"CENTRAL LINE ACCESS MONOMETER"

VCU #12-66

Applications

- Vein placement verification during Seldinger central line placement

Advantages

- Integrated design for seamless placement confirmation
- Reduced dislodgement

Inventors

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Market Need

Central Venous Catheters, or central lines, are used to deliver drugs or fluids directly into a large vein near the heart. In order to determine if the placement was successful, clinicians can perform a falling column test. During this test, clinicians will attach a tube to a needle while is it in place and allow the tube to partially fill with blood while holding it below a patient's heart. The clinician will then raise the tube above the patient's heart and observe the direction of fluid flow. If the fluid column falls, correct venous placement has been achieved and the line can be placed. Problems associated with this method arise when the syringe used for placement is detached and replaced with the tubing for verification. This movement often causes the needle to slip and become dislodged. Researchers at VCU have proposed a solution to this problem.

Technology Summary

The invention is a manifold that connects the syringe and the needle in a central line kit. The manifold allows to the falling column test to be performed during Seldinger central line placement without detaching the syringe and, thus, decreasing the movement of the needle within the vessel.

Technology Status

This invention is in conceptual stages.
Patent Pending: U.S. and Foreign rights are available
This technology is available for licensing to industry for further development and commercialization.