

## A Machine Practical

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**Learner Audience:** Residency Program Directors, Educators, Attendings

**Background:** The anesthesia machine remains a source of mystery to anesthesia residents, and represents a dry topic of study. Yet intimate knowledge of the machine, as well as the physics behind some of the components, is a vital area of knowledge for any anesthesiologist to be able to troubleshoot the more common machine problems.

**Needs Assessment:** Assess the ability of residents to properly perform a machine checkout on a variety of anesthesia machines, to identify areas of malfunction and to troubleshoot and correct the more common problems.

**Hypothesis:** Although the residents use the machine daily, their functional knowledge is limited.

**Curriculum Design:** A machine practical was designed wherein a series of anesthesia machines were "bugged" with problems. Small groups of residents were given four minutes to perform a machine check, identify the problem and attempt to correct it. The buzzer would sound after four minutes, and the group would rotate to a different station, where they repeated the process. There were a total of 8 stations. Each station was either "bugged" with an easily identifiable problem, which had occurred in the careers of many of the attendings, or had a machine question related to that particular model.

**Outcome:** After the practical, the residents all admitted to a greater understanding of the machine and delivery system concepts.