CDS and EHR to improve care
• Chose quality improvement targets for CDS
  – Improved BP control rates
  – Improving patient education and engagement
• ID key clinical processes to improve efficiency
• Challenges and Resolutions
  – Continuous quality and process improvements
• CDS tools and tips
  – People, processes, and technology
References


Q&A

- Any questions from the case study?
Contact Information

Lisa Gall, DNP, RN, CFNP, LHIT-HP
Family Nurse Practitioner
SME at Stratis Health
Health IT Consultant MN/ND REACH
Email: LGALL@STRATISHEALTH.ORG
Key Health Alliance—Stratis Health, Rural Health Resource Center, and The College of St. Scholastica.

REACH is a project federally funded through the Office of the National Coordinator, Department of Health and Human Services (grant number EP-HIT-09-003).
Clinical Decision Support Resources

- Health Resources and Services Administration ([http://www.hrsa.gov/healthit](http://www.hrsa.gov/healthit))
  - Health IT Adoption Toolbox
  - HIV/AIDS Toolbox
  - Rural Health Toolbox
  - Meaningful Use and Quality Webinars

- Centers for Medicare and Medicaid ([http://www.cms.gov/ehrincentiveprograms](http://www.cms.gov/ehrincentiveprograms))
  - Meaningful Use Resources

- Office of the National Coordinator for Health IT ([http://www.healthit.gov](http://www.healthit.gov))
  - Professionals and Providers
  - Policy Researchers and Implementers

  - Healthcare Information
  - Health IT