Bi-lateral catheter system and methods for use

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Technology description

Pulmonary Hypertension Infusion System
Background
Pulmonary artery hypertension affects the arteries in the lungs and the right side of the heart. Symptoms include chest pressure, chronic cough, shortness of breath or fatigue which can worsen over time and although treatable with oxygen therapy and medication, after a while, pulmonary arterial hypertension can weaken the muscles of the heart.

Technology overview
This technology allows a single venous access site into the pulmonary tree. The housing can be advanced either over the wire or with the assistance of a sail balloon. The innovation also has a side port for easy selection of the contralateral pulmonary artery. Once in place, the system has a built-in pressure monitoring system. It can be worn with a well of medication for pulmonary hypertension. When the sensor shows PA pressure increasing, it will infuse the medication directly into the pulmonary tree. When the pulmonary pressure returns to normal, the pump will cease delivering medication.

Application area

• Congestive heart failure
• Pulmonary hypertension

Advantages

• Enables intra-arterial pressure monitoring, improving surveillance and notification between the monitoring nurse and physician when pulmonary hypertension symptoms occur.
• Pulmonary artery pressure monitoring and potential management of pulmonary hypertension and congestive heart failure can be provided remotely with automated control.
• Localized delivery of pulmonary hypertension drugs minimizing systemic exposure.

Institution

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