This project evolved from the recognition of the need to capture patients at risk for undiagnosed obstructive sleep apnea (OSA) to finding a mechanism for proactively intervening and providing support/rescue, once recognized. A data collection tool was created that followed the patient from the preoperative interview through the Phase I PACU. Included was an Obstructive Sleep Apnea screening tool and Phase I PACU Triage criteria. Adult patients (18 and older) were the target population.

High risk patients were captured through the preoperative screening process with an OSA screening tool, followed by patient triage in the Phase I PACU. New technology was trialed by the project nurse leader and there was immediate capture of patients with hypoventilation/apnea syndromes and instances of subacute opioid overdose. There was such a significant influence on perioperative patient safety that the physician project leader championed the capital purchase of four new stand-alone capnography monitors.

This project resulted in the creation of an End-Tidal CO2 Monitoring Protocol in the Phase I PACU and the integration of Sleep Apnea/Hypoventilation orders into the anesthesiology order set. Immediate impact was seen in the early recognition and rescue of perioperative patients and the long term results of screening, triage, and capture of high risk orthopedic patients was noted by a thirty percent decrease in the number of Early Response Team calls. Utilization of end-tidal CO2 monitoring with capnography presents the perianesthesia nurse with early information for supporting or rescuing patients at risk for airway or ventilatory compromise.