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TEGO® Connectors Reduce Heparin Use without Affecting Blood Flow Rate Compared to Traditional Central Venous Catheter Locks

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Introduction: The TEGO® Connector is a heparin-free device developed to reduce catheter-related infections and clots associated with central venous catheters (CVCs). We compared the efficacy and cost of TEGO Connectors and saline CVC locks to traditional heparin CVC locks, and compared both to the costs of using rt-PA.

Methods: We conducted a pre/post study comparing conversion from traditional CVC locks to TEGO Connectors in hemodialysis patients (pts). The pre-period was defined as 90 days before, and the post-period 90 days after TEGO Connector conversion. Outcomes included monthly blood flow and heparin use (efficacy); and cost of heparin, connectors, syringes, activase, sodium citrate, medication and equipment (cost analysis). Both CVC locks and TEGO Connector costs were compared to the cost of using rt-PA, as of July 2010.

Results: Blood flow was unchanged over the course of the evaluation period (Table). Total heparin use decreased nearly 2000 units 3 months after TEGO conversion. The mean 6-month cost was \$16.38 lower for TEGO Connectors/CVC pt compared to traditional locks + caps + heparin + syringes/CVC pt. The rt-PA cost/pt was \$1706 higher than CVC locks.

Blood Flow Rate and Heparin Use (before and after conversion to TEGO Connectors)

Variable	Days Prior to Conversion			Days After Conversion		
	90-61	60-31	30-01	01 - 30	31 - 60	61 - 90
# Facilities	225	230	234	234	233	232
# Patients	2,040	2,302	2,656	2,656	2,447	2,256
Blood Flow Rate (mL/min) Mean ± SD	348.3 ± 41.5	348.2 ± 42.6	346.7 ± 40.3	345.5 ± 40.7	343.1 ± 41.4	341.4 ± 41.1
Total Heparin Units / Treatment	6,177	6,782	7,798	6,691	4,931	4,240

Note: observed periods pivot around date dialysis facility switched to TEGO Connectors.

Conclusions: Use of TEGO Connectors decreased heparin use without affecting blood flow rate at a lower monthly cost. Costs of both TEGO Connectors and CVC locks were significantly lower than use of rt-PA. TEGO Connectors are a viable and cost-effective alternative to traditional locks.

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