



# GENERAL SURGEONS; WORK LOAD & MANAGEMENT PATTERN IN MEDICAL TEACHING INSTITUTION LADY READING HOSPITAL PESHAWAR.

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**ABSTRACT... Objectives:** The objectives of this study were to find out the frequency of surgical cases and types of surgical interventions in a tertiary care hospital of Peshawar. **Study Design:** Descriptive observational study **Period:** Jan to June 2015. **Setting:** Surgical "D" Unit of Medical Teaching institution, Lady Reading Hospital Peshawar. **Material and methods:** Relevant information's were recorded on a pre-designed proforma prepared in accordance with the objectives of the study. **Results:** A total of 842 patients who were admitted in the MTI-LRH Surgical D Unit were enrolled in the study irrespective of age, gender and geographical representation. Out of total 58% were males and 42% females. The age range of patient was from 2 years to 92 years the maximum. The mean of age with SD was 30 years  $\pm$ 3.5 SD. Mode of age was 27 years. The frequency of surgical cases presentation (via emergency or outdoor department) were; Acute appendicitis 26%, cholelithiasis 17%, acute abdomen 9.2%, fire arm injuries/medico-legal cases 3.3%, peri-anal problems (pilonodal sinuses, hemorrhoids, fistula, anal fissure) 8.8%, Hernia (RIH& LIH 13%), carcinoma cases (stomach, rectum, pancreas) 1.5%, diabetic foot 3%, intestinal perforation & ileostomy 2.8%, etc. The frequency of types of surgical procedures were; The frequency of types of surgical procedures were; Open appendectomy 25%, Exploration laprotomy 8.4%, debridement 2%, Peri anal surgeries (EUA, Haemorrhoidectomy, anal dilatation, fistulectomy 9.4%), hernioplasty and herniotomy 16%, open cholecystectomy 13%, laproscopic cholecystectomy 4.4%, orchidectomy & orchidopexy 5%, and colostomy reversal 2.2% etc. 2% patients managed conservatively. Eight patients expired during the treatment (1%). 97% discharged satisfactorily. There were 2 medico-legal cases that after discharged went in law in forces custody. **Conclusion:** The commonest cause of seeking surgical care was acute abdomen, FAI/MLC, cholelithiasis, perianal disorders, hernia and testicular/scrotal problem are major surgical emergencies that we receive in our unit. In response the major types of surgical interventions are appendectomy, Exploration laprotomy, open cholecystectomy, laproscopic cholecystectomy, hernioplasty and herniotomy, orchidectomy & orchidopexy and colostomies. There is 1% mortality rate as observed.

**Key word:** Surgical emergencies, Types of surgical interventions, descriptive analysis

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## INTRODUCTION

General surgery considered to be the major specialty that deal with high volumes of emergency admissions in hospital. Emergency surgical management is of high priority in teaching hospitals and it is a very important for training surgical residents. There is a timely increase in the number of emergency admissions to hospital which include number of surgical emergencies.<sup>1</sup> A study reported that the majority of patients had intestinal problems (29.1%), urinary tract diseases (21.4%), hernia (15.6%), superficial lumps (12%), hepato-biliary-pancreatic diseases

(9.1%), breast diseases (4.2%), scrotal diseases (3.3%) and thyroid diseases (1.7%). A total of 726 (64.5%) patients were managed as elective cases, while 399 (35.5%) were managed as emergency cases.<sup>2</sup> The spectrum of apparent emergencies received with procedures is generally considered a reflection of disease prevalence in a region. In a report published by the American Board of Surgery, the average number of surgical procedures performed by general/laproscopic surgeons were: abdominal (hepato-biliary-pancreatic + hernia) 26%, alimentary tract/obstruction 16%, breast surgeries 14%, endoscopic 13%, skin/soft

tissue debridement 12% and vascular procedures in 10%.<sup>3</sup>

Medical Teaching Institution, Lady Reading Hospital Peshawar is 1600 beds tertiary care hospital. It has four surgical units. These facts and figures represent only Surgical D Unit of the hospital. MTI-LRH is the main hospital that receives all types of emergencies including natural or disastrous or bomb blast etc.

This study was performed to see the pattern of surgical emergencies and their management in a tertiary care hospital of Peshawar.

### MATERIAL AND METHODS

This descriptive observational study was conducted in Medical Teaching Institution, Lady Reading Hospital Peshawar, from January 2015 to June 2015. A total of 872 patients who were admitted in the MTI-LRH Surgical D Unit were enrolled in the study irrespective of age, gender and geographical representation. Out of total 58% were males and 42% females.

Exclusion criteria were patients admitted in other units of the surgical department of the hospital as well as patients admitted in other surgical and allied units. Inclusion criteria were all patients were admitted through out-patient department (OPD) or from emergency department or shifted directly to surgery from other departments.

The variables recorded and analyzed were patient's demographic information's, final diagnosis, disease pattern, presentation complaints, reason of admission, mode of treatment, type of operation, complications and the final outcome at time of discharge. Cases that left unit against medical advice (LAMA) were excluded.

Name, age, gender, address were the geographical variables, while the outcome, procedures and reason for admission (surgical emergencies were data variables. relevant information's were collected on a predesigned questionnaire prepared in accordance with the

objectives of the study.

Data was entered in Ms-Excel 2010 and analyzed for percentages and mean.

### RESULTS

A total of 872 patients who were admitted in the MTI-LRH Surgical D Unit were enrolled in the study irrespective of age, gender and geographical representation. Out of total 58% were males and 42% females (Table-I).

The age range of patient was from 2 years to 92 years the maximum. The mean of age with SD was 30 years  $\pm$ 3.5 SD. Mode of age was 27 years. 15 patients were in pediatric age group that were operated (table-II).

The frequency of surgical cases presentation (via emergency or outdoor department) were; Acute appendicitis 26%, cholilithiasis 17%, acute abdomen 9.2%, fire arm injuries/medico-legal cases 3.3%, peri-anal problems (pilonodal sinuses, hemorrhoids, fistula, anal fissure) 8.8%, Hernia (RIH& LIH 13%), carcinoma cases (stomach, rectum, pancreas) 1.5%, diabetic foot 3%, intestinal perforation & ileostomy 2.8%, etc(Table-III).

The frequency of types of surgical procedures were; Open appendicectomy 25%, Exploration laprotomy 8.4%, debridement 2%, peri anal surgeries (EUA, Haemorrhidectomy, anal dilatation, fistulectomy 9.4%), hernirraphy and hernitomy 16%, open cholecystectomy 13%, laproscopic cholecystectomy 4.4%, orchidectomy & orchidopexy 5%, and colostomy reversal 2.2% etc.(Table-IV).

Eight patients expired during the treatment (1%). 97% discharged satisfactorily. There were 2 medico legal cases that after discharged went in law in forces custody. (Table-V).

Sex	Total	percentage
Females	353	41.92
Males	489	58.08
Grand Total	842	

Table-I. Gender wise distribution of patients.

Age	Total	percentage
2-11	11	1.31
12-21	193	22.92
22-31	242	28.74
32-41	148	17.58
42-51	115	13.66
52-61	80	9.50
62-71	46	5.46
72-81	6	0.71
82-92	1	0.12
Grand Total	842	

Table-II. Age based categorization of patients

Outdoor admission complain list		
Final Diagnosis	Total	percentage
Abscess	7	0.83
Peri-anal problems (Anal Fissure, bleeding P/R, Fistula in ano, Pilonodal sinus)	68	8.08
Bed sore+ infected wound	12	1.423
Bleeding PV	2	0.24
Benign prostatic hyperplasia	3	0.36
Ca Head of Pancrease	4	0.48
Carcinoma ( Rectum+stomach)	6	0.71
Cholelithiasis	144	17.10
Diabetic Foot	26	3.09
Dj Stent	5	0.59
Epigastric Hernia	13	1.54
Fibroid Uterus	7	0.83
Inguinal Hernia (left or right)	111	13.18
Ileostomy +colostomy	24	2.85
Lipoma	4	0.48
Liver Mass	3	0.36
Mass Abdomen	1	0.12
Scrotal swelling (Vericolcel +Hydrocel)	43	5.11
Thyroid swelling	2	0.24
Emergency admissions		
Acute Abdomen	77	9.15
Pain RIF	219	26.01
Acute Pancreatitis	11	1.31
Duadenal Perforation	1	0.12
FAI / MLC	28	3.33
Intestinal perforation	5	0.59
Psoas Abscess	1	0.12
Stab Wound	7	0.83
Urinary Retention	7	0.83
Psoas Abscess	1	0.12
Grand total	842	

Table-III. Patient presentation complaints statistics.

Elective procedures list		
Procedure Name (if done)	Total	percentage
DJ Stent Removal	9	1.07
Aspiration	2	0.24
Conservatively Managed	16	1.90
Dressing and Debridement	38	4.51
Darning Repair	5	0.59
Excision of Lipoma	5	0.59
Peri-anal surgeries(EUA + Haemorrhoidectomy, dilatation, fistulectomy)	82	9.74
Incision and drainage	7	0.83
ileostomy/Colostomy/Colostomy Reversal	17	2.02
Lap Cholecystectomy	37	4.39
Ligation Lt Varicocele	1	0.12
Left and right Orchidectomy/ orchidopexy	42	4.99
Mesh Repair and herniotomy	135	16.03
Open Cholecystectomy	109	12.95
Redical Nephrectomy	1	0.12
Sigmoidoscopy & Biopsy	3	0.36
Total abdominal Hystrectomy	7	0.83
Thyroidectomy	2	0.24
Trans-Vesical Prostatectomy	6	0.71
Whipple Procedure	3	0.36
Emergency procedures list		
Acute Pancreatitis	7	0.83
Appendectomy	212	25.18
Re- Exploration Laprotomy	16	1.90
Cystoscopy	4	0.48
Exp Laprotomy	71	8.43
Rouxen Gastrojetunostomy	3	0.36
Urethral Dilatation	2	0.24
Grand total	842	

Table-IV. Types of surgical interventions.

Outcome of patients	Total	Percentage
Expired	8	0.95
Medico-legal cases	2	0.24
Satisfactory	832	98.8
Grand Total	842	

Table-V. Outcome data.

## DISCUSSION

The spectrum of procedure or pattern of admission in our unit also reflects the prevalence of the specific disease in our society as MTI-LRH receives patients for all over the province.

The frequency of surgical cases presentation (via emergency or outdoor department) were; Acute appendicitis 26%, cholelithiasis 17%, acute abdomen 9.2%, fire arm injuries/medico-legal cases 3.3%, peri-anal problems (pilonidal sinuses, hemorrhoids, fistula, anal fissure) 8.8%, Hernia (RIH& LIH 13%), carcinoma cases (stomach, rectum, pancreas) 1.5%, diabetic foot 3%, intestinal perforation & ileostomy 2.8%, etc. A matching study from Pakistan also reported acute appendicitis (22.4%).<sup>2</sup>

Caterino from Rome reported appendicitis as the most frequent diagnosis (16.4%), followed by non-specific abdominal pain (15.5%), cholelithiasis (12.5%) and cancer of GI tract (10.3%).<sup>4</sup>

The next most common disease requiring a surgical procedure were peri-anal disorders 8.8%, hemorrhoids were major contributor to this group up to 6%. The high prevalence is due to dietary pattern lacking fibers that causing constipation and forceful defecation, multiple pregnancies or occupation with prolonged standing. The prevalence rate of symptomatic haemorrhoids in the United States is 4.4% of the total adult population.<sup>5</sup> which matches with our findings.

The frequency of types of surgical procedures were; The frequency of types of surgical procedures were; Open appendectomy 25%, Exploration laprotomy 8.4%, debridement 2%, peri anal surgeries (EUA, Haemorrhoidectomy, anal dilatation, fistulectomy 9.4%), herniorrhaphy and herniotomy 16%, open cholecystectomy 13%, laproscopic cholecystectomy 4.4%, orchiectomy & orchidopexy 5%, and colostomy reversal 2.2% etc.

Chianakwana et al did a study in Nigeria reported appendectomy as the most common emergency operation in 139 patients, it is followed by road traffic accidents (RTAs) in 137 patients, fire arm injuries 127 cases, acute intestinal obstruction in 92 cases, acute urinary retention in 126 cases and priapism reported in 2 cases.<sup>6</sup> Acute appendicitis is among the

most common causes of surgical abdominal diseases worldwide.<sup>7</sup> Inguinal hernia 16% (is 2<sup>nd</sup> most common surgical disease in this series, which also reported in several other international studies.<sup>8</sup> Humber & Frecker<sup>9</sup> from rural areas of British Columbia reported appendectomy and hernia surgery as the most common emergency and elective surgery operations respectively. Cholecystectomy in our study was 13% other study reported it 3.5% and above.<sup>10</sup> We had performed 9.4% peri-anal surgeries including major of these as haemorrhoidectomy (6.4%). Another study also matching our findings as haemorrhoid or perianal surgery (4%).<sup>11</sup> There is 1% mortality rate as observed. Another study from Pakistan reported The mortality rate in their series was 0.62%.<sup>2</sup>

## CONCLUSION

The commonest cause of seeking surgical care was acute abdomen, FAI/MLC, cholelithiasis, perianal disorders, hernia and testicular/scrotal problem are major surgical emergencies that we receive in our unit. In response the major types of surgical interventions are appendectomy, Exploration laprotomy, open cholecystectomy, laproscopic cholecystectomy, herniorrhaphy and herniotomy, orchiectomy & orchidopexy and colostomies. There is 1% mortality rate as observed.

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
## REFERENCES

1. Campbell WB, Lee EJ, Van de Sijpe K, Gooding J, Cooper MJ. **A 25-year study of emergency surgical admissions.** *Ann R Coll Surg Engl.* 2002; 84:273-7.
2. Shamim M, Bano S, Iqbal SA **Pattern of cases and its management in a general surgery unit of a rural teaching institution.** *JPMA* 62: 148; 2012.
3. Ritchie WP Jr, Rhodes RS, Biester TW. **Workloads and practice patterns of general surgeons in the United States, 1995-1997: a report from the American Board of Surgery.** *Ann Surg* 1999; 230: 533-42.
4. Caterino S, Cavallini M, Meli C, Murante G, Schifano L, Lotito S, Toncher F. **Acute abdominal pain in emergency surgery: clinical epidemiologic study of 450 patients.** *Ann Ital Chir* 1997; 68: 807-17.
5. Schubert MC, Sridhar S, Schade RR, Wexner SD.

- What every gastroenterologist needs to know about common anorectal disorders.** World J Gastroenterol 2009; 15: 3201-9.
6. Chianakwana GU, Ihegihu CC, Okafor PI, Anyanwu SN, Mbonu OO. **Adult surgical emergencies in a developing country: the experience of Nnamdi Azikiwe University Teaching Hospital, Nnewi, Anambra State, Nigeria.** World J Surg 2005; 29: 804-7.
  7. Noudeh YJ, Sadigh N, Ahmadnia AY. **Epidemiologic features, seasonal variations and false positive rate of acute appendicitis in Shahr-e-Rey, Tehran.** Int J Surg 2007; 5: 95-8.
  8. Campbell WB, Lee EJ, Van de Sijpe K, Gooding J, Cooper MJ. **A 25-year study of emergency surgical admissions.** Ann R Coll Surg Engl. 2002; 84:273-7.
  9. Humber N, Frecker T. **Rural surgery in British Columbia: is there anybody out there?** Can J Surg 2008; 51: 179-84.
  10. Ohene-Yeboah M **Acute surgical admissions for abdominal pain in adults in Kumasi, Ghana.** ANZ J Surg 2006; 76: 898-903.
  11. Schirmer BD, Winters KL, Edlich RF. **Cholelithiasis and cholecystitis.** J Long Term Eff Med Implants 2005; 15: 329-38.



#### AUTHORSHIP AND CONTRIBUTION DECLARATION

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