The purpose of this analysis is to provide healthcare providers, purchasers, and surgeons with the type of surgical intervention. According to published data, the recurrence rate of abdominal wall hernia treatment, with a low complication rate, is considered a simple and effective method of abdominal wall hernia repair. It seems to be a safe and effective method of abdominal wall hernia repair. Compared options

**Open Mesh**

- Requires general anesthesia
- Recovery time: 3-4 days
- Hospital stay: 4-5 days
- High recurrence rate

**Mesh (tension free)**

- Requires general anesthesia
- Recovery time: 3-4 days
- Hospital stay: 4-5 days
- Low recurrence rate

**Indirect medical costs:**

- Human resources (non-medical personnel)
- Maintenance costs
- Capital costs, which include estate (surgery in the operative block, cost of recovery in the care ward).

- Loss of production due to indisposition or death,
- Patient's transport,
- Specialist consultation.

**Material costs:**

- Peritoneum

**Direct medical costs:**

- Various direct costs, including human resources, material used during therapy, pharmacological agents.

**COST-EFFECTIVENESS COMPARISON OF TENSION-FREE MESH REPAIR VS. TENSION SUTURE REPAIR METHODS OF INGUINAL HERNIA IN MEXICO**

One of the possible applications of Markov processes is to evaluate options, which is a common practice in medical economics. The main advantages of this method are:

- Sensitivity analysis: It allows the user to perform a sensitivity analysis to determine the impact of changes in the input parameters on the results of the model.
- Uncertainty analysis: It provides a measure of the uncertainty associated with the results of the model.
- Flexibility: It allows the user to model complex systems with multiple states and transitions.

**RESULTS - MEXICO**

**Table 1**

<table>
<thead>
<tr>
<th>Method</th>
<th>Cost/MXN 100,000</th>
<th>Cost/MXN 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mesh</td>
<td>5,976.35</td>
<td>1,074.27</td>
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<tr>
<td>Mesh</td>
<td>91,222.76</td>
<td>17,044.27</td>
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<td>4479.82</td>
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<tr>
<td>Mesh</td>
<td>5,099.00</td>
<td>947.27</td>
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<tr>
<td>Mesh</td>
<td>4,976.35</td>
<td>924.27</td>
</tr>
</tbody>
</table>

**SUMMARY**

The objective of this study was to compare the cost-effectiveness of open mesh vs. open non-mesh inguinal hernia repair in Mexico from a health provider perspective.

**Methods**

The cost-effectiveness of open mesh vs. open non-mesh repair was estimated using a Markov model with a 1-year time frame for 10 years. Market share differences were considered in a sensitivity analysis. Probabilistic sensitivity analysis was performed to evaluate the uncertainty associated with the results of the model. The cost of the open non-mesh group was $53,472 compared to the mesh group's $57,922. The cost of the open non-mesh group was $60,322 compared to the mesh group's $62,922. The results of the probabilistic sensitivity analyses were valid and robust to distributions analysis.

**Conclusions**

The results of the study indicate that in Mexico, open mesh inguinal hernia repair is not cost-effective from a health provider perspective and should be considered the standard of care based on economic and clinical factors.

**Bibliography**