

Multicompartment interventional wire and catheter storage basin

Value Proposition

Catheters are hollow tube-like medical devices that can be inserted into blood vessels, ducts or body cavities. Catheters are ubiquitously used for the drainage of fluids, the infusion of fluids or the insertion of surgical or diagnostic instruments into a body cavity. Its wide applications make catheters essential devices in cardiology, interventional radiology, neuroradiology, urology, and neurosurgery. Since the initial use of catheter directed therapeutics, more complex techniques requiring advanced and expensive catheters has been developed. In addition, multiple catheters and microcatheters will be needed for sophisticated interventions. These lengthy catheters are often difficult to store and control during the procedure. The current storage technique uses a single sterile plastic basin containing saline fluid to store all the catheters used during the medical procedure. However, such storage system does not support rapid storage and retrieval of the individual desired device. Moreover, a single unintentionally dropped or contaminated catheter can cause a financial lose in the order of hundreds of dollars.

Technology

To allow repaid storage and retrieval of the desired device during procedures, Dr. Lessne invented a multi-compartment interventional wire and catheter storage systems. This invention contains multiple passages with decreasing caliber nested one inside the other. Each passage contains a guiding tube which can lead wires and catheters to the outside of the storage basin. Wall grooves are placed in each passage to direct wires and catheters to be easily coiled in a clockwise direction. Plastic lips are placed atop each individual passage to prevent the upward migration of the wire during coiling and storage. Storage solution and a lid sized for the storage basin can be used to ensure further security of sorted wires. During storage, catheters will be slide into one of the vacant guiding tubes until the wire is coiled within the individual bowl compartment and only the wire tip will remain outside of the guiding tube. When needed, user can distinguish the individually desired catheter or wire by the tip displayed in the guiding tube and retrieve directly by pulling from the storage basin.

Advantages

- The first system that allows rapid retrieval and storage of wires and catheters
- Working prototypes exists
- Easy to use

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- Easy and low cost to manufacture
- Can prevent unintentionally contaminating catheters

Patents

Patent Number: 9,427,287

Title: MULTI-COMPARTMENT INTERVENTIONAL WIRE
AND CATHETER STORAGE SYSTEMS

Country: United States of America