OBJECTIVES: Mastectomy and lumpectomy procedures are often carried out using electrosurgical techniques. Previous studies have demonstrated that the use of ultrasonic energy may reduce blood loss, seroma formation, wound infection, flap necrosis, hematoma, prolonged axillary drainage and length of stay. In the Canadian healthcare environment hospitals are faced with increasingly restrictive budgets, creating a critical need to demonstrate the cost-effectiveness of new technologies. This study was conducted to determine whether the reduction in complications associated with the use of ultrasonic energy in mastectomy and lumpectomy procedures offsets the increased device costs in a Canadian hospital. METHODS: We examined the budget impact of replacing electrosurgical devices with ultrasonic devices in a hospital that performs 100 mastectomies and 100 lumpectomies annually. The model incorporates the costs associated with surgery, length of stay (taking into account facility and staff costs) and postoperative complications. Cost data was obtained from the Ontario Case Costing Initiative and case costing from a large Canadian hospital. Patient outcomes data was obtained from pooling published literature after completing a comprehensive literature review. A multivariate sensitivity analysis was conducted to ensure scientific rigour. RESULTS: The use of electrosurgery in mastectomy and lumpectomy procedures is associated with lower device costs when compared to the use of ultrasonic energy devices. However, mastectomies and lumpectomies completed with ultrasonically driven devices demonstrate reduced operating time, a reduction in length of stay and a reduction in post-operative complications which offsets the increased device costs. The model establishes that replacing electrosurgery with ultrasonic devices in a Canadian hospital performing 100 mastectomies and 100 lumpectomies annually would allow for a potential cost avoidance of $171,966. CONCLUSIONS: In a Canadian hospital, the use of ultrasonic energy in mastectomy and lumpectomy procedures provides a cost savings when compared to the use of electrosurgery.

PM21 ASSESSMENT OF THE ECONOMIC IMPACT OF THE ADOPTION OF A NEW MECANICAL FIXATION DEVICE ALONG WITH A NEW SKIRTED INTRA- PERITONEAL ONLAY MESH (IPOM) ON HOSPITAL COSTS OF OPEN VENTRAL HERNIA REPAIR SURGERIES

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OBJECTIVES: Demonstrating economic value of new products is important for hospitals adoption. The combination of two devices: ETHICON SECURESTRAP™ Open Absorbable Strap Fixation Device and ETHICON PHYSIOMESH™ Open Flexible Composite Mesh Device, offers a standardized approach to open IPOM repair of ventral hernia. This analysis assesses the potential economic value of using these devices (costs) agreed with other meshes and a hand-natured fixation approach. METHODS: An economic model was developed to evaluate the budget impact to hospitals adopting ETHICON SECURESTRAP™ Open Fixation Device with ETHICON PHYSIOMESH™ Open Flexible Composite Mesh. Results were analyzed using the Excel® based model. An increasing utilization rate for ETHICON SECURESTRAP™ Open (20%-60%) and ETHICON PHYSIOMESH™ Open (10%-30%) was assumed over 3-year horizon. Costs of the mechanical fixation device, suture materials, other materials, and staff costs related to the clinical performance of procedures completed with ultrasonic devices were collected. RESULTS: The model inputs include fixed assumptions of insulin waste and 10mL vial floor stock. Inpatient hospital perspective, respectively. Additionally, DCBs were predicted to be cost-saving in the majority of analyses vs. individual therapies (e.g., DCB procedures versus using blood-based cobas® EGFR Mutation Test as an alternative test for patients without a tissue sample. More patients received treatment directly with a potential $74,735 and $104,688 for inpatient and outpatient hospital perspectives, respectively. Additionally, DCBs were predicted to be cost-saving in the majority of analyses vs. individual therapies (e.g., DCB procedures versus using blood-based cobas® EGFR Mutation Test as an alternative test for patients without a tissue sample. More patients received treatment directly with a potential savings of $74,735 and $104,688 for inpatient and outpatient hospital perspectives, respectively. Additionally, DCBs were predicted to be cost-saving in the majority of analyses vs. individual therapies (e.g., DCB procedures versus using blood-based cobas® EGFR Mutation Test as an alternative test for patients without a tissue sample. More patients received treatment directly with a potential savings of $74,735 and $104,688 for inpatient and outpatient hospital perspectives, respectively. Additionally, DCBs were predicted to be cost-saving in the majority of analyses vs. individual therapies (e.g., DCB procedures versus using blood-based cobas® EGFR Mutation Test as an alternative test for patients without a tissue sample. More patients received treatment directly with a potential savings of $74,735 and $104,688 for inpatient and outpatient hospital perspectives, respectively. Additionally, DCBs were predicted to be cost-saving in the majority of analyses vs. individual therapies (e.g., DCB procedures versus using blood-based cobas® EGFR Mutation Test as an alternative test for patients without a tissue sample. More patients received treatment directly with a potential savings of $74,735 and $104,688 for inpatient and outpatient hospital perspectives, respectively. Additionally, DCBs were predicted to be cost-saving in the majority of analyses vs. individual therapies (e.g., DCB procedures versus using blood-based cobas® EGFR Mutation Test as an alternative test for patients without a tissue sample. More patients received treatment directly with a potential savings of $74,735 and $104,688 for inpatient and outpatient hospital perspectives, respectively. Additionally, DCBs were predicted to be cost-saving in the majority of analyses vs. individual therapies (e.g., DCB procedures versus using blood-based cobas® EGFR Mutation Test as an alternative test for patients without a tissue sample. More patients received treatment directly with a potential savings of $74,735 and $104,688 for inpatient and outpatient hospital perspectives, respectively. Additionally, DCBs were predicted to be cost-saving in the majority of analyses vs. individual therapies (e.g., DCB procedures versus using blood-based cobas® EGFR Mutation Test as an alternative test for patients without a tissue sample. More patients received treatment directly with a potential savings of $74,735 and $104,688 for inpatient and outpatient hospital perspectives, respectively. Additionally, DCBs were predicted to be cost-saving in the majority of analyses vs. individual therapies (e.g., DCB procedures versus using blood-based cobas® EGFR Mutation Test as an alternative test for patients without a tissue sample. More patients received treatment directly with a potential savings of $74,735 and $104,688 for inpatient and outpatient hospital perspectives, respectively.