Program Summary

During surgery, Intraoperative Neurophysiologic Monitoring (IONM) aims to reduce the risk of injury to anatomy of the nervous system, including the brain, spinal cord and peripheral nerves. Its use is indicated for surgeries where there is direct or indirect risk of injury to these neurologic structures. In addition, IONM can be used to help the surgeon identify anatomy, as well as to evaluate intraoperatively the placement and efficacy of implanted neuromodulation devices.

This presentation will give a history and overview of IONM, and focus on IONM as used during a selection of spine and brain procedures. It will also provide an understanding of the various modalities used, how anesthesia impacts IONM and how to best coordinate with the surgical team for optimal patient outcomes.

Learning Objectives for Nurses

At the end of this session, participants should be able to:

1. Describe the origins and applications of modern day Intraoperative Neuromonitoring.
2. Discuss types of surgeries during which Intraoperative Neurophysiologic Monitoring (IONM) is used, as well as the modalities that can be applied during various surgeries.
3. Identify the effect of patient comorbidities and anesthetics on IONM, and how to best integrate with the surgical team for optimal outcome achievement.