THE HIGH ALERT PROGRAM
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Today we will cover:

- High Alert Program overview
- Worklife impact
- Evaluation/Results
High Alert Program Overview

i. Introduction/Program Description
ii. Impact on Work Environments
iii. Evaluation/Results
What is High Alert Program?

- Case Management System
  - Identifies Patients with Complex Needs
  - Identifies Patients with Numerous ED Visits
  - Organizes Clinical Information
  - Creates a Plan for Future Patient Encounters
Evolution of The High Alert Program

- SERT
- Mechanism for filtering out high-utilizers
- Behavior modification
- Avoids pressure to triage out
- Technology breakthrough
- Database intervention and development
- Narcotic termination letters
The Process

- Patient Referral
- Patient Chart Review
- Treatment Plan Creation
- Treatment Plan Implementation

Review

← — — — →
Resource Requirements for Program Development

- Case Management
- Social Work
- IT Support
- Database
- Administrator
- Medical Director
- Nursing Director

Patient
High Alert Levels

Level 4
General Patient Population

Level 3
Patients with Treatment Plan
Compassionate Dialysis
Sickle Cell
CHF

Level 2
Suicidal Patient

Level 1
Dangerous Patient
Examples of Cases

- Chronic Care Management
- Gastric Bypass Patient
- Sickle Cell Anemia
- Heart Transplant
- Fall Precautions
- DNR
- Management of Homeless Patients
Your Biggest Challenge?

- Patient Treatment History
- Boundaries of Care
- Development of the Care Plan
- Identify Appropriate Resources
- Staff and Patient Follow-up
What Does it Take to Implement?
Sample Policy

- Sample Policy Exists
New Application

- Eligibility for SSI
How Does This Process Fit in With New Models of Payment or Care Delivery

- Accountable Care Organizations (ACOs)
- Medical Home
- Quality Care
- Cost Reductions
- Hospital Re-admissions
- Wellness and Prevention Emphasis
Personal Perception

- Faster
- Higher Quality
- Lower Costs
- Less Conflict
Medical Director Perspective

**Eight reasons the HAP is important to our Emergency Departments:**

8) Disciplined, standardized process

* Holds up to JCAHO/Legal Reviews
Old Model – “Winging It”

Key Processes:
- Memory
- Rumor
- Suspicion
- Conflict

*Visit List*
Old Model – “Winging It”

Advantages:
- Easy
- Already in Use

Disadvantages:
- No Continuity
- Poly-pharmacy
- Liability
- Inappropriate
- Wasted Resources

Here last week!
Likes Dilaudid
Cousin in Jail!
New Model – High Alert Program

Process:
- Referrals
- Multiple Inputs
- Research
- Social Work
- Case Management
- PCP
- Documentation
- Director Approval
- Re-evaluations
- Modifications

Advantages:
- Many

Disadvantages:
- Time Consuming
Medical Director Perspective

7) Increases MD job satisfaction

* Worth the costs of HAP!
* Does not “tie the MD’s hands”
* Not “cookbook medicine”
Medical Director Perspective

6) Improves the work life of our nurses
   * Worth the costs of HAP!
   * ED “hardest places to work”
   * World-wide nursing shortage
   * RN/MD partnership on treatment plan
Medical Director Perspective

5) Involves the ED patient’s private MD

* Adds authority to Care Plan
* Engenders trust
* Suggests ramifications/ consequences to bad behaviors

He stole my cell phone last Friday!
Medical Director Perspective

4) Improves quality of care

* Detailed synopsis of issues
* Necessary steps in workup
* Appropriate treatments

*Just another OTD patient……*
Medical Director Perspective

3) Improves speed of care

* Avoids unnecessary calls
* Avoids unnecessary testing
2) Exposes non-compliance

* 48 visits with nary a PCP visit

* 15 different dentist appointments in 1 year!

The care plan says you’re 4 minutes late with my meds!
Medical Director Perspective

1) Decreases conflicts and tensions

* Medical Director gets to be the heavy
* Patient/RN/MD all know the drill
* Defined endpoints for ED visits
Staff Survey

• Non-scientific poll
• Effort to minimize bias
• 10 questions; multiple-choice
• Sent via email employing SURVEY MONKEY
• 39 doctors and 60 nurses responded
Staff Perspective

- Increases MD job satisfaction

**SURVEY RESULTS**

- 100% believe the HAP makes their job easier.
Staff Perspective

• Improves the work life of our nurses

SURVEY RESULTS

• 75% believe the HAP makes their job easier.
Staff Perspective

- Improves quality of care

**SURVEY RESULTS**

- 85% of MDs feel quality is improved.
- 57% of RNs feel quality is improved.
Staff Perspective

- Improves speed of care

SURVEY RESULTS

- 76% of MDs feel LOS is reduced.
- 63% of RNs feel LOS is reduced.
Staff Perspective

- Decreases conflict and tensions within the ED

SURVEY RESULTS

87% of MDs feel conflicts are reduced.

- 50% of RNs feel conflicts are reduced.
Overall Perspective

• Brings a controlled & predictable process to high-stress patient encounters within a chaotic environment
Quality is never an accident, it is always the result of high intention…

William A. Foster
Five Strategies for Reducing Unnecessary Visits

- Chronic Care Management
- Substance Abuse Screening
- Off-Site Center for the Homeless
- Primary Care Liaison
- Collaborative Clinic

This was written in 1993…

...You’ve come a long way Baby!
HAP Enrollments in Study

- Program active at several hospitals
- Studied: 7 hospitals with historical data
- HAP patients in study:
  - 1,269 - met inclusion criteria
    (HAP patients with visit data within the study interval)
# HAP Patient Visits: Study Percentage of Selected Sites and Period

## Time Frame for Data Collection

<table>
<thead>
<tr>
<th></th>
<th>40 Months</th>
<th>12/2006 – 4/2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total # of Visits in Selected HAP Sites over Period</strong></td>
<td>100.0%</td>
<td>513,829</td>
</tr>
<tr>
<td><strong>Total # of HAP Visits</strong></td>
<td>2.3%</td>
<td>11,667</td>
</tr>
<tr>
<td><strong>HAP Visits Excluded from Sample</strong></td>
<td>0.9%</td>
<td>4,791</td>
</tr>
<tr>
<td><strong>HAP Visits in Study</strong></td>
<td>1.3%</td>
<td>6,876</td>
</tr>
</tbody>
</table>
HAP Visits
For 7 Selected Sites Within Period

HAP Visits: 11,667
All Visits: 513,829

% of Total: 2.3%
## HAP Visits in Study
For Selected Sites within Period

<table>
<thead>
<tr>
<th>Site</th>
<th>All Visits</th>
<th>HAP Visits</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site A</td>
<td>126,924</td>
<td>2,041</td>
<td>2.67%</td>
</tr>
<tr>
<td>Site B</td>
<td>118,953</td>
<td>2,431</td>
<td>3.62%</td>
</tr>
<tr>
<td>Site C</td>
<td>92,684</td>
<td>247</td>
<td>0.47%</td>
</tr>
<tr>
<td>Site D</td>
<td>49,774</td>
<td>565</td>
<td>2.20%</td>
</tr>
<tr>
<td>Site E</td>
<td>36,456</td>
<td>567</td>
<td>2.05%</td>
</tr>
<tr>
<td>Site F</td>
<td>13,220</td>
<td>88</td>
<td>0.97%</td>
</tr>
<tr>
<td>Site G</td>
<td>75,818</td>
<td>937</td>
<td>2.06%</td>
</tr>
<tr>
<td>Totals</td>
<td>513,829</td>
<td>6,876</td>
<td>1.34%</td>
</tr>
</tbody>
</table>
HAP Patient Demographics

- Male: 43%
- Female: 57%
Demographics: Age

The bar chart shows the distribution of ages between 0-90+ years. The chart is divided into two categories: HAP and General. The percentages for each age group are indicated on the y-axis.
Interval Sampling-Definition: “HAP Enrollment Interval”

- “Before and After” HAP enrollment intervals were made for each individual patient

- Length of individual intervals were based on patient enrollment date

- “After” HAP enrollment interval consisted of # of days since patient’s enrollment to 5/1/2010

- “Before” interval is then set to equal number of days prior to each patient enrollment
Interval Sampling

**Patient A**
- Pre-Interval
- Enrollment Date
- Post-Interval

**Patient B**
- Pre-Interval
- Enrollment Date
- Post-Interval

Study Begins

Study Ends
HAP Enrollments in Study

- Total HAP Visits in study: 6,876
- HAP visits before: 4,526
- HAP visits after: 2,350
- 48% reduction in number of visits
### HAP Visits/Patient
Before vs. After Enrollment at Selected Sites Over Entire Period

<table>
<thead>
<tr>
<th></th>
<th># Patients Before HAP Enrollment</th>
<th># Patients After HAP Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 6 Visits</td>
<td>1,028</td>
<td>568</td>
</tr>
<tr>
<td>6 to 12</td>
<td>197</td>
<td>65</td>
</tr>
<tr>
<td>12 to 18</td>
<td>34</td>
<td>29</td>
</tr>
<tr>
<td>18 to 24</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>24 +</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>1,269</strong></td>
<td><strong>674</strong></td>
</tr>
</tbody>
</table>
### HAP Visits/Patient

Patients with 2 years of data
(1 Year Interval Before and After)

<table>
<thead>
<tr>
<th></th>
<th># Patients Before</th>
<th># Patients After</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 6 Visits</td>
<td>278</td>
<td>134</td>
</tr>
<tr>
<td>6 to 12</td>
<td>137</td>
<td>44</td>
</tr>
<tr>
<td>12 to 18</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>18 to 24</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>24 +</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Totals</td>
<td>450</td>
<td>212</td>
</tr>
</tbody>
</table>
## HAP Population
### Top Ten Diagnosis

(HAP Patient Visits in Selected Sites within Study Period)

<table>
<thead>
<tr>
<th>HAP Primary Diagnosis</th>
<th>Before</th>
<th>After</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td>LUMBAGO</td>
<td>15.9%</td>
<td>12.6%</td>
<td>6.41%</td>
</tr>
<tr>
<td>HEADACHE</td>
<td>14.7%</td>
<td>12.2%</td>
<td>11.5%</td>
</tr>
<tr>
<td>NAUSEA WITH VOMITING</td>
<td>14.1%</td>
<td>15.6%</td>
<td></td>
</tr>
<tr>
<td>SHORTNESS OF BREATH</td>
<td>10.2%</td>
<td>11.5%</td>
<td></td>
</tr>
<tr>
<td>ABDOMINAL PAIN-OTH SPEC SITE</td>
<td>9.6%</td>
<td>8.9%</td>
<td>11.7%</td>
</tr>
<tr>
<td>NAUSEA ALONE</td>
<td>9.1%</td>
<td>10.4%</td>
<td></td>
</tr>
<tr>
<td>UNS CHEST PAIN</td>
<td>7.3%</td>
<td>9.7%</td>
<td>7.9%</td>
</tr>
<tr>
<td>UNS BACKACHE</td>
<td>6.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAIN IN LIMB</td>
<td>6.4%</td>
<td>5.8%</td>
<td></td>
</tr>
<tr>
<td>UNS MIGRAINE WO INTRACTABLE MIGRAINE</td>
<td>6.2%</td>
<td>6.8%</td>
<td></td>
</tr>
</tbody>
</table>
Key Points re: Diagnosis

- Majority have a pain component
- Top 3 pain-related diagnosis had percentage drop
- 4 of 10 Top Diagnosis follow general population
Lab, CT, X-ray Utilization

Virtually unchanged
- 2.5% increase in lab tests
- 1% decrease in radiology
Services Utilized

Before: 4,526    After: 2,350
Disposition

Before | After | General Pop
--- | --- | ---
Admitted to Hospital | 14.56% | 14.51% | 14.19%
Admitted to ICU | 0.42% | 0.73% | 0.32%
Discharged | 83.09% | 82.46% | 82.26%
Transfer | 1.93% | 2.30% | 3.23%
Length of Visit
Before vs. After

- LOV virtually unchanged
Financial Observation - Professional Only

- HAP Before-Visits shows 11% reduction in collections over general patient population

- HAP After-Visits shows same picture as collection percentages of general patient population
HAP Before Patients
Payer Mix - HAP vs. General Population

<table>
<thead>
<tr>
<th>Payer</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charity</td>
<td>3.29%</td>
</tr>
<tr>
<td>Federal/State</td>
<td>4.79%</td>
</tr>
<tr>
<td>Self Pay</td>
<td>7.30%</td>
</tr>
<tr>
<td>Commercial</td>
<td>-15.37%</td>
</tr>
</tbody>
</table>
HAP Visits Summary
At Selected Sites During Study Period

- 48% reduction in number of visits
- 7.1% increase in number of visits in general patient population at study sites
  - using midpoint of study period
Soft Findings

- Decrease in variation and predictability of outcome
- Results in increased patient safety (e.g. decreased radiation)
- Patients appreciate the fact that you know them when dealing with complex needs
- Impact on Patient Satisfaction Scores unknown
Hard Findings

- Reduced visits by 48%
- No improvement in the LOV data
- No change in percentage of patients to receive Lab and X-ray, but actual drop in line with drop of visits
- Payer Mix Changes after enrollment to mirror general population