

Cutting Costs, Not Corners: Comparative Analysis of Hysterectomy Routes and Hospital Implications

INTRODUCTION

- Hysterectomy is the most common gynecological operation worldwide.
- 70% of hysterectomies are performed for benign indications, including leiomyoma, adenomyosis, and uterine prolapse.
- Gynecological surgeons decide on the route of hysterectomy based on the patient's safety, wishes, and suitability, as well as a wise use of healthcare expenditure, specifically regarding hospital stay and the cost of managing complications.
- Robotic surgery may offer benefits to both the patient and surgeon such as
 - Increased operating efficiency and precision
 - Improved ergonomics
 - 3-dimensional visualisation of the surgical field

METHOD

- Prospectively registered, retrospective review of healthcare records of women undergoing hysterectomy at MKUH
- Time period: January 2020 till November 2023.
- Inclusion criteria: all patients undergoing hysterectomy for benign or malignant conditions

Outcomes assessed:

- Length of surgery
- Length of hospital stay
- Cost of equipment and staff for the procedure
- Rate of complications including:
 - Readmission to hospital
 - Presentation to the emergency department without readmission
 - Post-operative complications

RESULTS

	Robotic	Laparoscopic	Abdominal	Vaginal	Total
Number (n)	134	45	243	75	497
Surgery Time (min)	180	141	103	77	
Length of Stay (days)	1.79	2.11	3.09	1.79	
Cost (£)	£1623	£1762	£650	£520	
Readmissions (n) [% total]	6 [4.4%]	2 [4.4%]	13 [5.3%]	3 [4%]	24 [4.8%]
Emergency Presentations (n) [% total]	14 [10%]	5 [11%]	21 [8.64%]	3 [4%]	43 [8.65%]
Post-op Complications (n) [% total]	14 [10.45%]	2 [4.4%]	24 [9.8%]	4 [5.3%]	44 [8.8%]

CONCLUSION

- The most cost-effective mode of hysterectomy in our unit was vaginal hysterectomy, and laparoscopic hysterectomy was the least cost-effective mode of hysterectomy
- Overall, robotic surgery may have a higher initial investment cost compared to other modes of hysterectomy, although outcomes are similar. However, this cost is decreasing with increased experience in robotic surgery.
- Additionally, sharing the cost of the robotic system across specialties further reduces the expense for the department.

AIM

To estimate the incidence of operative complications and compare operative cost and overall cost of different methods of hysterectomy including abdominal, vaginal, laparoscopic, and robotic techniques.

