“Dan, the Man”; Renal Simulation and Knowledge Transformation

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Topic: The aim of this project is to explore renal simulation training as it relates to: (1) improving patient safety in a hemodialysis setting; (2) Use of additional renal simulation methodology for educating dialysis staff. End stage renal disease (ESRD) is a highly prevalent and rapidly increasing condition. The United States Renal Data Systems (USRDS) reports that as of December 31, 2010, the ESRD population includes 383,992 patients on hemodialysis and 29,733 on peritoneal dialysis, as well as 179,361 with a functioning kidney transplant; the total treated ESRD population thus rose to 593,086. Therefore, competency for dialysis staff is crucial and often challenging at times. With the introduction of renal simulation training to our dialysis unit, we can enhance the skills of our staff to provide the best quality of care for our veterans.

Approach: 20 dialysis staff members participated in a multimodal learning (i.e. lecture, demonstration, and return demonstration). The scenarios used with our simulators, were designed to mimic real life scenarios seen in our clinical area. A high fidelity simulator “Dan” was connected to a pre-adjusted dialysis machine. Our patient, “Dan” could speak, respond physiologically, and had input in his care. Staff was engaged in a 2-part competency process, described to them at the beginning of a scenario which included a pre-assessment and post assessment, they also participated in a debriefing upon completion of scenario and were requested to complete a Likert-scale survey.

Conclusion: The overall outcomes of this training is to demonstrate that simulation training can be an effective learning tool in preparing hemodialysis healthcare professionals for real life scenarios that occur in clinical practice. Use of simulation can help improve patient safety and knowledge, skills, and competencies in a hemodialysis care setting.

Relevance: Renal simulation technology added to competencies in the hemodialysis unit provides real life scenarios which can be effective learning tools for dialysis staff as well as improve patient safety in the hemodialysis care setting.

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