

TITLE: Traditional loss-of-resistance technique vs Compuflo-aided technology for placement of a thoracic epidural catheter: a randomized trial of the effect on the success rate

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Provide the rationale or power analysis to support the number of subjects proposed to complete this study.

Based on the previous studies, we expect the success rate with the TT to be 75%. We expect the success rate for the CT group to be 95% to be clinically meaningfully different from TT (95% success rate in CT vs 75% success rate in TT). To achieve 80% power, with a two-sided type I error rate of 0.05 with these success rates (75% vs 95%), we need 49 subjects per group; 98 patients total. We plan to enroll 120 patients having a conservative attrition rate of 20% given the fact that we are studying the use of a device in a training institution.