



# MP49: Clinical and Economic Value of Routine Pathological Examination of Hernia Sacs and Scheduled Clinic Follow-ups after Inguinal Hernia and Hydrocele Repair in a Canadian Tertiary Care Children's Hospital

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# Conflict of Interest

Disclosure:

- I have no conflicts of interest to disclose

# Introduction

$$\text{Value} = \frac{\text{Quality}}{\text{Cost}}$$

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## Cost-effectiveness analysis (CEA)

$$CEA_{\text{specimen}} = \frac{\$58}{\text{specimen}} \times \frac{\# \text{ specimens examined}}{\# \text{ effective outcomes observed}}$$

$$CEA_{\text{person}} = \frac{\# \text{ specimens}}{\text{patient case}} \times \frac{\$58}{\text{specimen}} \times \frac{\# \text{ patients who had a specimen examined}}{\# \text{ patients who had effective outcomes}}$$

# Summary of pathological evaluation of specimens (2015-2018)

	Total	
Number of patients, n	1181	
Number of patients with specimens, n (%)	446 (38)	
Total specimens, n	531	
Pathological findings*, n (%)		
Normal	<b>515 (97)</b>	} n=16
Mesothelial hyperplasia	7 (1)	
Non-functional genital duct remnant	5 (1)	
Ectopic adrenal cortical tissue	3 (1)	
Epididymal structure	1 (0)	
Total number of patients with abnormal findings	15	
Average number of specimens submitted by patients who underwent pathological examination	1.2	

**\*No neoplasm or other abnormal findings. Clinical management unaltered by abnormal findings (n=16)**

# Summary of perioperative care and complications

	Total
Number of patients, n	1181
Total patients with scheduled clinic follow-ups, n (%)	418 (35)
Total clinic follow-up, n (%)	450
Median time to first follow-up, days (IQR)	65 (46-94)
Discharge to primary care, n (%)	381 (32)
Total complications, n (%)	18 (2)
Intraoperative	2 (0)
Postoperative	16 (1)
Total postoperative ED visit, n (%)	44 (4)
Telecommunication, n (%)	104 (9)

Reason	N (%)
General pain	10 (23)
Wound incision check	10 (23)
Scrotal swelling and pain	7 (16)
Postoperative fever	5 (11)
Scrotal hematoma	3 (7)
Incision site infection	3 (7)
Other	6 (14)

# Analysis

- Total direct cost of analyzing specimens
  - \$30,798 CAD (\$10,266/year)
- Cost-effectiveness analysis (CEA)
  - \$1,925 CAD/specimen
  - \$2,069 CAD/patient



# Conclusions

- Routine pathological evaluation of hernia sacs/processus vaginalis and scheduled clinic follow-up **rarely results in significant findings** and has **limited clinical and economical value**
- Suggestions to improve overall value in healthcare:
  - Standardized management and direct cost reduction
  - Pathological evaluations and clinic follow-ups for situations when intraoperative injuries have occurred or abnormalities are encountered that require confirmation