Journal of Paediatric Surgeons of Bangladesh (2012) Vol. 3 (1): 26-29
Official organ of the Association of Paediatric Surgeons of Bangladesh

Journal of Paediatric Surgeons of Bangladesh

Original Article

AN AUDIT OF THE PATIENTS TREATED IN PAEDIATRIC SURGERY DEPARTMENT OF AD-DIN WOMEN'S MEDICAL COLLEGE HOSPITAL, DHAKA

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Abstract

Background: Surgery without audit is like playing without keeping the score. Medical/Surgical Audit is the evaluation of the quality and efficiency of the surgical services offered to the patients by a group of Medical Personnel in a Hospital. A surgical Audit of the patients of Department of Pediatric Surgery in a non-government Hospital was performed to evaluate overall performance and the quality of service delivered to the patients.

Methods: It was a randomized study carried out in the department of Pediatric surgery in Ad-din Women's' Medical College Hospital during the period of January 2008 to December 2012 (total 5 years). Total 4613 patients were included in this study. Among them 832 (15.91%) patients were treated after admission and 4396(84.09%) patients were treated as OPD patients.

Results: Among the total 4613 patients, 3953 patients were male and 660 patients were female. Total 3127 patients were under 5 years and 1486 patients were over 5 years. Among total 832 admission, 551 (66.22%) were elective cases and 281 (33.78%) were emergency cases.

Conclusion: Clinical audit is a process. It is a process used by clinicians who seek to improve patient care. So in this audit we have tried to evaluate our overall performance and the quality of service delivered to our patients in the last 5 years period to find out the limitations and deficiencies prevailing in this field.

Keywords: Audit, Paediatric Surgery Department, Ad-din Women's Medical College Hospital

Introduction

Surgery without audit is like playing without keeping the score.[1] Clinical audit is a process. It is a process used by clinicians who seek to improve patient care. The process involves comparing aspects of care (structure, process and outcome) against explicit criteria. A Medical/Surgical Audit is the evaluation of the quality and efficiency of the surgical services offered to the Patients by a group of Medical Personnel in a Hospital. When done by the persons concerned of the same Hospital/Unit it is called an internal audit, on the other hand an external audit is periodically done by an outside agency to verify the accuracy of internal audit. In such an audit hospital records of the concerned unit of a particular period are reviewed, analyzed and evaluated on the basis of different indicators to have an access to the quality of the patient's care, cost effectiveness and efficiency with which the care is provided. The aim is to safeguard the Patient's interest and find out the deficiencies in the field of hospital administration and professional skills. Ultimate objectives are to achieve highest standard of patients care & services[2].

Ad-din Women's Medical College Hospital is a 500 bedded General Hospital. Fifty beds in General Ward & some Cabin facilities are allocated for Surgical Patients. Pediatric Surgery Department is functioning since 2000 and enjoys the facilities sharing within greater surgical activities. A Surgical Audit of the overall activities in this department was performed.

Materials and Methods

This is a retrospective internal audit conducted among the patients attended in SOPD, admitted and treated in the Pediatric Surgery Department of Ad-din Women's Medical College Hospital between January 2008 and December 2012. The infrastructure and manpower were meager in comparison to the workload (Table 1). The analysis and evaluation of the work were done on the basis of standard indicators used in surgical audit.

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The objectives of the audit were:

a) To evaluate overall performance,
b) To evaluate the quality of service delivered,
c) To find out the limitations and deficiencies prevailing in this field

Table-I

The facilities available in the Department of Pediatric Surgery

SL. No.	Facilities	Number
1.	Number of beds	10 ±5
2.	Consultant Surgeon	1
3.	House officers (Doctors)	3±2
4.	Nursing Staffs	4 (On rotation duty)
5.	MLSS	1
6.	Admission : a. Emergency	Everyday
	b. SOPD	Everyday
7.	Theatre facility : a. Emergency	Every day, in share with other SU
	b. Schedule	Twice weekly, another days- in share with other SU

Analysis of the Results:

Over 85% patients were boys and 2-5 year age group predominated followed by 01 year constituting about 67% below 5 years of age (Table 2). Minor surgical procedures formed the bulk of workload with circumcision accounting for 65% of total (Table 3a). Table 3b depicts the different causes of intestinal obstruction. Analysis of works and outcomes are shown in table 4 & 5. The complications rates are somewhat low considering the small number of major operations (Table 6).

Table-II

Distribution of Age and Sex (n=4613)

Age group	Male	Female	Total
0-1 year	1018	348	1366
2-5 years	1581	180	1761
6-9 years	1201	87	1288
10-12 years	153	45	198
Total	3953	660	4613

Table 3a

Disease profile of Pediatric Surgical Patients (n=4613)

SL. No.	Name of the Diseases	No. of Patients	Percentage(%)
1.	Congenital Hernia/ Hydrocele (Inguinoscrotal)	314	6.81
2.	Abscess (Parietal, Perianal, Gluteal, Inguinal, Thigh, Neck, Axilla etc.)	224	4.85
3.	Rectal Polyp	164	3.55
4.	Umbilical granuloma	131	2.84
5.	Acute & Recurrent Appendicitis/Burst Appendix	96	2.08
6.	Labial Adhesions	88	1.91
7.	Intestinal Obstruction	78	1.69
8.	Hypospadias	70	1.52
9.	Undescended testis	52	1.13
10.	Burn	50	1.08
11.	Tongue Tie	44	0.95
12.	Polydactyle/Syndactyle	34	0.73
13.	Congenital Cyst : Dermoid Cyst, Thyroglossal Cyst, Sacrococcygeal Teratoma	16	0.35
14.	Infantile Hypertrophic Pyloric stenosis	14	0.30
15.	Umbillical/Para Umbillical/Epigastric Hernia	14	0.30
16.	Cleft Lip/Cleft Palate	12	0.26
17.	Mucosal Cyst	11	0.24
18	Hamartomas	11	0.24
19.	Torsion Testis	9	0.19
20.	Abdominal Lump- Ovarian Cyst, Mesenteric Cyst, Dermoid Cyst, Choledocal Cyst	5	0.11
21.	Perianal Sinus/Fistula	5	0.11
22.	Preauricular Sinus/Branchial Sinus	4	0.09
23.	Penile Torsion	2	0.04
24.	Patent Urachus	1	0.02
25.	Pilonidal Sinus	1	0.02
26.	Accessory Auricle	1	0.02
27.	Minor Problems: Foreign body, Lipoma, Sebaceous Cyst, Haematoma, Ganglion, FB Granuloma, Cut wound, Meatal Stenosis	142	3.08
28.	Circumcision- Elective & For some diseases- Phimosis, Balanoposthitis, Recurrent U.T.I., Smegmal Cyst etc.	3016	65.38

Table 3b

Causes of Intestinal Obstruction in Children (78)

SL. No.	Causes	Number	Percentage (%)
1.	Anorectal Malformation	24	30.77
2.	Intussusception	24	30.77
3.	Neonatal Intestinal Obstruction- Intestinal Atresia Meconium Ileus	17	21.79
4.	Hirschsprung's Disease	12	15.38
5.	Colonic Atresia	1	1.28

Table-IV

The analysis of the work done (n=4613):

SL. No.	Indicators	Types	No.	Percentage(%)
1.	No of OPD visit	Everyday	All working days	100
2.	No of OPD patients (5228)	a) Admission	832	15.91
		b) Treatment as OPD pt.	4396	84.09
3.	Admission (832)	a) Schedule	551	66.22
		b) Emergency	281	33.78
4.	Operation performed	a) Elective	4192	90.87
		b) Emergency	421	9.13
		c) Major	708	15.35
		d) Minor	3905	84.65
5.	Anesthesia	a) General	4250	92.13
		b) Local	363	7.87
6.	Duration of Hospital Stay	Average three to seven days		
7.	Cost involvement(Approx)	Totally personal	Tk.=3,000 to per patient	15,000

Table-V

Outcome of the Patients (n=4613)

SL.No.	Indicators	Number	Percentage
1.	Uneventful recovery	4599	99.70
2.	Complications-	11	0.24
	a) Peroperative	2	0.04
	b) Post operative: Major		
	Minor	63	0.130.06
3.	Death-	3	0.06
	a) Per operative	0	0.00
	b)Post operative-	3	0.06
	Net death (>24hrs.) Septcaemia due to late Presentation & poor general condition.		

Table-VI

Complications (n=11)

SL.No.	Complications	Number	Percentage
1.	Peroperative-		
	Cardiac Arrest	2	0.04
2.	Post operative-		
	Major- Post Urethroplasty Fistula	6	0.13
	Minor- Wound infection	3	0.06

Discussion

The predominance of male may be explicable by the fact that circumcision was done in over 65% patients and also by preferential treatment to the boys than the girls in our society[3].

Tables IIIa &b are showing the picture of mostly general pediatric surgical conditions which is consistent with that found in standard textbook of Pediatric Surgeryt . In my study circumcision, inguinal hernia & hydrocele are the commonest problems which are also mentioned in most text booksu . The result also shows that routine admissions (66.22) & operations were almost twice than emergency admissions (33.78%) & operations. This may be due to lack of full-fledged round the clock emergency services. Out of 4250 (92.13%) general anesthesia, only 2 cases developed per-operative cardiac arrest. About 99.70% of the children recovered smoothly. This is due to enriched Anesthesiology department with special expertness in pediatric anesthesia. Out of 4613 patients only 3patient (0.06%) died, all of them due to very late presentation with critically ill neonatal cases (Table-V).

This audit has enabled us to identify many limitations and deficiencies prevailing in this field of hospital services. Those are lack of proper planning and organization, lack of coordination and accountability in hospital administrationv . Lack of full time emergency service with trained doctors is the main cause of decreased emergency admission and operation.

The essential prerequisites for such a highly specialized surgical department are adequate number of beds, consultant surgeons, properly trained doctor and nursing staffs, a well equipped modern operation theatre attached with a fully organized neonatal ICU, a modern pathological laboratory and radiological service with pediatric expertise. It also needs a modern documentation center for proper hospital records and a dependable hospital supply. Unfortunately some of them are still absent in this hospital and others are inadequate.

Adequate budget allocation, coordinated initiative and sincere effort by the senior hospital administrators are essential to overcome all these limitations. A regular evaluation of the overall performance, quality of services could be found by introducing medical/ surgical audit in all the sectors of health services in Bangladesh. This will improve the accountability and transparency in this sector to the peoplew .

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