

### *Why are we performing this trial?*

- **To find out which is better: total intravenous anesthesia (TIVA) or inhaled volatile anesthesia (INVA)**
  - TIVA and INVA have been used safely and interchangeably for decades, but we don't know which leads to improved quality of recovery for surgical patients. To answer this foundational question, we have received \$30 million from PCORI.

### *What are the interventions?*

- **TIVA or INVA**
  - Patients will be randomized to receive one of these.

### *What are the outcomes?*

- **Quality of recovery on day 1 and intraoperative awareness**
  - Secondary outcomes include delirium, disability, respiratory failure, acute kidney injury, postoperative activity and sleep, and all-cause mortality. Intraoperative patient movement and delayed emergence will also be assessed.

### *How do the results of this trial impact you?*

- **You will find out which anesthetic technique improves your patients' recovery experiences.**
  - Findings will influence perioperative decision making and anesthetic management for millions of surgical patients.

### *Will a patient be able to see what anesthetic regimen they received if they can access their medical record?*

- **No.**
  - This information is not available in MyChart. Although patients' will be blinded to the regimen they receive, we will inform them what they received at the end of the study.

### *When will randomization occur?*

- **Day of surgery**
  - We understand it is important to ensure surgery starts on time, so our team will be prepared and ready to have this information available to you as soon as randomization occurs.

### *Will I be required to use EEG monitoring if my patient is in this trial?*

- We **highly recommend this for both TIVA and INVA arms of this study.**
  - The THRIVE team will deliver BIS monitors and strips to the room so monitoring is readily available to you. An EEG Tip sheet will also be in the room and we have provided several EEG videos, tips and resources here: <https://mpog.org/thrive-clinician-educational-resources/>.

### *Is TIVA contraindicated in obese patients?*

- **No**
  - TIVA can be administered safely and effectively with proper medication dosing and concurrent EEG monitoring.

### *Is propofol alone adequate to prevent patient movement?*

- **No**
  - Based on previous research we have conducted, unintended patient movement occurs in roughly 15% of patients who receive INVA. In comparison to an inhaled volatile agent, propofol alone is worse at preventing patient movement. It is important to ensure adequate analgesia is provided when administering TIVA with a concurrent opioid infusion (e.g. remifentanyl) or non-opioid infusion (e.g. dexmedetomidine). This should generally be in addition to the intended administration of longer

acting opioid and non-opioid analgesics. When indicated for optimal surgical conditions, neuromuscular blocking drugs may be administered according to clinician discretion.

*What if my patient is randomized to INVA and I want to use low-dose propofol as an adjunctive therapy to prevent PONV?*

- **Patients in the INVA arm may receive propofol for induction.**
  - Although we prefer patients in the inhaled volatile-based arm not receive propofol infusions, “low-dose infusions” ( $\leq 20$  mcg/kg/min) may be acceptable. We do ask that you consider alternative options before administering propofol infusions in this group.

*What if my patient asks me questions about THRIVE or provides feedback about their experience?*

- **Contact us**
  - We have several resources with additional details about the trial at <https://mpog.org/thrive-info/>. Your patient may email the THRIVE research group at [anest-THRIVestudy@email.wustl.edu](mailto:anest-THRIVestudy@email.wustl.edu) if they have any questions or feedback about the trial.