**Introduction**

Illicit intravenous drug use in persons who inject drugs (PWID) often leads to medical complications and deep tissue infections. These infections include endocarditis, pneumonia, osteomyelitis, deep muscle infections, and paraspinous infections. Treatment for these infections can require up to 6 weeks of daily antibiotics, often administered several times per day. To facilitate treatment, health care providers often insert peripherally inserted central catheters (PICC) lines, other varieties of central lines or mid-line catheters.

Unfortunately, PWID are often prone to tamper with their PICC or Central Lines to inject illicit drugs. Doing so can lead to significant complications such as drug overdose, line infection, line thrombosis, and embolism. These complications endanger the patient and put the treating providers and institution at risk for complications, dramatically increased costs and potentially lawsuits.

The Neuma Innovations PICC and Central Line Protection Clamp (the Clamp) is designed to deter patients from tampering with their lines and to detect when patients do so. The Clamp is a single use device that clamps off the central line, thus deterring tampering. Once opened, it cannot be closed again, thus serving to detect the tampering.

**Key Points & Cautions**

1. The Clamp does NOT require consent from the patient. Consent is implied when it is obtained for insertion of the PICC or other central lines, just like the sterile dressing or line filters or even the clamps currently on the line are also part of the central line and do not require individual consents from the patient.
2. If the patient tampers with the line, you do have the option to pull the central line if tampering constitutes a danger to the patient.
3. The Clamp ultimately works best in an empathetic environment that considers the humanity of the patient as well as Medication-Assisted Therapy, Infectious Disease Consultation and a Treatment Agreement with the patient.
4. Ensure that all lumens are in the cradle of the Clamp.
5. Do not reuse.
6. Do not use on Quinton catheters.

**Definitions**

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| Care Provider | The licensed practitioner including physicians or advanced practice nurse practitioner who has primary responsibility for the care of the patient. |
| Central Line | A medical device that provides intravenous access to the central circulation. |
| CLABSI | Central Line Associated Blood Stream Infectious. Infection associated with bacteremia that originates from a central line. |
| Clamp | A single use, disposable device that snaps shut over the external lumens of a PICC, central line, midline catheter or selected peripheral intravenous lines. |
| ID Consultation | Infectious Disease consultation, shown to increase quality and safety and to decrease length of stay for many patients with blood stream infections. |
| IVDU | Intravenous Drug Use |
| Medication-Assisted Treatment | The use of approved medications to manage opiate withdrawal and to try to prevent relapse of narcotic abuse. Medications include methadone, buprenorphine, Suboxone and naltrexone. These must generally be prescribed by specially trained or licensed care providers. |
| Midline Catheter | A peripheral catheter longer than a conventional peripheral intravenous catheter, but which does not reach centrally and is intended for longer dwell time in the vein. |
| OPAT Clinic | Outpatient Antibiotic Treatment Clinic. An outpatient site visited by patients on a routine basis for antibiotic infusions and oversight of the patient’s condition. |
| PICC | Peripherally Inserted Central-line Catheter. A central line inserted through a peripheral access. |
| PWID | Person Who Injects Drugs. A person who injects illicit drugs such as narcotics. |
| Treatment Agreement | A document that provides information about the care provided and educates the patient about the reason for the use of the Central Line Protection Clamp and the possible consequences of tampering with the Central Line. |
| Vascular Access Specialist | The vascular access specialist is expert in the insertion of PICC or other central lines. The Vascular Access Specialist is also an expert in the maintenance of central lines and the appropriate selection of devices and accommodations to insure the continued safety and quality of the line and the patient. |

**Policies**

1. All patients with PICC lines or other types of central lines should be considered for application of the PICC and Central Line Protection Clamp.
2. Patients can be selected because of a known history of IVDU or by a screening tool or protocol used to generate a risk profile.
3. The Clamp is a component of the Central Line profile. It does not require a separate consent.
4. The Clamp will be applied by the vascular access specialist at the time of Central Line insertion or by the nurse responsible for the management and maintenance of the Central Line.
5. After the initial insertion of the line by the Vascular Access Specialist, the Clamp will be applied on a patient after an order from the Care Provider.
6. Patients with the Clamp in place will not leave the immediate care area.
7. Patients with the Clamp in place will be monitored under the direction of their primary RN.
8. The Clamp will be removed prior to each infusion and replaced immediately after the conclusion of the infusion. Do not attempt to reuse the Clamp.
9. The Clamp will be placed in accordance with the Instructions for Use Appended to this document.
10. Ensure that the Clamp does not interfere with the sterile dressing and can be removing without affecting the dressing.
11. Prior to use, the responsible RN will review the inservice training available at <https://www.neumainnovations.com>
12. If the patient removes the Clamp, the RN will put another Clamp in place and notify the Care Provider immediately.
13. The Care Provider and the care team will decide the consequences for tampering with the Clamp or the Central Line.
14. The Clamp can be applied to all external lumens of a Central Line or to each external lumen separately.
15. The Clamp is not sterile and should not be applied under sterile dressings.
16. If the patient tampers with the Clamp or the Central Line, the RN will record the event in a nursing note, and the Care Provider will record the event in daily or interim note. Doing so will protect the institution from a CLABSI event if the Central Line becomes infected and leads to a blood stream infection.
17. The fact that the Clamp is in place will be recorded at least once daily in the nursing notes and the Care Provider of Physician notes.
18. The Care Team led by the primary physician or other care provider will address the consequences of tampering with the device with the patient at the time the Clamp is applied and subsequently when tampering occurs.
19. The Care Team has the authorization respond to tampering with all remedies including drug testing, the placing of a sitter or the removal of the PICC or other central line. In making these decisions, the Care Team may involve the ethics committee or the Chief of Staff or Chief Medical Officer.
20. The Care Provider may consider a consultation with the Infectious Disease Service to determine whether a shorter course of antibiotics or an alternative route of treatment would be appropriate and would decrease risk for the patient.
21. The Care Provider may determine that the patient is appropriate for OPAT treatment and should encourage the OPAT providers to consider us of the Clamp.
22. The Care Provider should consider the use of MAT to reduce the risk of line tampering in conjunction with the Clamp.

**Documentation Requirements**

1. Documentation of the placement of the Clamp will occur with each application by the individual placing the Clamp.
2. Document of tampering with the device will be placed in the medical record by the primary nurse. Documentation will include a statement that the primary Care Provider has been notified.
3. The Care Provider will note in the medical record that tampering has occurred and that the device was removed by the patient or another unauthorized person.
4. The primary nurse will record when the patient left the floor without authorization.

AUTHORIZING SIGNATURES appropriate to the institution’s policies and procedures.