Reducing the Risk and Infection Outbreaks from Drug Diversion

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Learning Objectives

Following completion of this activity, participants will be able to:

1. Recognize the impact of diversion in healthcare and its role in risk of medication use.

2. Discuss interventions designed to detect, investigate and prevent diversion in a variety of settings.

3. Explain the relationship between medication diversion and possible infection outbreaks.
Risk Management Implications of Drug Diversion

Katherine Du Fresne, RN, MSN, CPHRM

Consider for a moment...
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What we know:

- In 2019, 20.4 million people aged 12 or older had a SUD.
- 10 to 15% of healthcare providers struggle with substance use disorder.
- Drug diversion does occur within our healthcare systems.
- Diversion has implications for patient safety, health care worker safety, organizational management, individual and organizational reputation.

Key Substance Use and Mental Health Indicators in the United States: Results from the 2019 National Survey on Drug Use and Health (samhsa.gov)

Risk Management Focus: Prevention and Response

Operations  Clinical/Safety  Reputational Management

Legal/Regulatory  Human Considerations
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Operational Goals: Prevention/Detection

- **Prevention**
  - Risk Assessment
  - Physical Controls
  - Policies
  - Culture
  - Hiring Practices

- **Detection**
  - Surveillance
  - Audit
  - Warning signs/data sources

Operational Goals: Response

- Investigation
  - Consistency in approach
  - Documentation
  - Privacy
  - Disclosure
  - Infection Prevention
  - Organizational learning

- Follow up:
  - Individual (patients, diverter)
  - Team (those impacted)
  - Assess potential failures in prevention
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Clinical: Prevention

- Controlled substance stocking
- Controlled substance ordering
- Patient assessment
- Documentation requirements
- Waste procedures
- Identification of experts

Clinical: Response

Known impacted patients
- Clinical management
- Disclosure
- Patient safety

Unknown impacted patients
- Investigation
- IP/Quality outcomes
- Disclosure?
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Human Considerations: Prevention

- Education
- Address Stigma
- Wellness
- Culture

Human Considerations: Response

- Organizational Values
  - Just Culture
  - Patient Safety
  - Psychological Safety
- Confidentiality
  - Human Resources
  - Treatment/healing
  - Reintegration
- Team Impacts
  - Respect for colleagues
  - Treatment/healing
  - Culture/Trust
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Legal/Regulatory
Prevention and Response:
- Contracts
- Policies/By-Laws
- Federal/State/Local law
- Licensure reporting
- Insurance/med-mal
- RCS/compliance
- Law enforcement/Regulatory Agencies

Reputational Management Response
- Strategize in advance
- Partnerships: Leaders, Public Relations, Risk/Legal
- Confidentiality vs. public awareness
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Conclusion

References:


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Drug Diversion and Infection Prevention & Control

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Manager Infection Prevention and Control - ECRI

*Drug diversion occurs when prescription medicines are obtained or used illegally by healthcare providers. For more information, visit CDC.gov/infectioussafety/drugdiversion
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Drug Diversion Outbreaks Acute Care

1985: 3 cases of Pseudomonas aeruginosa bacteremia associated with a pharmacy technician at a Wisconsin hospital
1992: 49 cases of HCV infection associated with a surgical technician at a Texas ambulatory surgery center
1993: 28 cases of Staphylococcus epidermidis bacteremia associated with a respiratory therapist at a Pennsylvania hospital
1994: 2 cases of HCV infection associated with a nurse at a Indiana hospital
2004: 30 cases of Bacillus anthracis bacteremia associated with a nurse in a Wisconsin hospital
2006: 3 cases of Acinetobacter rhinoscleromatis bacteremia associated with a nurse at an Illinois hospital
2008: 5 cases of HCV infection associated with a radiology technician at a Texas hospital
2009: 18 cases of HCV infection associated with a surgical technician at a Colorado hospital
2011: 25 cases of gram-negative bacteremia associated with a nurse at a Minnesota hospital
2012: 45 cases of HCV infection associated with a radiology technician at hospitals in New Hampshire, Kansas, and Maryland


Drug Diversion Outbreaks Acute Care

<table>
<thead>
<tr>
<th>Year</th>
<th>Cases</th>
<th>Outbreak</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>12</td>
<td>HCV infections associated with an emergency department nurse at a hospital in Washington [Footnote 1]</td>
</tr>
<tr>
<td>2018</td>
<td>6</td>
<td>Sphingomonas paucimobilis bacteremia associated with a nurse at a cancer center in New York [Footnote 2]</td>
</tr>
<tr>
<td>2015</td>
<td>7</td>
<td>HCV infections associated with a nurse at a Utah hospital [Footnote 3]</td>
</tr>
<tr>
<td>2014</td>
<td>5</td>
<td>Serratia marcescens bacteremia associated with a nurse in a post-anesthesia care unit at a hospital in Wisconsin [Footnote 4]</td>
</tr>
</tbody>
</table>

https://www.cdc.gov/injectionsafety/drugdiversion/index.html

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David Kwiatkowski – Healthcare Worker Diversion

1. Syringe stolen from operating room (preloaded and unattended)
2. Healthcare worker went to bathroom stall to inject
3. Mislabeled syringe (succinylcholine labeled as fentanyl)
4. Injected half the dose before paralysis set in – stopped injecting as he felt the effects
5. Removed syringe and threw into toilet – then collapsed out of the stall
6. Another worker witnessed the syringe in the toilet - fentanyl label still attached
7. Someone called the police, the hospital refused to cooperate
   • There had been an audit two months earlier that revealed a nurse had been diverting
   • The situation had not been addressed or remedied

The Aftermath

— Kwiatkowski returned to his hotel
  • An agency had a listing for a job in Philadelphia
    • He filled out the online application and hit the sack
    • He received a call the next day and accepted the job

— This was in fact his MO, lose a job related to addiction and diversion, leave and show up at another hospital.
  • Being a traveler enabled his lifestyle
  • Liability concerns from facilities kept him from being caught or turned into a licensure issue
The Patient Safety Impact

— Kwiatkowski had been positive for the hepatitis C virus for quite some time

— By traveling state to state he potentially exposed thousands to his blood, as some of the syringes and vials he diverted were used on patients

— The CDC recommended at least 12,000 people be tested due to possible exposure related to Kwiatkowski’s diversions
  — It is known that at least 45 people contracted hepatitis C
  — 1 patient died

— Kwiatkowski is currently serving out year 8 of his maximum 39-year sentence


Diversion From Family or Friends

— According to the 2018 National Survey on Drug Use and Health, nearly 10 million people either diverted or misused opioids within a 12-month period.
  — Of these individuals, more than nine million misused prescription pain relievers with approximately 51.3% of people reporting that the most recently used pain reliever was obtained from a family member or a friend.

Home Care & Hospice

Table 1: Average Lifetime Length of Stay

<table>
<thead>
<tr>
<th>Year</th>
<th>Patients</th>
<th>Total Days</th>
<th>Avg. Days of Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>1.32M</td>
<td>91.9M</td>
<td>88.2</td>
</tr>
<tr>
<td>2015</td>
<td>1.36M</td>
<td>95.9M</td>
<td>86.7</td>
</tr>
<tr>
<td>2016</td>
<td>1.43M</td>
<td>101.2M</td>
<td>87.0</td>
</tr>
<tr>
<td>2017</td>
<td>1.49M</td>
<td>106.3M</td>
<td>88.1</td>
</tr>
<tr>
<td>2018</td>
<td>1.55M</td>
<td>113.5M</td>
<td>89.6</td>
</tr>
</tbody>
</table>

Source: MedPAC March Report to Congress, Various years

“Nearly a third of hospices experience at least one case of confirmed medication diversion per quarter” [out of 112 surveyed]


Today, we try to prevent falls and pressure ulcers in the hospital. Tomorrow, we will try to prevent falls and pressure ulcers at the patient’s home.

Examples of Diversion Techniques

- Tampering
  - Drips
  - Prefilled syringes - waste
  - Vials
  - Refilling and restocking

The Chain of Infection

1. Susceptible Host
2. Infectious Agent/Causative Agent
3. Reservoir
4. Mode of Transmission
5. Portal of Exit
6. Portal of Entry
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Break The Chain

- Assess for facility/organization awareness
  - Surveillance
    - Pharmacy data
    - Human Resources
    - Quality audits
    - Other staff
    - Clinical data/oddities

Start a Formal Program Targeting Prevention

ASHP Guidelines on Preventing Diversion of Controlled Substances

https://www.ashp.org/-/media/assets/policy-guidelines/docs/guidelines/preventing-diversion-of-controlled-substances.ashx
Questions?

This activity is supported by Fresenius Kabi.