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**Practicum Site:** VUMC (Center for Biomedical Ethics & Society)

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## ***Ethical Perceptions of Semi-Autonomous Robot Assisted Surgery***

**Key words:** semi-autonomous, informed consent, decision-making

**Introduction:** The use of surgical robots in the operating room is consistently increasing with recent technological advancements potentially leading to surgical robots that can operate in a partially autonomous capacity. The Ethical Approaches to Informed Consent for Autonomous Robot Assisted Surgery study aims to understand the ethical implications of the use of semi-autonomous surgical robots and artificial intelligence in the operating room to aid in the development of ethical guidelines on informed consent for the use of semi-autonomous robots. The study and its aim enabled the understanding of the ethical complexities and nuances of implementing medical advancements and programs, which was the objective of this practicum.

**Methods:** This practicum, carried out at Vanderbilt University Medical Center, consisted of data collection and analysis for Aim 1 of the study consisted of in-depth qualitative interviews with surgical patients and surgical providers that were carried out to better understand perceptions of the decision-making factors and ethical dilemmas involving semi-autonomous robot assisted surgeries. The interviews covered various topics including perceptions of semi-autonomous surgical robots, decision-making, and informed consent.

**Results:** The qualitative data collected from Aim 1 of the study provided invaluable insight into surgical stakeholders' thoughts and perceptions of robot assisted surgery. The data used from the Aim 1 interviews also informed a manuscript that described the importance of addressing ethical implications of semi-autonomous robot assisted surgeries.

**Conclusions:** With technology constantly evolving, it is imperative that the ethical implications behind the use of these advancements be considered and that patients will be fully informed on the use of semi-autonomous surgical robots and other medical technology. This project will serve to inform surgeons and patients in these ethical considerations as well as the informed consent process for semi-autonomous robot assisted surgery.