Managing Behavioral Issues in Medical Settings

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Psychiatric Nursing Consultation Service
VCU Health System

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#IHIFORUM
Nothing to disclose

Lisa Davis, Thomas Heinrich, Samuel Stroupe, and Tammy Williams today have no relevant financial or nonfinancial relationship(s) within the services described, reviewed, evaluated, or compared in this presentation.
Session Objectives

- Describe proactive processes for managing behavioral issues and disorders, including alcohol withdrawal, in medical settings
- Discuss effective processes for emergency response to behavioral issues and alcohol withdrawal in medical settings
- Identify and address environmental safety issues and learning needs of staff in medical settings
Vizient Patient Safety Organization (PSO)

- The Vizient Patient Safety Organization (formerly the University Health System Consortium Safety Intelligence PSO) became federally-listed by AHRQ in 2008
- National participation of healthcare providers across 39 states and over 280 providers
- PSOs collect and analyze data in a standardized format using the AHRQ Common Formats to identify safety improvement opportunities and share learnings widely.

AHRQ = Agency for Healthcare Research and Quality
Vizient PSO Program Offerings

Participation in the Vizient PSO provides:

**Educational opportunities**
- Educational web conferences on PSQIA and developing a PSES
- Case law updates at in-person meetings and web conferences 4x/year
- Monthly topical safety webinars with member leading practices
- PSO officer education on high reliability and culture of safety 6x/year
- Evidence-based and expert consensus resources, toolkits and safety alerts

**Collaborative opportunities**
- PSO Safe Table discussions amongst PSO clinical leaders/content experts
- In-person networking meeting twice annually
- PSO listserver collaboration
- PSO Safety Huddles 5x/month
  - General hospital, Pediatric, Academic Medical Center, Ambulatory Care
- Expert advisory groups on various safety topics
- Quarterly User Groups

Managing behavioral issues in medical settings was the top safety priority identified by Vizient PSO members for our 2018 projects.
Behavior-related issues in medical settings

Types of Events Reported

There were more reports of patient aggression, but suicide- and contraband-related events led to serious harm more often.

- Disruptive, aggressive, or assaultive: 48%
- Contraband/unauthorized articles: 33%
- Suicide-related or self-harm: 9%
- Other or unspecified event: 10%

Locations of Events

Inpatient medical units reported more behavior-related issues and events resulting in serious harm or death.

- Inpatient units: 60%
- Emergency department: 20%
- Outpatient clinics: 10%
- *Ancillary services: 5%
- Public or other areas: 5%
- Perioperative areas: 5%

Vizient Patient Safety Organization aggregate data for January 2017-March 2018; Total number of events = 2,725; excludes behavioral health areas. Location was not identified in 599 events and were not included. *Ancillary services include radiology, rehabilitation, diagnostic, cardiovascular, respiratory, laboratory, pharmacy, etc.

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# Key findings in behavior-related issues

## Assaultive behavior
- Primarily committed by patients against staff or other patients
- Most common in ED
- Common causes
  - Mental health issues
  - Delirium or dementia
  - Substance use
  - History of violence

## Unauthorized articles
- Types of articles
  - Most common was illegal drugs, alcohol or unauthorized pills
  - Sharps or weapons
- Ingested, snorted, or injected drugs via their own syringes or existing I.V.s. and in some cases, patients were found unresponsive, hypotensive and/or lethargic.

## Suicide-related
- Most common method was strangulation or hanging using cords from equipment, sheets, belts or clothing and ligature points
- 14% of events led to serious harm or death; more were reported on inpatient units.
- More common among older adults in medical than behavioral settings

## Contributing factors
- Inadequate assessment, observation or care planning
- Environmental safety issues and insufficient inspection of patient and visitor belongings
- Discharge to home without adequate support or an inappropriate level of care

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Vizient Patient Safety Organization aggregate data for January 2017-March 2018; Total number of events = 2,725; excludes behavioral health areas.

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Key recommendations

• Establish proactive processes for screening, assessment and ongoing management of patients with behavioral issues.

• Compliment proactive processes with behavioral emergency response plans.

• Identify and mitigate environmental safety hazards, conditions and situations that can lead to violence, suicide or self-harm.

• Conduct education and training programs on managing behavioral issues based on staff members’ roles and responsibilities.
NYU School of Medicine

Using an alcohol withdrawal protocol to improve patient safety outcomes

Tim Stroupe, MD, Deputy Chief - Director, Psychiatric ED/CL Services
NYU Langone Brooklyn
Continuing Education Disclosure

• No financial disclosures
Overview

• To describe the implementation of a multidisciplinary protocol based on symptom-triggered therapy and CIWA-based activations of rapid response teams

• To demonstrate the positive impact of this protocol and process and outcome measures of patient safety
Agenda

1. Introduction to NYU Langone Hospital - Brooklyn
2. Alcohol Withdrawal Protocols: past and present
3. Results, lessons learned and next steps
NYU Langone Hospital – Brooklyn

- 450 bed complex teaching medical center that transitioned from a community hospital in Sunset Park, Brooklyn
- 24,000 annual discharges
- We have a multitude of specialties including but not limited to:
  - Level 1 Trauma
  - General Internal Medicine
  - Interventional Neurology
  - Advanced Endoscopy
  - Comprehensive Stroke Center
  - Vascular Surgery
  - General Surgery
    - Colorectal
    - Hepatobiliary
    - Surgical Oncology
    - Robotic
    - Bariatric
Socioeconomic factors for our patients

• High proportion of underserved and underprivileged patients (uninsured, undocumented, non-English speaking)

• Higher incidence of alcohol and drug use and related diseases among people with lower levels of income, education, and employment
Agenda

1. Introduction to NYU Langone Hospital - Brooklyn
2. Alcohol Withdrawal Protocols: past and present
3. Results, lessons learned and next steps
NYULH-B Alcohol Withdrawal Protocols

Inpatient detox unit was state regulated and frequently used fixed tapering protocols to treat alcohol withdrawal, leading to longer hospital stays with greater use of benzodiazepines.

Patients with medically complicated withdrawal syndromes were admitted to Medicine with little consistency between providers regarding benzo use and benzo dosing. Delirium with violence and disruptive behavior that occur during these states.

2016
Symptom triggered therapy associated with lesser use of benzodiazepines (BZD), shorter duration of treatment, and less time required in higher level of care.
NYULB Alcohol Withdrawal Protocol

Three main types of patients:
1) Mild (CIWA < 8)
2) Moderate (CIWA 8 - 15)
3) Severe (CIWA > 15)
Education of Providers

- Nurse education on CIWA of videotaped patients and validation of assessment against standard scores
- Introduction of alcohol withdrawal flowsheets into Epic including CIWAs and treatments over time
- House staff and nurse practitioner video course
- Continuously educating staff on CIWA and symptom triggered therapy
  - Including one-on-one education from Addiction Consultant NP and RN to RN validation of scores
Implementation of Protocol

- Nurse-led CIWA assessments with better provider communication
- Frequent nurse/provider collaboration upon initiation of treatment
- Deploying rapid response teams for CIWA score greater than 15
- Education regarding appropriate initial medications, triggers for titration of medications, or upgrade to higher level of care
Why use a Rapid Response Team (RRT)?

• Responds to patients with CIWA scores of greater than 15
• Allows for quicker triage and escalation when appropriate
• Expedites administration of higher dose benzodiazepines in highest risk patients
• Assesses patients with primary team at bedside and provides timely, frequent feedback to team to reduce CIWA score variation
• Facilitates care continuity, e.g., patient requires higher level of care
Agenda

• Introduction to NYU Langone Health
• Alcohol Withdrawal Protocols: past and present
• Results, lessons learned and next steps
Process Measure

Time from Max CIWA Score to CIWA Score < 8 (Hours)

39%
Outcome Measures

• O/E Mortality
  – 100% improvement

• Case Mix Index (CMI)
  – 12% increase

• ICU Utilization
  – 6% decrease
Lessons Learned

• Protocol led to higher value care that was safer and cost neutral

• Providers noted increased familiarity in treating patients with alcohol withdrawal, leading to earlier recognition and treatment

• Rapid Response Team rounds expedited identification of patients at risk for decompensation and earlier dosing of benzodiazepines
Next Steps

• Continued provider reassurance about safe benzodiazepine dosing

• Standardization of practice in CIWA assessment given variation of scores across providers

• More frequent rounding by primary teams
No Inpatient Psychiatry Unit: No Problem

Thomas W. Heinrich, MD, FACLCP
Professor of Psychiatry & Family Medicine
Froedtert and the Medical College of Wisconsin
Disclosures

Thomas W. Heinrich, MD, FACLP

With respect to the following presentation, there has been no relevant financial relationship between the party listed above (and/or spouse/partner) and any for-profit company which could be considered a conflict of interest.
Overview

• Appreciate one approach to behavioral health emergency response teams
• Understand the potential role of proactive behavioral health consultation in the general medical setting
The Problem:

“We didn’t sign-up for this.”
A Case…

- A 32 year old male with a known history of polysubstance use along with a reported history of “bipolar-schizophrenia” is admitted after a MVA in which he suffered multiple fractures.
- On the second day of admission (POD#1), he becomes agitated with the staff.
  - Eventually he strikes a nurse.
  - Security is called and the patient is placed in physical restraints.
  - 8 hours later he is still restrained and unmedicated.
- During ortho rounds it is suggested that someone call psychiatry to treat his “bipolar-schizophrenia”.
Making the Case...

Primary BH Inpatient Volume Trend

FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018

0 | 1200 | 1400 | 1600 | 1800
Making the Case...

Inpatient BH Volume at our AMC (without a psych unit…)

FY 2018

- No BH
- Secondary BH
- Primary BH
## Making the Case…

<table>
<thead>
<tr>
<th></th>
<th>Average Daily Census</th>
<th>Primary BH Diagnosis</th>
<th>Primary Medical Diagnosis with BH Secondary Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sequence 1-2</td>
</tr>
<tr>
<td>Inpatient</td>
<td>7.43</td>
<td></td>
<td>20.12</td>
</tr>
<tr>
<td>Observation</td>
<td>1.40</td>
<td></td>
<td>2.25</td>
</tr>
<tr>
<td>Total</td>
<td>8.83</td>
<td></td>
<td>22.36</td>
</tr>
</tbody>
</table>
Making the Case...
Negative Consequences

- Adverse patient outcomes
- Poor staff moral
- Prolonged LOS
- Staff injuries
- Legal concerns
- Difficulty recruiting staff
- Poor staff retention
- Lost productivity
- Etc., etc., etc...

Agitation in the medical setting
Solutions:
An incomplete list…
Continuum of Care

Behavioral health integration into general medical settings

- Reactive Psychiatric Consult Service
- Behavioral Emergency Response Team
- Behavioral Intervention Team
- Complexity Intervention Unit
The Continuum of Care (and Service)

Reactive Psychiatric Consult Service

• Primary service consults psychiatry only once a consult issue is identified that requires acute management
The Continuum of Care (and Service)

Reactive Psychiatric Consult Service

- Primary service consults psychiatry only once a consult issue is identified that requires acute management
- Limitations with this model…
  - Reactive and often crisis-orientated involvement
  - Limited referral rates, when more patients could benefit
  - Referral of patients in little need of psychiatric consultation
  - Assessments performed late in hospitalization
  - Interventions are often directed to clinicians (Physicians and AAPs)
Reactive Psychiatric Consult Service
Not all its cracked up to be..

Inpatient Services Faculty, APPs and House Staff\(^1\) Satisfaction with Consulting Services\(^2\)
(n=214)

15 consulting services with the highest volume of consultations

\(^1\) Includes Internal Medicine, Cardiology, Neurology, Oncology, Surgery and Orthopedics
\(^2\) Excludes Self Service Ratings
The Continuum of Care (and service)

Reactive Psychiatric Consult Service

Behavioral Emergency Response Team (BERT)

• A multidisciplinary team responds to ANY care providers concern about patient or staff safety
BERT: The Approach

The Team
- Rapid response nurse
- Charge nurse
- Security officer
- Primary team and/or admitting medical officer (after hours)

The Method
- Additional training
- Use of treatment algorithm
- Development of care plan
- Team debrief
BERT: Nursing Satisfaction Survey Results

- **BERT provides the clinical support I need to manage a patient’s behavioral emergency**: 96% in May-17 vs. 100% in May-18
- **By observing BERT my skills at de-escalating are improving**: 88% in May-17 vs. 98% in May-18
- **I would utilize BERT again and recommend it to my coworkers**: 94% in May-17 vs. 100% in May-18

*Image Source: Froedtert & Medical College of Wisconsin*
## BERT: Results

### BERT calls from 5/1/2017 – 10/31/2018

<table>
<thead>
<tr>
<th>Facts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of calls</td>
<td>1091</td>
</tr>
<tr>
<td>% of physical altercation</td>
<td>22%</td>
</tr>
<tr>
<td>% of repeat calls</td>
<td>38%</td>
</tr>
<tr>
<td>% of calls off hours (1700-0700)</td>
<td>49%</td>
</tr>
</tbody>
</table>

### Interventions (other than verbal de-escalation)

<table>
<thead>
<tr>
<th>Interventions</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Physical restraints initiated</td>
<td>18%</td>
</tr>
<tr>
<td>Medications administered</td>
<td></td>
</tr>
<tr>
<td>• Benzodiazepines</td>
<td>15%</td>
</tr>
<tr>
<td>• Antipsychotics</td>
<td>25%</td>
</tr>
<tr>
<td>• 1:1 sitter</td>
<td>40%</td>
</tr>
</tbody>
</table>
BERT: Results

Pittsburgh Agitation Scale: 0-16

- Pre-BERT PAS Score: 7.65
- Post-BERT PAS Score: 2.48
The Continuum of Care (and Service)

Reactive Psychiatric Consult Service

Behavioral Emergency Response Team (BERT)

- A multidisciplinary team responds to ANY care providers concern about patient or staff safety
- Limitations of this model
  - Reactive and often crisis-orientated involvement
  - Limited referral rates, when more patients and staff could benefit
  - Scope of interventions often limited by responders’ scope of practice, knowledge-base, or comfort levels
  - Limited availability of 24/7 behavioral health coverage
The Continuum of Care (and Service)

Reactive Psychiatric Consult Service

Behavioral Emergency Response Team

Behavioral Intervention Team (BIT)/Proactive Consult Service

- A BH provider meets with primary team daily to review all admissions
  - Proactively identify BH issues
  - Initiate full psychiatry consult, if appropriate
  - Continue to work with team to ensure recommendations are followed and adjusted as needed
Proactive Inpatient Consultation

The Landmark Study

Multidisciplinary Proactive Psychiatric Consultation Service: Impact on Length of Stay for Medical Inpatients

William H. Sledge, Ralitza Gueorguieva, Paul Desan, Janis E. Bozzo, Julianne Dorset, Hochang Benjamin Lee

Department of Psychiatry, Yale School of Medicine, Yale New Haven Psychiatric Hospital, and Department of Biostatistics, Yale School of Public Health, New Haven, Conn., USA

Proactive Inpatient Consultation

The Process

- Psychiatric provider assigned to the primary medical team
  - Rounds with team daily
- Referral sources for consultation
  - Medical staff
  - Medical record

Proactive Inpatient Consultation

The Process

Review of Medical Record

- Suicide attempt
- Transfer from inpatient psychiatry
- Violence towards staff
- Diagnosis: Schizophrenia

- Recent BIT involvement
- Diagnosis: Dementia with behavioral disturbance & bipolar disorder

- None

Proactive Inpatient Consultation

The Process

- Suicide attempt
- Transfer from inpatient psychiatry
- Violence towards staff
- Diagnosis: Schizophrenia

- Recent BIT involvement
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- None

Refer to BIT

Proactive Inpatient Consultation
The Process

Review of Medical Record

- Suicide attempt
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- Violence towards staff
- Diagnosis: Schizophrenia

Refer to BIT

- Recent BIT involvement
- Diagnosis: Dementia with behavioral disturbance & bipolar disorder

No action by BIT

- None

Proactive Inpatient Consultation

The Process

- Suicide attempt
- Transfer from inpatient psychiatry
- Violence towards staff
- Diagnosis: Schizophrenia

- Recent BIT involvement
- Diagnosis: Dementia with behavioral disturbance & bipolar disorder

- None

No action by BIT

Proactive Inpatient Consultation: Results

<table>
<thead>
<tr>
<th>Patients with psychiatric intervention</th>
<th>Population</th>
<th>Conventional Consultation</th>
<th>Behavioral Intervention Team</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOS &lt;31 days</td>
<td>535 patients</td>
<td>Mean LOS: 7.29d (SD +/-5.76)</td>
<td>Mean LOS: 6.65d (SD +/-5.75d)</td>
<td>0.004</td>
</tr>
<tr>
<td>Regardless of LOS</td>
<td>568 patients</td>
<td>Mean LOS: 10.29d (SD +/-14.87d)</td>
<td>Mean LOS: 10.09d (SD +/-16.30d)</td>
<td>0.05</td>
</tr>
</tbody>
</table>

F&MCW Pilot

- A consultation-liaison psychiatry fellow met with 2 medical teams 3 times per week
  - Duration of pilot was two weeks
- The psychiatry fellow was available during those times to
  - Answer any BH-related questions
  - Provide insight and advice
  - Perform formal consultations if necessary
- Now in second iteration
## Process Data of Huddles (n=12)

<table>
<thead>
<tr>
<th>Average duration of huddle (minutes)</th>
<th># of informal consults</th>
<th># of formal consults</th>
<th># of huddles with medications discussed</th>
<th># of huddles with non-medication management advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10</td>
<td>13</td>
<td>0</td>
<td>7/12</td>
<td>8/12</td>
</tr>
</tbody>
</table>
Proactive Consult Service

F&MCW Pilot Results

Pre- and Post-Pilot Skills Survey

- On the whole, I am satisfied with the way I work with patients with MI
- I have the skills to work with patients with MI
- When working with patients with MI, I receive adequate support from colleagues
- If needed, I could identify someone to help formulate the best approach to treat a patient with MI

Strongly Agree

Strongly Disagree

Pre-Pilot  Post-Pilot
Proactive Consult Service

F&M CW Pilot Results

Post-Pilot Medical Team Satisfaction Survey

- Improved my confidence in caring for patients with MI
- Increased my knowledge in caring for patients with MI
- Psychiatry had practical and helpful suggestions
- Psychiatry quickly managed behavioral problems
- Psychiatry communicated effectively
- Psychiatry reduced LOS
- Overall, satisfied with psychiatry's helpfulness in managing the care of my patients
The Continuum of Care (and Service)

Reactive Psychiatric Consult Service

Behavioral Emergency Response Team

Behavioral Intervention Team (BIT)/Proactive Consult Service

- A BH provider meets with primary team daily to review all admissions
  - Proactively identify BH issues
  - Initiate full psychiatry consult, if appropriate
  - Continue to work with team
- Limitations of this model
  - Geographic localization of teams may be suboptimal
  - Liaison time of consultant is non-revenue generating
  - Patients with significant BH needs still placed on general med/surg units
The Continuum of Care (and Service)

- Reactive Psychiatric Consult Service
- Behavioral Emergency Response Team
- Behavioral Intervention Team (BIT)/Proactive Consult Service
- Complexity Intervention Unit

- Medical unit designed and staffed to treat patients experiencing BOTH acute medical and psychiatric illness
References


Thank You!

Questions or concerns…
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Medical College of Wisconsin
theinric@mcw.edu
Psychiatric Nursing Consultation Service: Not Pixie Dust But Still Magical

Lisa Davis BSN, MEd, RN-BC
Nurse Manager Psychiatric Nursing Consultation Service, VCU Health System
VCU Health

- 779 Bed Urban Academic Medical Center
- Level 1 Trauma Center
- Located in Richmond, Virginia
- Founded in 1838
- 3 Time Designated Magnet Facility
- 11,000 Employees (2900+ Nurses)
- 2 Adult and One Child/Adolescent Inpatient Psychiatric Units
- Well established and trusted Psychiatric C&L Team
What is it?

Psychiatric Nursing Consultation Team

**Psychiatric nursing expertise comes to YOU!**

Our mission is to support the bedside nurse 24/7 in caring for adult and pediatric patients, outside of the psychiatric environment, who have a psychiatric illness or a behavior issue.

**BERRT:**
- Behavioral Emergency RRT
- *500*
- AND
- 828-1234 VCUPD

**NON-EMERGENCY support needed:**
- 663-0932
- Adult Psych Nursing CC

Proactive rounding daily on all units caring for Patients on suicide precautions

- Nursing Consult to assist with care planning for the psychiatric needs of patients.
- Nursing Education Sessions
- Unit Debriefings

Lisa Davis,
Psychiatric Inpatient Nurse Manager

VCUHealth
• 24/7 Service
• Accessed by *500 like other emergency teams
• First Responders are Psychiatric Nurse and Security
• Collaboration with primary team and consult Psychiatry as needed and per primary team request
• First goal: Re-establish safety in the environment
• Second goal: Determine and implement immediate care plan
• Third goal: Alter treatment plan to prevent future assaults.
BERRT Call volume, Suicide precautions rounds, Close observation orders discontinued, Nursing Consults, and Cost Savings
FY17 vs FY18

Drill Down: BERRT Call Volume by Unit

Drill Down: BERRT Call Volume by Division
*Six months before implementation.
Other Outcomes

- Cost savings from FT 2017 and 2018 due to discontinuation of 1:1’s: $60,480
- High nursing satisfaction, both bedside and leadership
- Potential Workman’s Comp savings due to reduced assaults
- Potential reduction of nursing turnover due to reduced assaults
FY 2019 Goals

• Identify clinical causes leading to BERRT calls with goal of a Psychiatric Early Warning System via EMR
• Compare Workman’s Comp claims due to assault with use of BERRT
• Continued focus on VCUHS culture: Being assaulted is NOT part of your job and VIOLENCE is a SYMPTOM
Contact Information

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THANK YOU!