

# Pediatric Pathology & Laboratory Medicine

**Statement of the Problem** Results of the multicenter American College of Surgeons Oncology Group (ACOSOG) Z0011 trial published in 2011 showed that patients with early-stage breast cancer and limited sentinel lymph node (SLN) metastasis treated with breast conserving surgery and systemic therapy did not benefit from axillary lymph node dissection (ALND). The Z0011 trial was practice changing for the surgical management of breast cancer, and in turn, has proven to be equally impactful on the pathologic diagnosis of SLNBs. The purpose of this study is to demonstrate the impact of the Z0011 trial on intraoperative frozen section diagnosis of SLNBs.

**Methodology & Theoretical Orientation:** This is a retrospective study reviewing pathology reports from patients with primary breast cancer who met Z0011 trial clinical criteria and were initially treated with lumpectomy and SLNB from 2009 to 2015.

**Findings:** SLNBs sent for frozen section diagnosis ranged from 68% to 100% before Z0011 and declined to just 2% of cases after the Z0011 trial results were published in 2011. Of the post-Z0011 cases 19% had SLNs with metastasis and 97% of patients were spared ALND.

**Conclusion & Significance:** Following publication of the Z0011 trial results, intraoperative frozen section diagnosis of SLNs significantly decreased at our institution. Given that the vast majority of patients did not require second surgery for completion ALND, routine frozen section diagnosis of SLNB can be safely avoided in patients who meet Z0011 criteria, sparing patients the prolonged anesthesia time associated with waiting for intraoperative diagnosis.