

## Utility of Problem-Based Learning to Teach Residents About Rapid Infusion Systems

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**Learner Audience:** The anesthesiology residents in our department in their clinical anesthesia years (CA-1 through CA-3) participated in the problem-based learning discussion (PBLD) on a rapid infusion system (RIS).

**Background:** Problem-based learning has been utilized in our department as an adjunct to the weekly didactic resident teaching conferences. These sessions previously were based on a case-presentation or clinical scenario and no previous sessions were focused on a piece of technology. A RIS is utilized at our institution for complex cases including neurosurgical cases, liver transplantation and trauma.

**Needs Assessment:** There is no formal training on the set-up, functioning, risks/benefits, or advantages/disadvantages of the RIS.

**Hypothesis:** A PBLD will improve resident knowledge on the equipment and usage of RIS

**Curriculum Design:** The curriculum for the PBLD included a pre-test, case presentation, slide presentation detailing the equipment, interactive session demonstrating the equipment, and post-test (which included the same questions as the pre-test).

**Outcome:** Using SPSS, a paired t-test was conducted on the pre-test and post-test results and the paired differences were found to be statistically significant ( $p=0.000$ ) suggesting that the PBLD on a RIS resulted in improved resident knowledge of the equipment and usage.