

An audit on gynaecological surgeries in Al-Zahraa University Hospital 2015

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Abstract: Background: The gynaecological surgeon carries an important responsibility and faces many risks during and after gynaecological surgeries. Clinical audit is one of the fundamental principles of clinical governance, the process by which clinicians improve the quality of the care they provide. **Aim:** To appraise the effectiveness and efficiency of gynaecological surgeries performed in Al-Zahraa University Hospital within the period under review. **Subjects & methods:** A 12-year retrospective chart analysis of all gynecological procedures performed at Al-Zahraa University Hospital during the period from 1 January 2015 to 31 December 2015. Patients with complete relevant information in the registers were included in the audit and those with incomplete data were excluded. Data was further cleaned and analyzed using Microsoft Excel for Mac 2013, for frequencies and percentages. Results were presented by simple statistical tables. **Results:** A total of 343 patients; 383 gynecological surgeries were done. Hysterectomy was the most common one by percentage of (21.4%) followed by D & C biopsy & its types (19.1%). **Conclusion:** Common indications for gynecological procedures identified in this audit were DUB at the top for the following operations: hysterectomy, D & C, fractional curettage and hysteroscopic D & C. Second indication was infertility for the following operations: diagnostic laparoscopy, laparoscopic ovarian drilling, myomectomy and finally stem cell implantation. Teaching and training of junior gynecologists have to focus more on the major indications & their related operations. All gynecological operations need to be learned well to the new generations to increase efficiency and minimize complications.

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1. Introduction

Audit of all gynaecological procedures as one of the commonest operations performed in medical practice is not routinely done in developing countries (1). Clinical audit is one of the fundamental principles of clinical governance, the process by which clinicians improve the quality of the care they provide (2).

The aim of any gynaecological audit is to assess the physiological and operative severity score for the enumeration of mortality and morbidity and its validity for use in gynaecological surgeries (3).

The key feature of audit is that it involves reviewing actual and all surgical performance outcomes. It provides powerful information to the consumer (patient) and health care provider (Hospital, LHN, Government) as to the outcomes really achieved in a real life scenario, rather than in an artificial trial environment (2).

Audit may evaluate the outcome of care against an agreed standard, or the process of care, or the structure (organization or provision) of services. For example, research evidence suggests that the outcome for patients with ovarian cancer is better if they are operated on by an appropriately subspecialty-trained gynaecological oncologist and managed within the framework of a multidisciplinary team. An audit of the referral and management of patients with ovarian

cancer can provide an overview of service provision in this area (4).

An audit is important for planning purposes, to direct resource allocation, and can serve to improve clinical response and outcomes. It will serve to improve the quality of services delivered by all theatre users. The quality of life of those undergoing such procedures is also improved in the long run (1).

2. Subjects and method

Study design:

This is a retrospective study of all the gynaecological surgeries done in the department of obstetrics and gynaecology in Al-Zahraa University Hospital in 2015.

Population of the study: all patients who underwent to any gynaecological surgery in Al-Zhraa University Hospital in a span of one year (from 1 January, 2015, to 31 December, 2015) were enrolled in this retrospective study. There were no exclusion criteria. 343 medical records were enrolled in the study. Data were collected in case record files for statistical analysis.

Confidentiality:

Only the patient number and patient initials was recorded in the study, and if the patients name appears on any other document (e.g., ultrasound report), it was

kept in privacy by the investigators. The investigator maintained a personal patient identification Key (patient numbers with the corresponding patient names) to enable records to be identified.

Protocol Approval:

Before the beginning of the study and in accordance with the local regulation followed, the protocol and all corresponding documents was declared for Ethical and Research approval by the

Council of OB/GYN Department, Al. Azhar University.

Results

Table (1) shows that Hysterectomy was the most common operation by with percentage of (21.4%) é highly statistically significant difference between it and other gynecological operations é P-value <0.001.

Table (1): The gynecological operations.

Name of operation		No.	%
1	Hysterectomy	82	21.4%
2	D & C biopsy & its types	73	19.1%
3	Pelvic organ prolapse	55	14.4%
4	Laparoscopy	48	12.5%
5	Ovarian operations	35	9.1%
6	Hysteroscopy	23	6.0%
7	Removal of missed IUCD	16	4.2%
8	Myomectomy	16	4.2%
9	Vulval operations	13	3.4%
10	Stem cell implantation	5	1.3%
11	Exploration	5	1.3%
12	Unilateral salpingectomy	4	1.0%
13	IUCD insertion under anesthesia	3	0.8%
14	operations for hymen	3	0.8%
15	Uterine cavity operations	2	0.5%
Total		383	100%
Chi-square test		39.532	
p-value		<0.001 (HS)	

It also shows that D & C biopsy & its types is the 2nd most common operation by percentage of (19.1%), then followed by: Pelvic organ prolapse (14.4%), Laparoscopy (12.5%), Hysteroscopy (6.0%), ovarian operations (9.1%), removal of missed IUCD (4.2%), myomectomy (4.2%), vulval operations (3.4%) stem cell implantation (1.3%), exploration (1.3%), unilateral salpingectomy (1%), IUCD insertion under anesthesia (0.8%), operations for hymen (0.8%) and at least uterine cavity operations (0.5%).

Table (2): shows that a highly statistically significant difference between hysterectomy and other gynecological operations é P-value <0.001.

Table (3): shows that abdominal hysterectomy was more common than vaginal hysterectomy with highly statistically significant difference between the two types é P-value <0.001.

Table (4): shows that total abdominal hysterectomy was more common than subtotal abdominal hysterectomy with highly statistically significant difference between both of them é P-value <0.001.

Table (5): this table shows that DUB was the commonest indication for abdominal hysterectomy (91.5%) and uterine prolapse was the only indication for vaginal hysterectomy (4.9%) é highly statistically significant difference between abdominal hysterectomy complications and vaginal hysterectomy complications (p-value= <0.001).

Table (6): D & C biopsy was the most common type é a highly statistically significant difference p-value <0.001.

Table (2): Hysterectomy

Name of operation	No.	%	Chi-square	P-Value
Hysterectomy	82	21.3%	50.747	<0.001 (HS)
Other gynecological operations	302	78.7%		
Total	384	100%		

Table (1): Types of hysterectomy

Types of hysterectomy	No.	%	Chi-square	P-Value
Abdominal	78	95.1%	129.842	<0.001 (HS)
Vaginal	4	4.9%		
Total	82	100%		

Table (2): Abdominal hysterectomy subtypes

Abdominal hysterectomy subtypes	No.	%	Chi-square test	P-Value
TAH	61	78.2%	47.392	<0.001 (HS)
STAH	17	21.8%		
Total	78	100%		

Table (5): Indications of hysterectomy

Indication	N.	%	Chi-square	P-value	
Abdominal hysterectomy	DUB	75	91.5%	49.264	<0.001 (HS)
	Vesicular mole	1	1.2%		
	Ovarian cyst	1	1.2%		
	Uterine prolapse	1	1.2%		
Vaginal hysterectomy	Uterine prolapse	4	4.9 %		
Total	82	100%			

Table (6): D & C biopsy & its types

Types	No.	%	Chi-square test	P-value
D & C biopsy	46	63.0%	60.651	<0.001 (HS)
Fractional biopsy	20	27.4%		
Cervical polypectomy é D & C	5	6.8%		
Endometrial polypectomy é D & C	1	1.4%		
Cervical dilatation	1	1.4%		
Total	73	100%		

4. Discussion

The present study was conducted to appraise the effectiveness and efficiency of gynaecological surgeries performed in Al-Zahraa University Hospital in the whole year of 2015.

In this study from table (1) & (3) it was found that hysterectomy was the major surgical procedure performed within the period under review accounting for 21.4%. This is in disagreement with a study done in Kano, Nigeria (1) that showed the most common operation done was laparoscopy. This is also in agreement with a study done in Pakistan (8) showed that the most common gynaecological surgery was hysterectomy (66%) of total gynaecological surgeries included in their study; 58% was abdominal hysterectomy while 42% was vaginal hysterectomy.

Hysterectomy is performed for many indications. As shown in table (5) the common indication for abdominal hysterectomy was DUB n=75 (96.1%) while the commonest indication for vaginal hysterectomy was vaginal prolapse n=4 (100%). This results is in agreement with the results obtained from studies done Pakistan & Canada (5), (8). But this results is in disagreement with a study from Hong

Kong (6) that showed the most common indications for hysterectomy were fibroid and genital prolapse.

A study from Hong Kong (7) also showed genital prolapse was the most common indication (96.2%) for vaginal hysterectomy. This is in agreement with the results of the present study.

A study done by Salma Bhat et al., 2017 showed that TAH percentage was (76.6%) of total hysterectomies operations included in their study while STAH percentage was (4%). This is in agreement with the results of the present study that showed TAH percentage was (78.2%) while STAH percentage was (21.8%) as shown in table (4).

Common indications for gynecological procedures identified in this audit were DUB for hysterectomy, D & C fractional curettage and hysteroscopic D & C and infertility for diagnostic laparoscopy, laparoscopic ovarian drilling, myomectomy and stem cell implantation.

Equally important and useful from this audit, is the extrapolation of strategies and policies that may be employed in the surveillance and early management of DUB and infertility which were the two most common pathologies in this study.

Conclusion and Recommendations

Common indications for gynecological procedures identified in this audit were DUB at the top for the following operations: hysterectomy, D & C, fractional curettage and hysteroscopic D & C. Second indication was infertility for the following operations: diagnostic laparoscopy, laparoscopic ovarian drilling, myomectomy and finally stem cell implantation.

Teaching and training of junior gynecologists have to focus more on the major indications & their related operations.

All gynecological operations need to be learned well to the new generations to increase efficiency and minimize complications.

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