SAFELY TREATING PATIENTS WHO INJECT DRUGS IN TH ACUTE CARE SETTING

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ABSTRACT

BACKGROUND
The opioid crisis in the United States has created significant challenges for healthcare providers in acute care settings. Patients who inject drugs (PWID) often require intravenous (IV) access for medical treatment but are at risk of self-injecting non-prescribed or illicit substances into their vascular access devices (SIVAD). This behavior, often under-reported, leads to severe complications, including infections, prolonged hospital stays, suboptimal management of illnesses, overdose, and death.

OBJECTIVE
This project aimed to quantify the risks associated with SIVAD and providers' experiences with SIVAD while receiving medical care. It assessed identified gaps in practices in preventing SIVAD and developed solutions to better manage PWID safely in the acute care setting without compromising parental care.

METHODS
A multidisciplinary team conducted a gap analysis of existing deterrent methods and developed a comprehensive protocol in the ED to reduce the risk of SIVAD. This included identifying patients at risk, quantifying the prevalence, and implementing a protocol that allows for optimal parental treatment of PWID.

RESULTS
A protocol and medical device were developed to prevent patients from accessing their IV sites, reducing the risk of overdose, infection, and other complications. The initiative also included staff education on the stigma and discrimination faced by patients with substance use disorders.

CONCLUSIONS
The development of a medical device to prevent patients from accessing their own IVs represents a significant advancement in the care of patients at risk for SIVAD. Education on effective prevention measures can help reduce stigma for patients and the cognitive burden for hospital staff.

BACKGROUND

- Opioid epidemic increases hospitalizations of patients who inject drugs (PWID).
- Depression and Suicidal patients at risk for SIVAD
- Two fatal self injections of non-prescribed substances into vascular access device (SIVAD) overdoses in 2019 prompted intervention.
- Patients get suboptimal care due to risks associated with SIVAD
- Increase cost associated with infections
- Poor reporting and open discussion on prevalence and management for SIVAD

PROTOCOL DEVELOPMENT

- Gap Analysis: Reviewed protective measures and identified high-risk populations.
- Device Development: Created IV CareLock™ with hospital engineering.
- Ability to have both intermittent and continuous infusions including piggy backs.
- Pilot study to determine safety, efficiency and functionality of IV protective device
- Protocol Implementation: Trained staff and integrated device into ED workflow.
- Successful pilot program within the Mayo Clinic ED: nurses found device useable, safe and meeting the objectives.
- Device allowed intermittent access, infusions, multiuse on same patient, MRI safe.
- Individual hospital key sets universal lock keeps system safe from compromise
- Improved provider confidence and reduced supervision needs.
- Ability to safely give parental therapy to patients at risk for SIVAD

Device / Method	No Device, Current standard	Neuma Clamp	Tamper Evident Lock	Direct 1:1 Supervision	Video Monitoring	Care Lock™
Device Cost	✓	✓	✓	✗	✗	✓
Ease of Use / Staff Adoption	✓	✓	✓	✗	✗	✓
Protection Level	✗	✗	✗	✓	✓	✓
Secure and Reuse	✗	✗	✗	✓	✓	✓
Useable with Multiple Port Setups	✓	✓	✓	✓	✓	✓

TABLE 1: Gap analysis prior to study



FIGURE 2: IV CareLock™

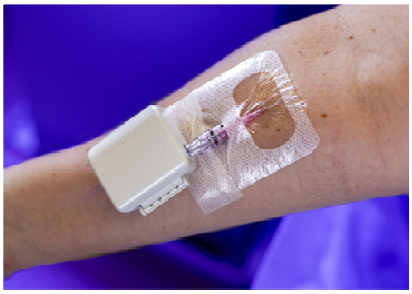


FIGURE 3: IV CareLock™

DISCUSSIO

- Balances safety with compass
- Reduces stigma and improves PWID
- Need for ongoing education of and provider staff
- Identifying cognitive bias and s associated with caring for PWID
- Opportunities to improve outcc high-risk populations including F mental health diagnosis
- Potential for broader use in ou correctional settings
- Opportunities to promote non p reporting for SIVAD
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