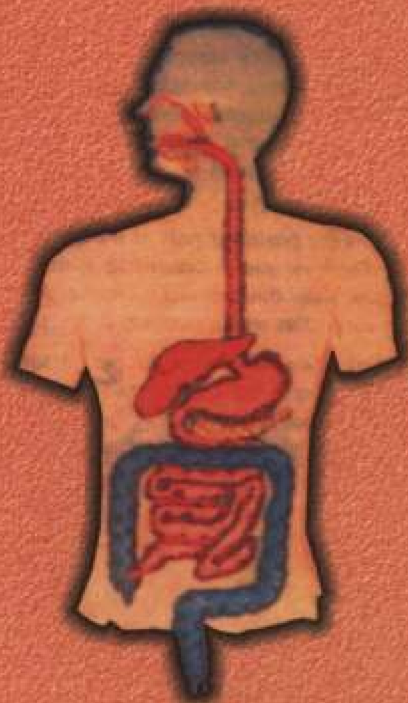
The Liver Clinic

LIVER & GI DISEASES IN TEACHING HOSPITALS OF RAWALPINDI

Volumes & Outcomes



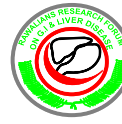
EIGHT YEARS AUDIT REPORT 1998-2005

2nd Issue: November: 2005

LIVER AND GASTROINTESTINAL DISEASES IN TEACHING HOSPITALS OF RAWALPINDI PAKISTAN

VOLUMES & OUTCOMES

EIGHT YEARS AUDIT 1998-2005



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PREFACE

We are pleased to present the second issue of “eight years audit of GI & Liver diseases in the teaching hospitals of Rawalpindi - Pakistan.” This booklet highlights the volumes and outcome of different diseases. Although all the components of a medical unit are described but the beauty is GI & Liver Clinic. Extensive work has been carried out to show each and every aspect of GI & Liver disease burden.

We have created this booklet to share with our colleagues, patients and health information management system planners to scope GI & Liver disease burden in wards, outpatient, emergency and procedure rooms.

We are thankful to young doctors of our units as well as the members of the Rawalians' Research Forum on GI & Liver Diseases in compiling and organizing this data. We welcome you for this opportunity to work and hope you find this effort helpful and informative.

Sincerely,

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VOLUMES AND OUTCOMES OF ADMISSION PATTERN, EMERGENCY PRESENTATION, OUTDOOR PRESENTATION OF AND MORTALITY GI & LIVER DISEASES IN TEACHING HOSPITALS OF RAWALPINDI.

(An Eight Years Audit , 1998 to 2005)

Introduction

The current global pandemic of hepatitis is a major public health problem. According to WHO Reports (April 27-29, 1987), the prevalence of hepatitis is 0.5 to 10% in different parts of the world. There are 350 million carriers of HBV and 170 million people are infected with HCV all over the world. Two third of these people live in developing countries.[1, 2.3] In Pakistan, carrier rate of HBV is 4-5% and that of HCV is 5-6% with total population of 14.5 million. Many of these patients end up with chronic hepatitis, cirrhosis, end stage liver disease and hepatocellular carcinoma. They have repeated admissions, and presents in emergency as well as in outpatient department with complications like GI bleed, ascites, encephalopathy, hepatocellular carcinoma, hepato-renal and hepato-pulmonary syndrome.[4,5,6,7]

This causes a lot of strain on hospital financial resources, human resource, hospital logistics, laboratory and blood bank services and add misery, financial constraints and social problems to the family. Regarding GI disease, dyspepsia, peptic ulcer, irritable bowel syndrome and GI malignancies are common in Europe and USA, while in developing countries GI infections, chronic diarrhoea, abdominal tuberculosis, ulcer peptic disease and dyspepsia are common.

In 1995, acute infectious diarrhoea caused more than three million deaths world-wide in children less than five years of age, a death rate that has gone down from five million per year in 1987. Most of these deaths occur in developing countries, where two thirds of the world's population live.[8] In Pakistan, poverty, rapid urbanization, inadequate sewerage disposal, lack of clean drinking water, lack of education and health facilities had resulted in increased burden of preventable GI and liver diseases in tertiary care hospitals. In light of these facts, we planned to document the magnitude of GI and Liver diseases in teaching hospitals of Rawalpindi i.e., Holy Family Hospital, District Headquarters Hospital and Rawalpindi General Hospital for last eight years from 1998 to 2005.

AIMS AND OBJECTIVES

1. To document the pattern of presentation of GI and Liver diseases

in teaching hospitals of Rawalpindi Medical College in Rawalpindi region.

2. To document the burden of GI and Liver diseases in relation to other diseases like cardiovascular, neurological and respiratory diseases.
3. To use this data for future health planning in regard to financial resources, specialty oriented patient care and medical education curriculum.
4. To study the mortality trends due to different disease in general and GI and Liver diseases in particular.
5. To assess the need of specialty of gastroenterology and hepatology in Rawalpindi Medical College, Rawalpindi.
6. To publish the data which is lacking in our Institutions and finally to develop central registry and database for GI and Liver diseases.
7. To create a research culture in medical colleges and hospitals and to advocate evidence based medical practice.

PATIENTS AND METHODS

The special registers were designed to document yearly data of indoor, emergency department, mortality audit and GI & Liver clinic in outpatient department. The data of last eight years from 1998 to 2005 was analyzed. The data was mainly collected from medical unit - II of Holy Family Hospital, medical department of District Headquarters Hospital and medical unit - II of Rawalpindi General Hospital. The following variables were studied.

1. The frequency of GI and Liver diseases in relation to other diseases.
2. Emergency presentations of GI and liver diseases.
3. Outpatient clinical presentations of GI and Liver diseases.
4. Number and causes of mortality resulting from different diseases in admitted patients as well as in general emergency department.

DATA ANALYSIS

ADMISSIONS AUDIT

It was recorded that rate of admission of GI and Liver diseases varies from 22% to 26% in these eight years, except in 2000, where more patients with cardiovascular diseases e.g., myocardial infraction and congestive cardiac failure (28%) were admitted rather than 25% of GI and Liver diseases . So GI and Liver diseases remain the main cause of admission in medical wards.

EMERGENCY DEPARTMENT AUDIT

Emergency department audit showed that major emergencies were cardiovascular related (27-29%) followed by GI and Liver emergencies, particularly gastroenteritis, variceal bleed, hepatic encephalopathy and spontaneous bacterial peritonitis, hepatorenal and hepatopulmonary syndrome.

GI & LIVER CLINIC AUDIT

The data from GI and Liver Clinic showed that outpatient presentation of GI and liver disease patients goes in parallel to each other. Dyspepsia and epigastric pain was commonest symptomology in GI patients, while ascites, spontaneous bacterial peritonitis, jaundice and GI bleed was common in liver patients. For example, total patients seen in Medical Unit II outpatient department, that is thrice weekly, in year 2001, were twenty five thousand (25,000) while patients visited to weekly GI & Liver Clinic were five thousand and five hundred (5,500). This ratio is quite high (5:1). If there would have been proportionate outpatient clinics, GI and Liver disease ratio will be even more.

MORTALITY AUDIT

The mortality data analysis showed that commonest cause of mortality was chronic liver disease due to HCV and HBV infections and its complications like GI bleed, encephalopathy, hepatorenal failure, hepatopulmonary syndrome and hepatocellular carcinoma.

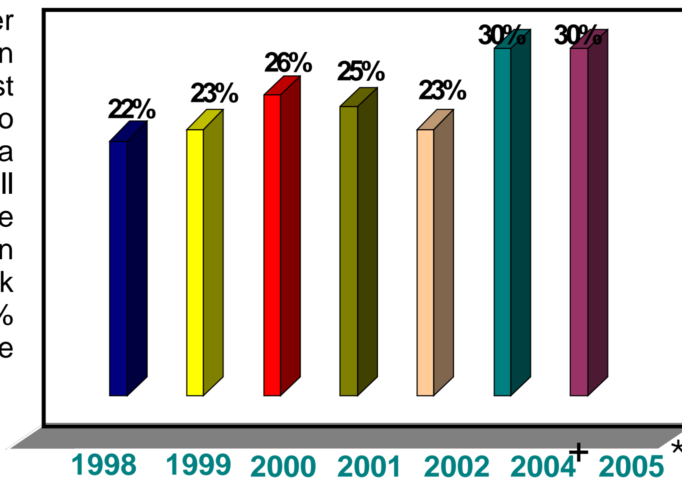
The detailed results are shown in relevant sections.

Holy Family Hospital Rawalpindi

2005 - 1998

Admission Audit
2005 -1998

The burden of GI & Liver diseases in comparison to total admissions in last five years, continues to progress almost at a constant ratio then fell gradually. Although, the figures have been risen constantly. The peak year was 2000, with 26% GI & Liver share of the total admissions

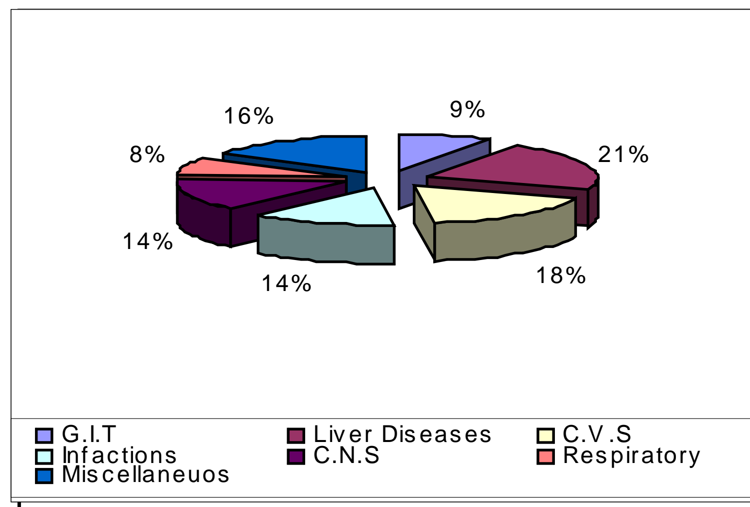


	1998	1999	2000	2001	2002	2004+	2005*
Total Admission	1267	2104	2139	2587	2546	1036	1930
GI & CLD Admission	279	483	571	646	601	312	579

***Admission data of HFH is from January- August 2005**
+Admission data of HFH is from July - December 2004

DISEASE PATTERN 2005*

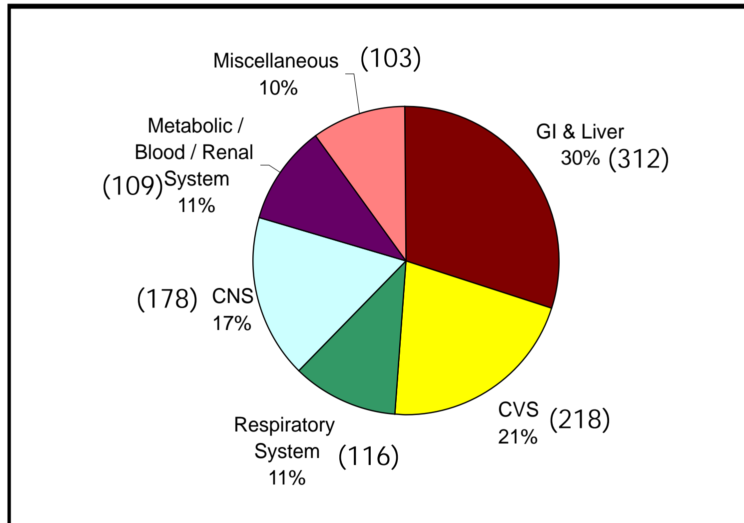
Total Patients: 1930
GI Patients: 579 Male : 1041 Female: 889



***Admission data of HFH is from January - August 2005**

DISEASE PATTERN 2004*

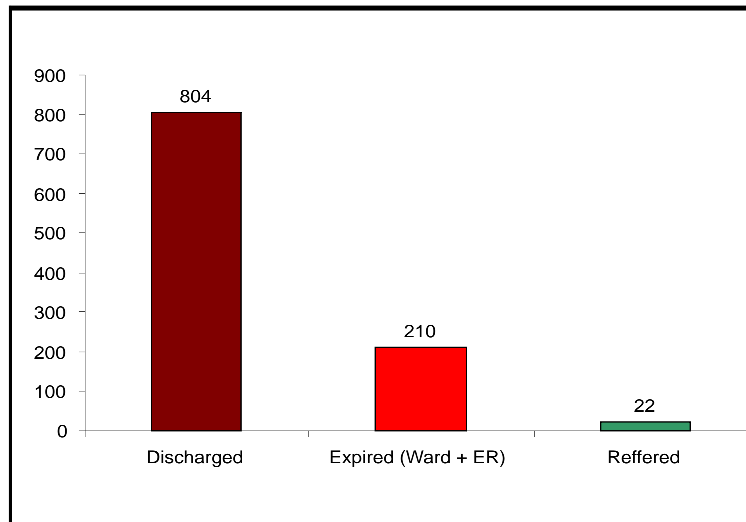
Total Patients: 1036
GI & Liver Patients: 312 Male:170 Female : 187



*Admission Disease data of HFH is from July - December 2004

DISEASE PATTERN 2004*

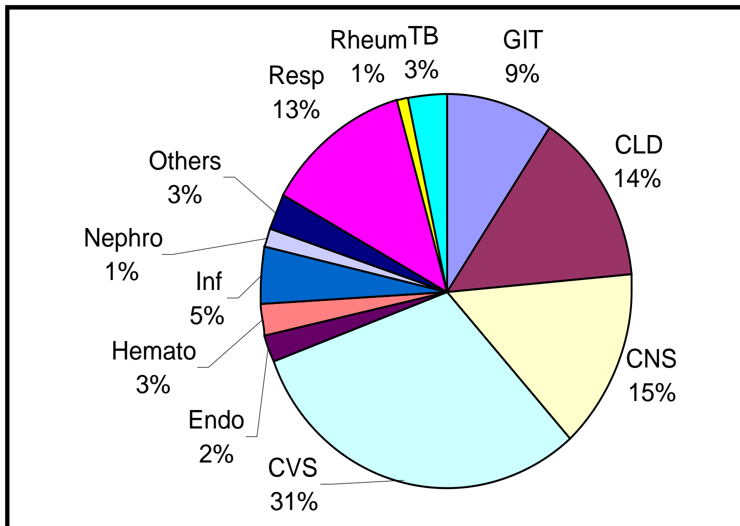
Total Patients: 1036
Male Patients: 529 Female Patients: 507



*Admission Disease data of HFH is from July-December 2004

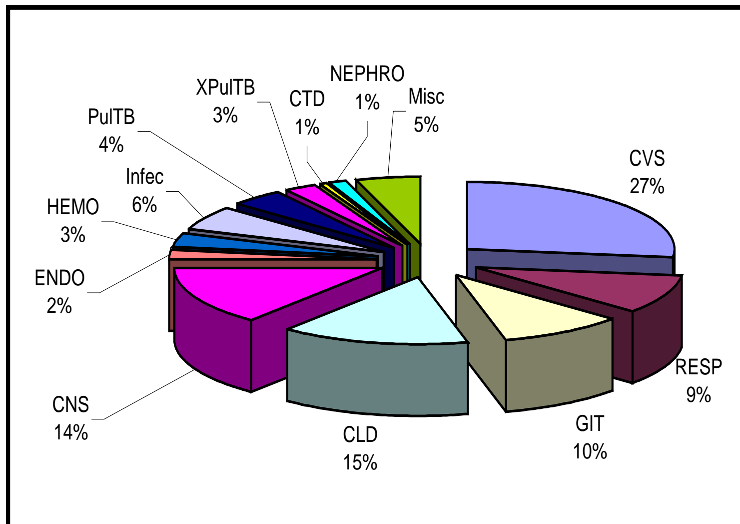
DISEASE PATTERN 2002

Total Patients: 2546
GI Patients: 238   CLD Patients: 363



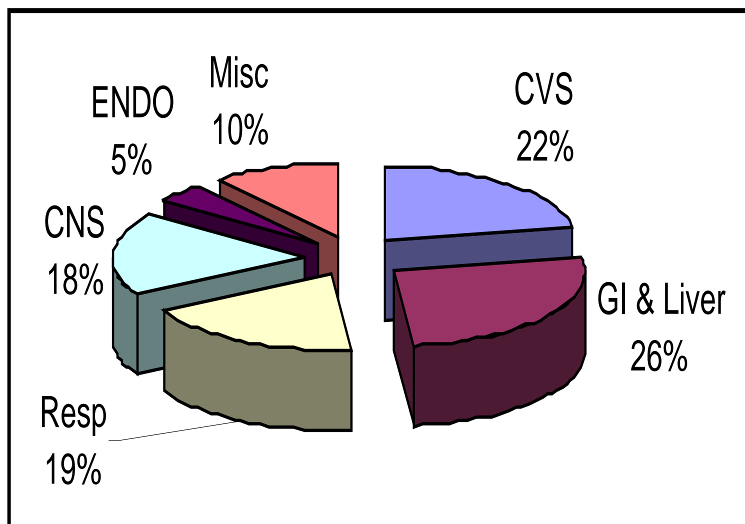
DISEASE PATTERN 2001

Total Patients: 2587
GI Patients: 253, CLD Patients : 393



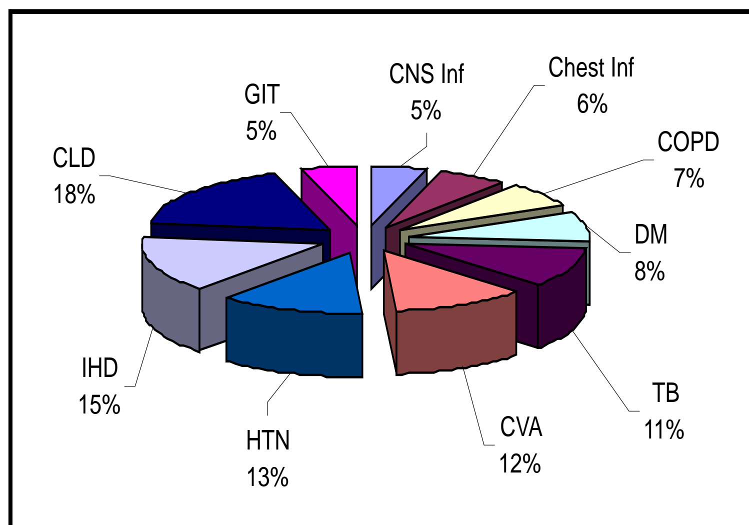
DISEASE PATTERN 2000

Total Patients: 2139
GI and CLD Patients: 571



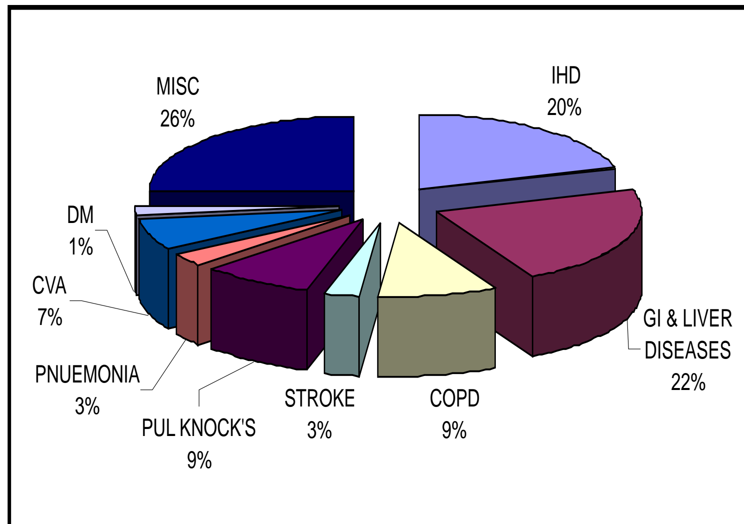
DISEASE PATTERN 1999

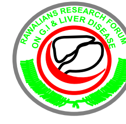
Total Patients : 2104
GI Patients: 105 CLD Patients: 378



DISEASE PATTERN 1998

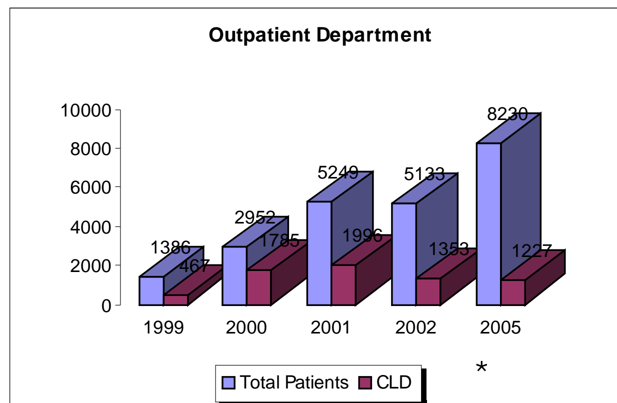
Total Patients: 1267
GI and CLD Patients: 279





Outpatient Department
GI & LIVER CLINIC
2005-1999

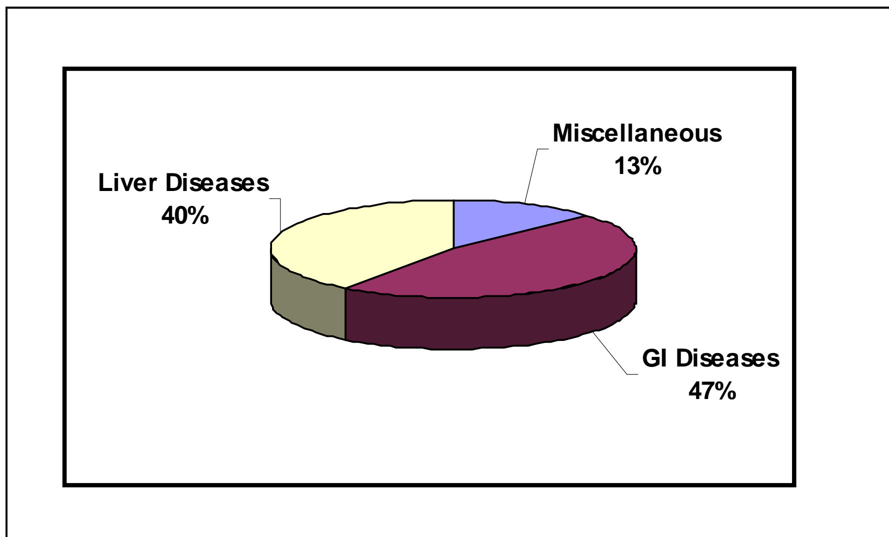
The specialty clinic for GI & Liver diseases was established in late 1998 but it achieved its objective by continuously increasing its number of patients. Although the liver disease dropped in the last year but total number of patients remained the same. The year 2001 was the highest achievement year for both total and CLD patients among five years.



*GI & Liver Clinic data of HFH is from Jaunary- August 2005

DISTRIBUTION OF PATIENTS

Total Patients: 17311
GI: 8131 Liver: 6909 Others:2271

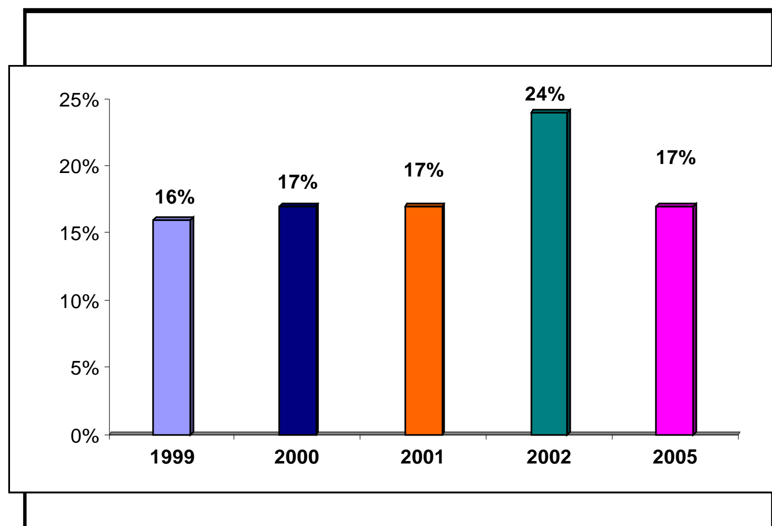


Seven years analysis of total patients attended in GI & Liver Clinic show that GI diseases patients were much more common than Liver and other diseases.

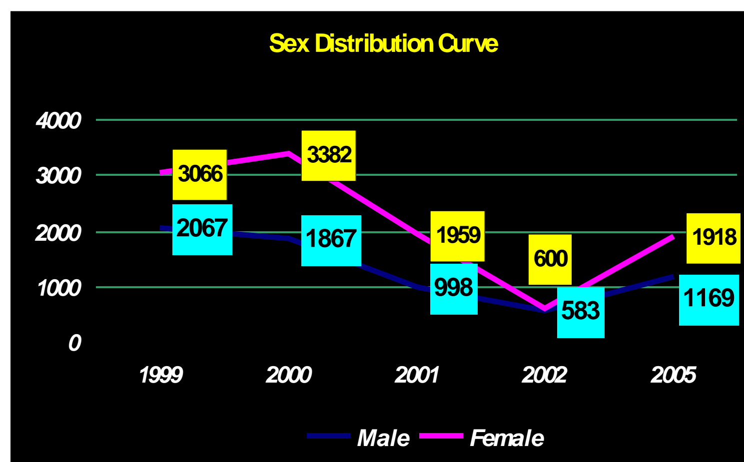
GI LIVER CLINIC 2005-1999

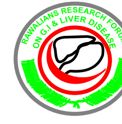
The success story of GI & Liver Clinic in eight years showing that it was started with disease burden of 16% in 1999 then continuously progressed to 17% in 2005. Female patients were more as compared to male patients.

GI & LIVER DISEASE BURDEN



SEX DISTRIBUTION CURVE

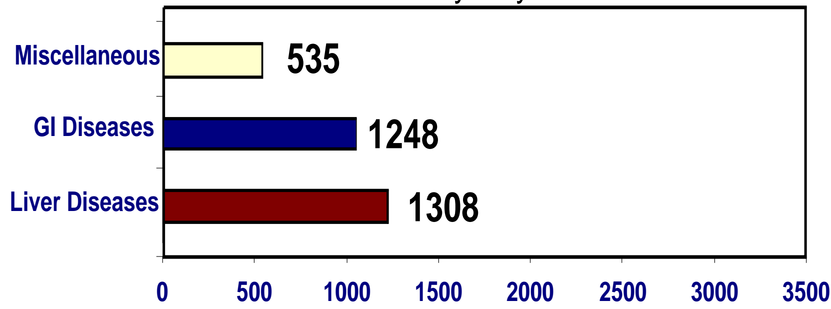




GI & Liver Clinic 2005

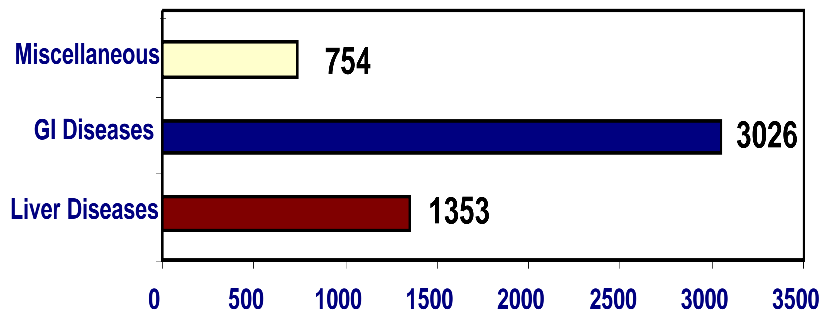
Total patients:3087

January-July 2005



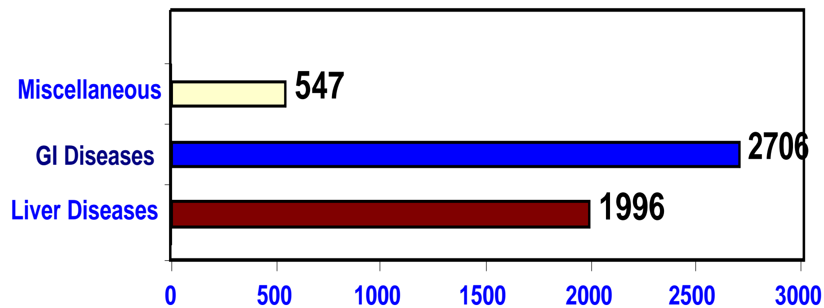
GI & Liver Clinic 2002

Total patients: 5133



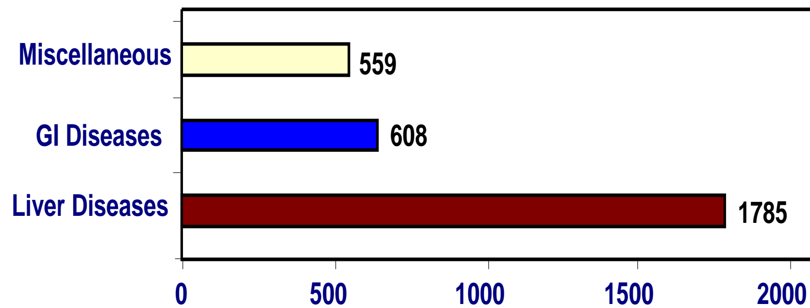
GI & Liver Clinic 2001

Total patients: 5249



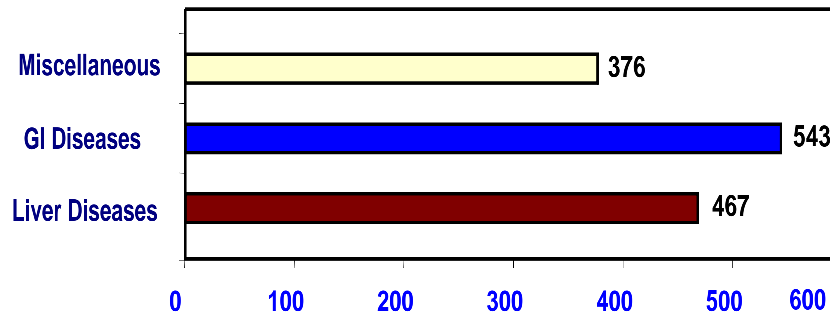
GI & Liver Clinic 2000

Total patients: 2952



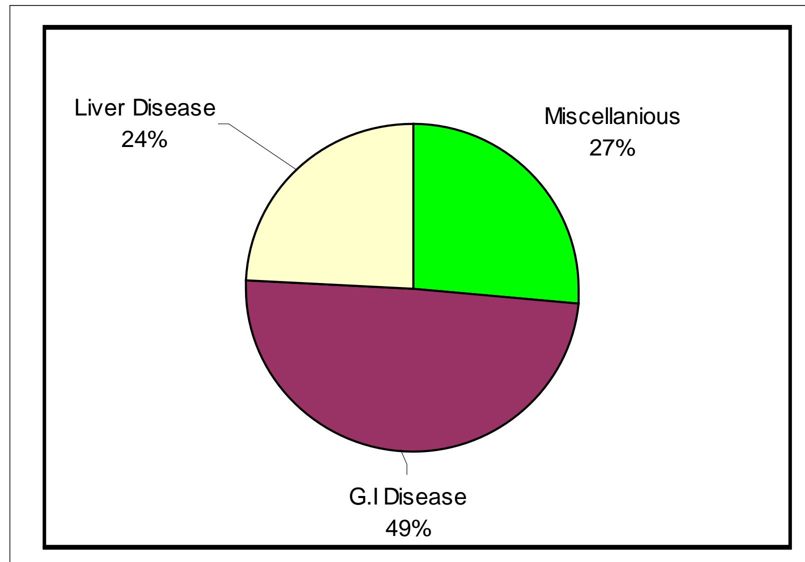
GI & Liver Clinic1999

Total patients:1386



GI & Liver Clinic 2005

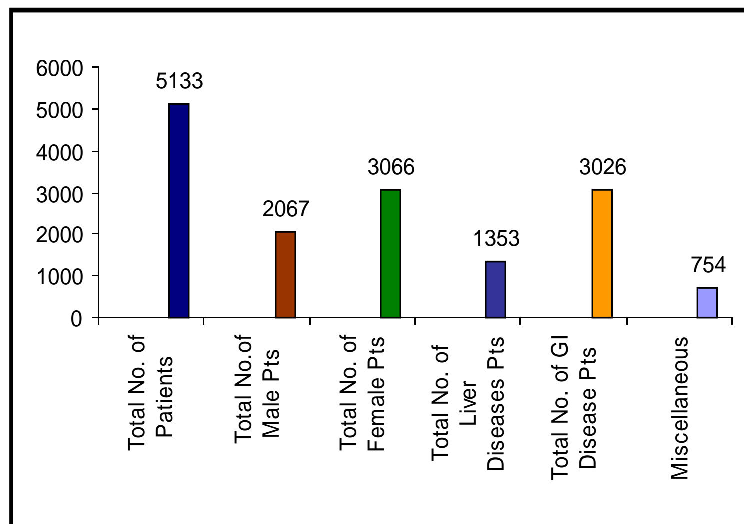
Total Patients (General OPD) : 12799
Male: 5530 Female: 7269
Total Patients (Liver Clinic): 3087
Male :1169 Female: 1918



*GI & Liver data of HFH is from January- August 2005

GI & LIVER CLINIC 2002

Total Patients : 5133

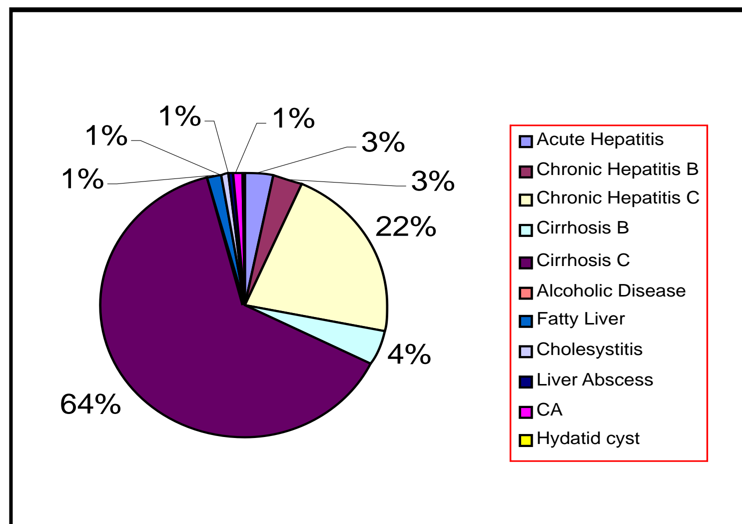


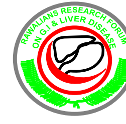
GI & Liver Clinic 2002

LIVER DISEASES PATTERN

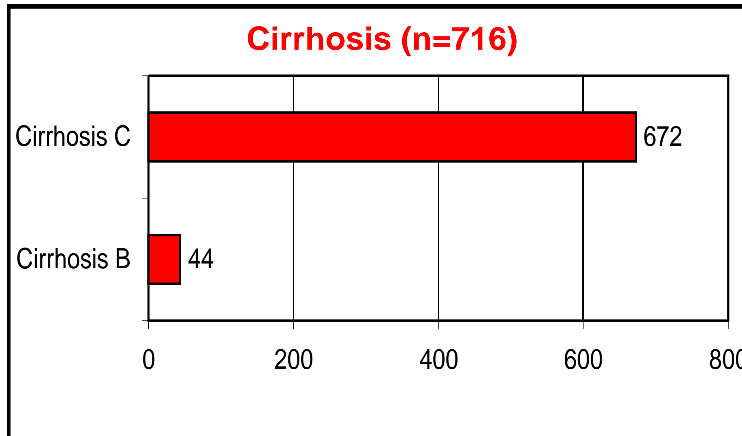
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	Total
Acute Hepatitis	2	1	1	0	2	10	5	6	2	5	0	0	**34**
Chronic Hepatitis B	2	0	3	2	3	0	1	8	6	1	4	6	**36**
Chronic Hepatitis C	20	19	24	8	15	17	15	21	27	20	27	18	**231**
Cirrhosis B	3	2	4	5	5	5	4	2	4	0	5	5	**44**
Cirrhosis C	74	51	48	54	43	78	32	84	43	53	62	50	**672**
Alcoholic Disease	0	0	0	0	0	0	0	0	0	0	0	1	**1**
Fatty Liver	0	0	2	1	0	1	2	1	0	2	1	1	**11**
Cholesystitis	0	0	2	0	0	2	3	0	0	0	2	0	**9**
Liver Abscess	0	0	0	1	1	0	2	0	1	0	1	1	**7**
HCC	1	0	2	2	0	0	1	0	2	0	1	2	**11**
Hydatid cyst	0	0	1	0	0	0	0	0	0	1	0	0	**2**

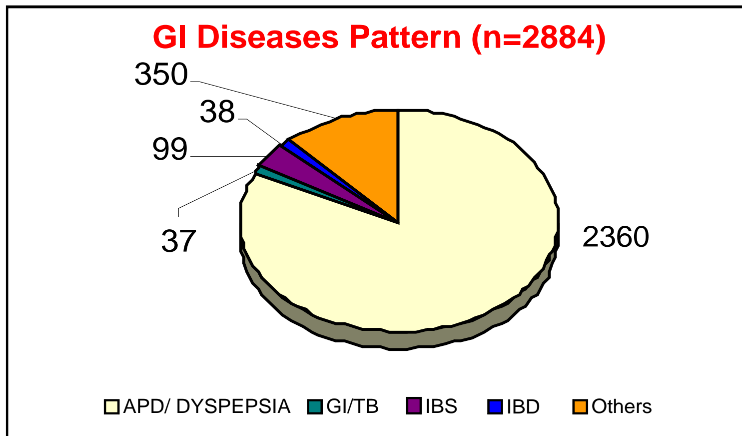
LIVER DISEASES PATTERN

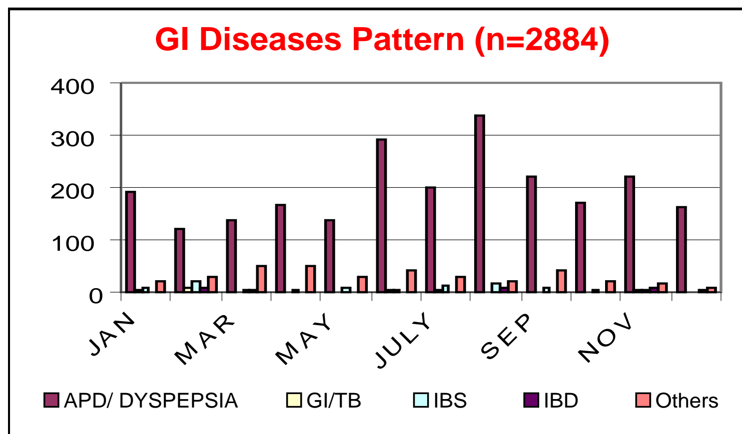




GI & Liver Clinic 2002

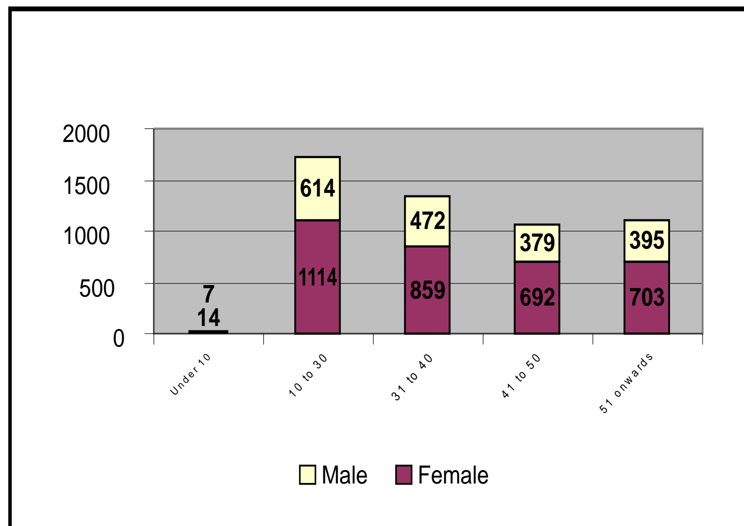




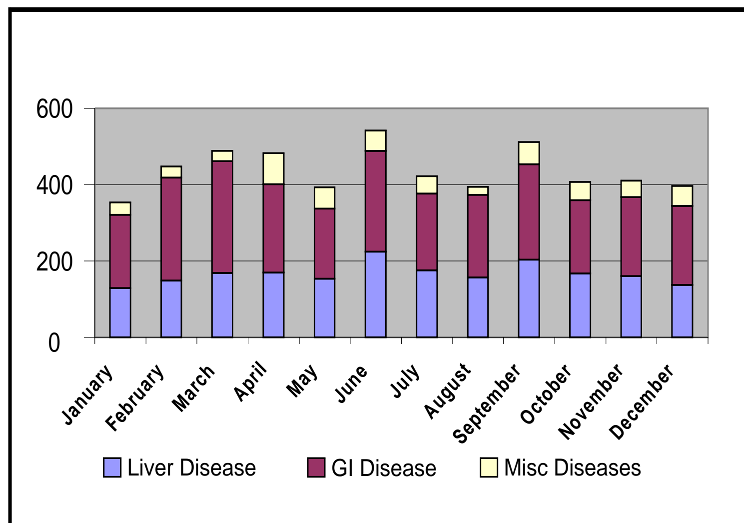


GI & LIVER CLINIC 2001

Age & Sex Distribution (n=5249)

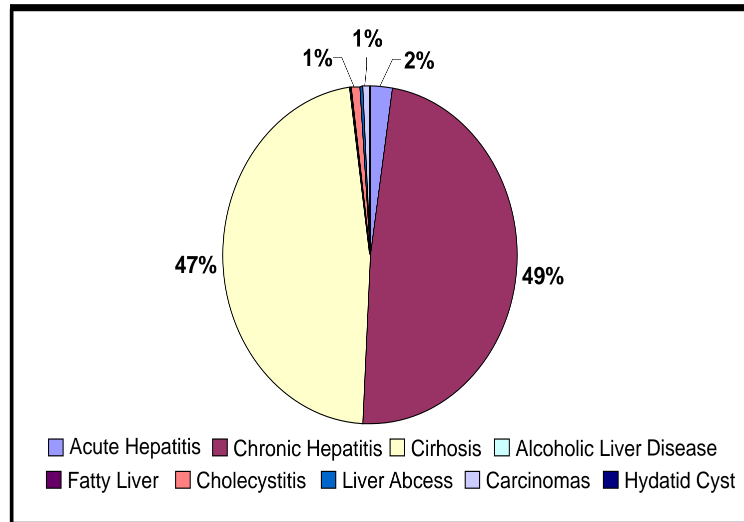


Monthwise Disease Pattern (n=5249)



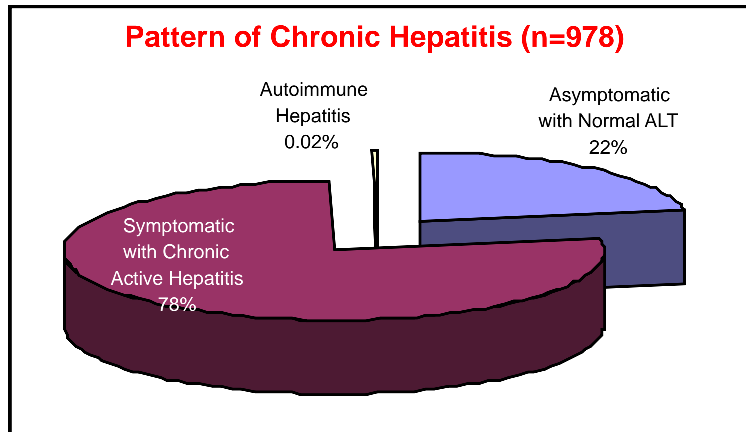
GI & LIVER CLINIC 2001

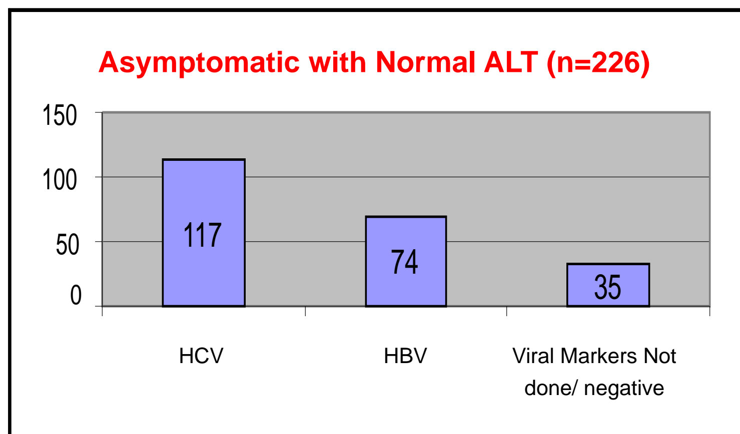
Pattern of Liver Diseases: n=1996 (38%)

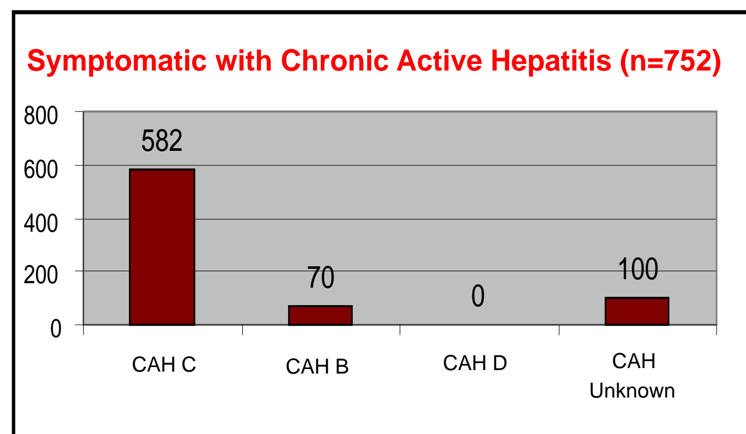


Acute Hepatitis	**39**	**(2.5%)**
Hepatitis A	10	(25.6%)
Hepatitis E	19	(48.8%)
Not Known	10	(25.6%)
Chronic Hepatitis	**978**	**(49%)**
◆ Asymptomatic with Normal ALT (Carrier)	226	(23.1%)
HCV	117	(51.7%)
HBV	74	(32.7%)
Viral Markers Negative/Not done	35	(15.6%)
◆ Symptomatic with Chronic Active Hepatitis	752	(76.9%)
CAH C	582	(77.3%)
CAH B	70	(9.3%)
CAH D	0	(0%)
CAH (Unknown)	100	(13.4%)

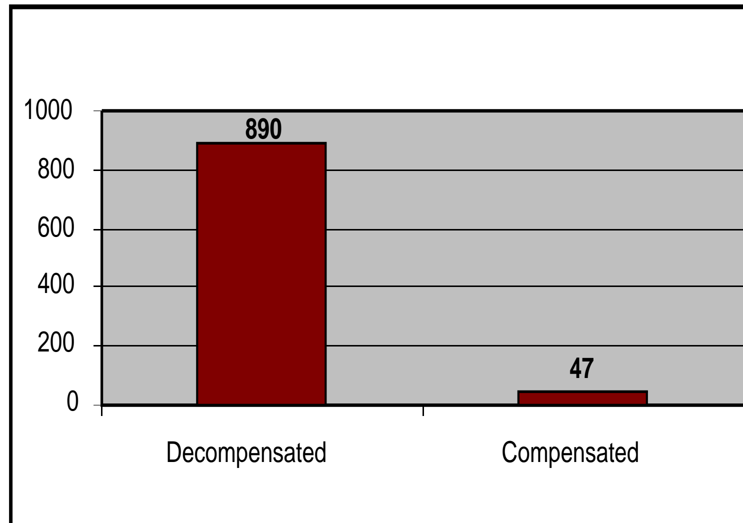
GI & LIVER CLINIC 2001



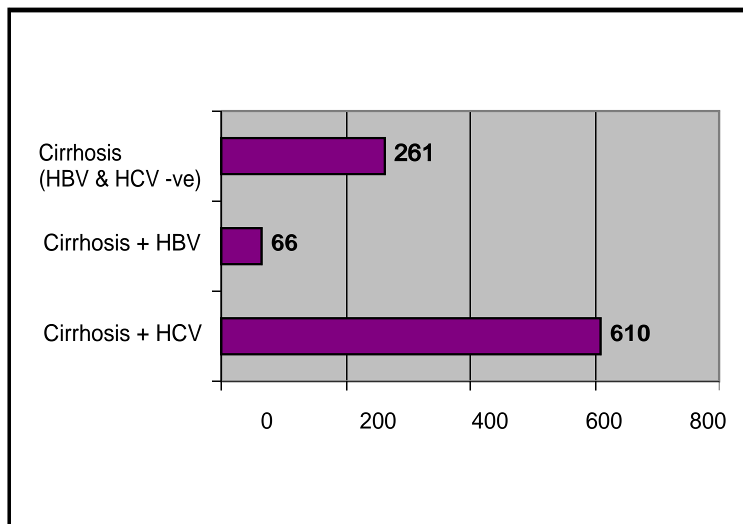




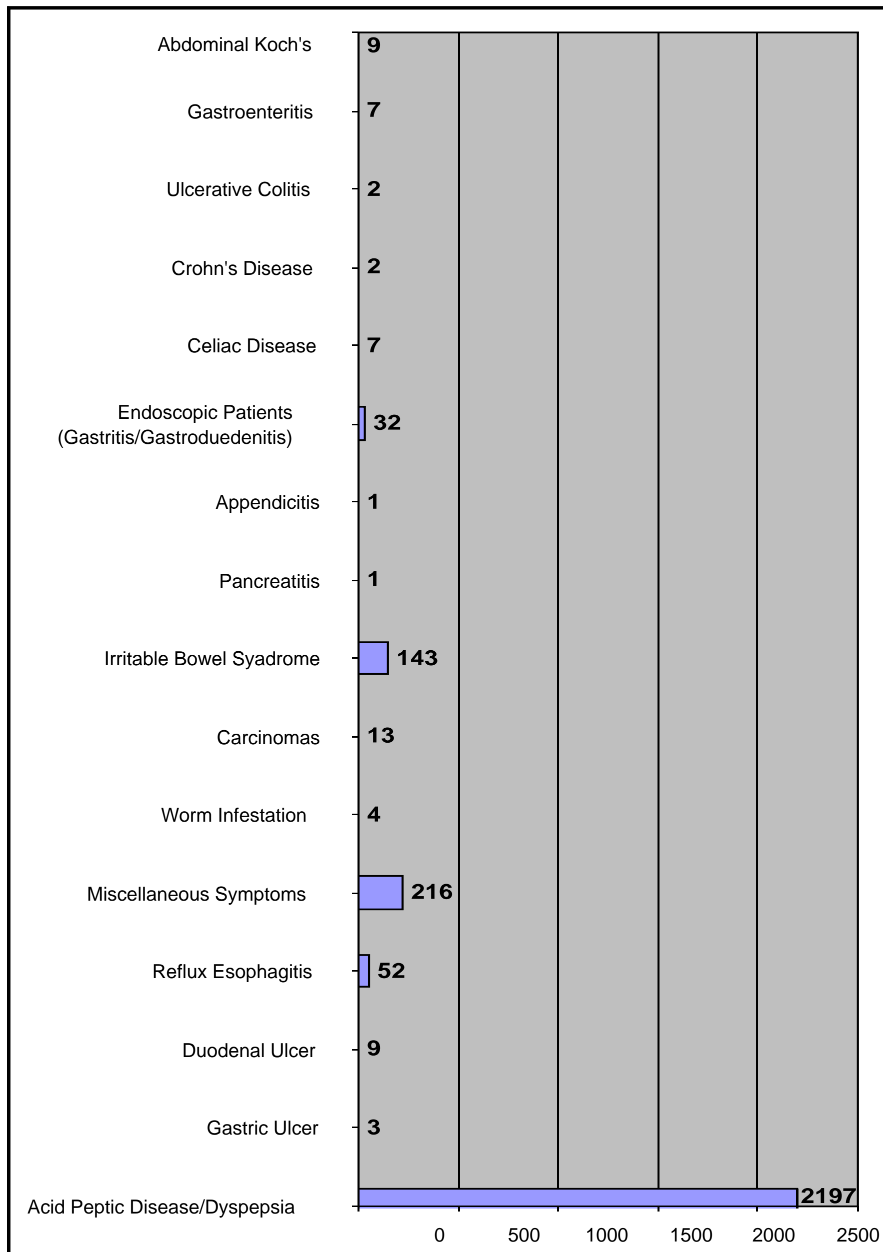
Pattern of Cirrhosis (n=937)



Pattern of Cirrhosis (n=937)

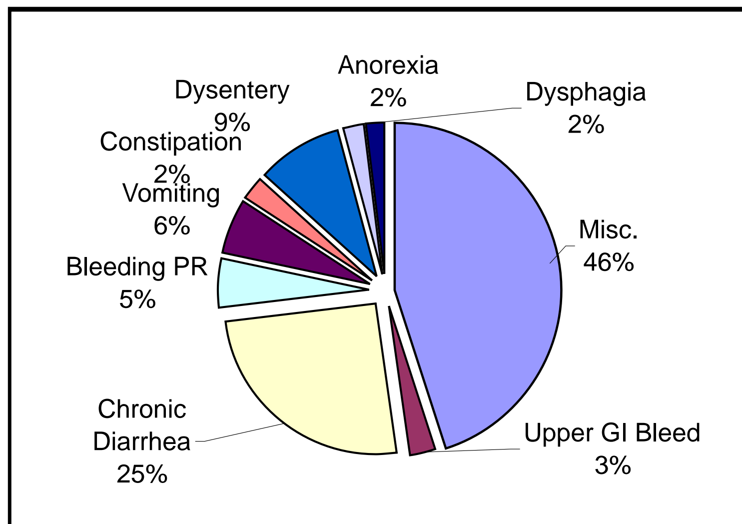


Pattern of GI Diseases: n=2706 (51.5%)



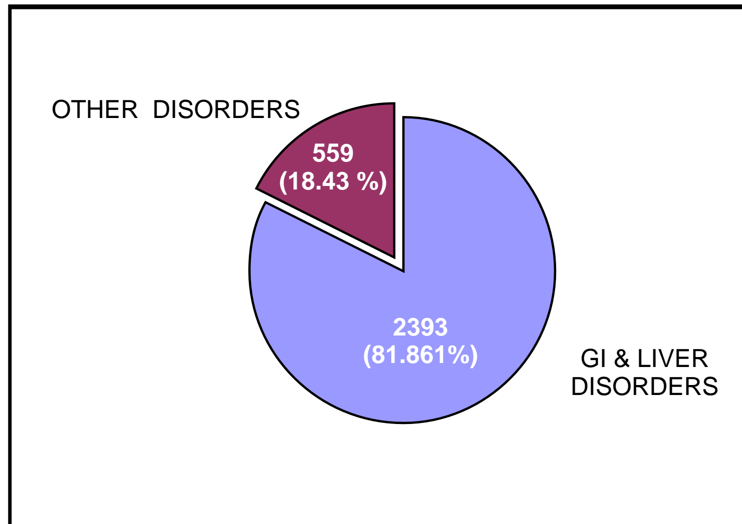
PATTERN OF GI DISEASES

Acid Peptic Disease/Dyspepsia	**2706(81 .5%)**
Gastric Ulcer	**3 (0.1%)**
Duodenal Ulcer	**9 (0.3%)**
Reflux Esophagitis	**52 (2%)**
Worm Infestation	**4 (0.1%)**
CARCINOMAS	**13 (0.4%)**
CA Esophagus	10
CA Stomach	0
CA Intestine	0
CA Rectum	0
CA Pancreas	3
Miscellaneous Symptoms	**216 (8.33%)**
Upper GI Bleed	6
Chronic Diarrhea	55
Bleeding PR	11
Vomiting	13
Constipation	5
Dysentery	20
Anorexia	5
Dysphagia	4
Miscellaneous	97

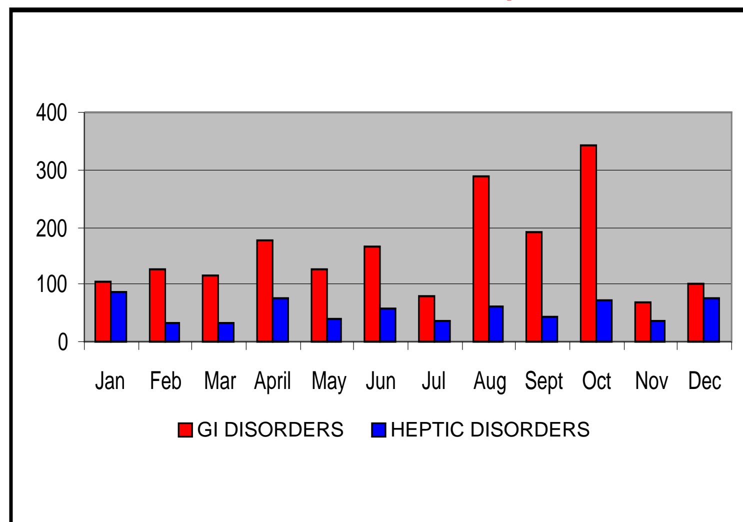


GI & LIVER CLINIC 2000

Total Patients : 2952

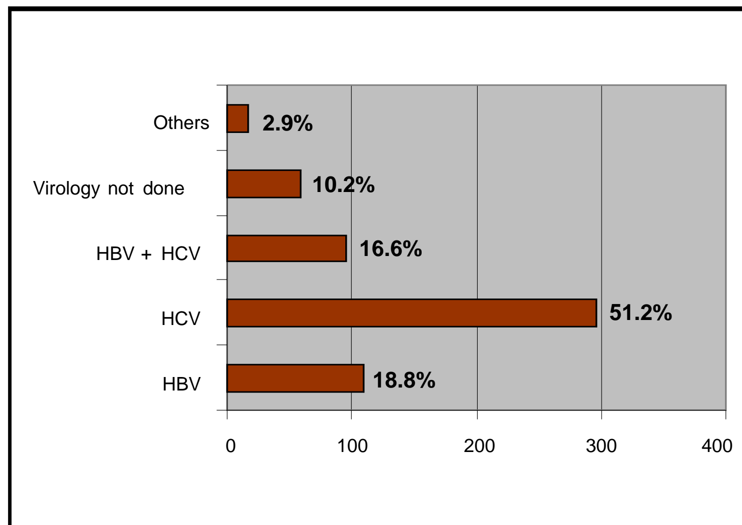


Monthwise Distribution GI & Hepatic Disorder

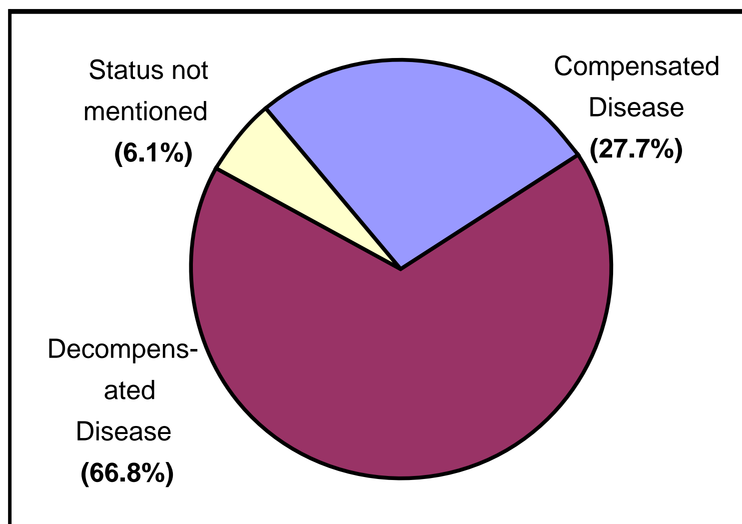


PATTERN OF ETIOLOGICAL PREVALENCE

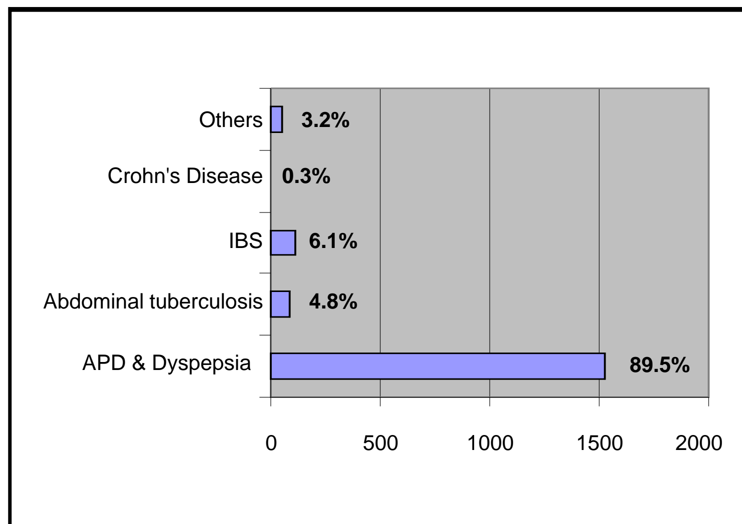
Total Patients: 1785



PATTERN OF CIRRHOSIS

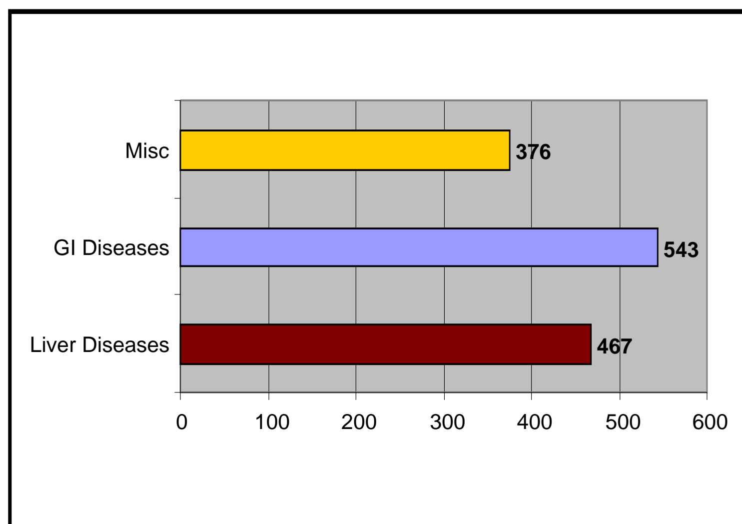


PATTERN OF GI DISORDERS (N=645)



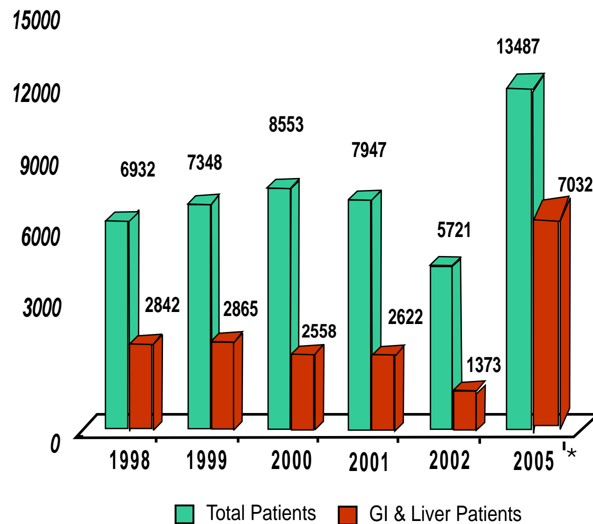
GI & LIVER CLINIC 1999

Pattern Of Diseases: (n=1386)

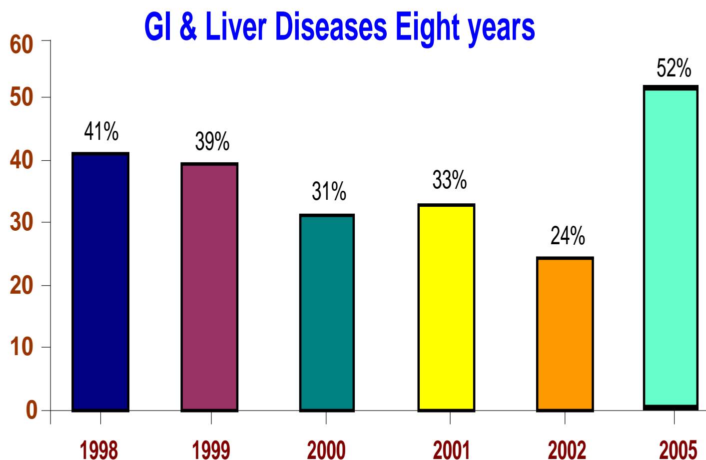


Emergency Department Audit
2005-1998

GI & Liver diseases have received a major share (1/3) of the total patients who presented in the emergency department of Holy Family Hospital, Rawalpindi. There were maximum patients in 2000 while GI & Liver diseases continued to decline over years. Data of 2005 throughly documented through SPSS previous years it was manual so, under recorded.



* Emergency data of HFH is from Jaunary- August 2005

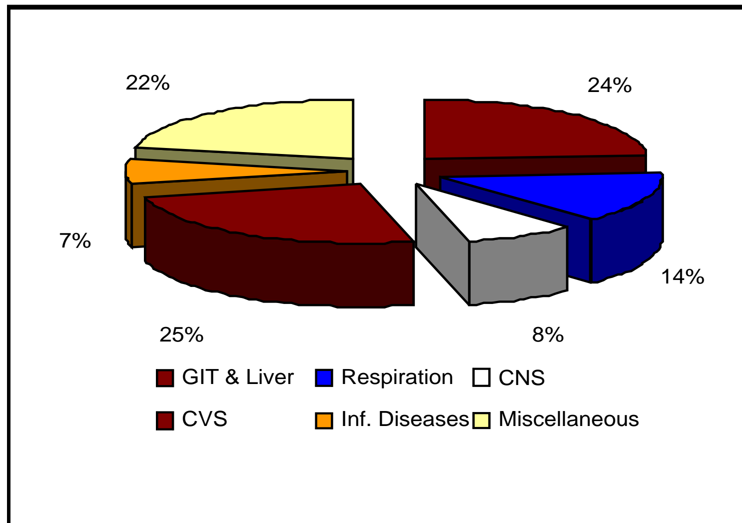


Liver related common emergencies were variceal bleeding, spontaneous bacterial peritonitis hepatorenal syndrome.

ER DISEASE PATTERN 2005*

Total Patients : 13487

GI & Liver Patients: 7032 Males: 7596 Females: 5891

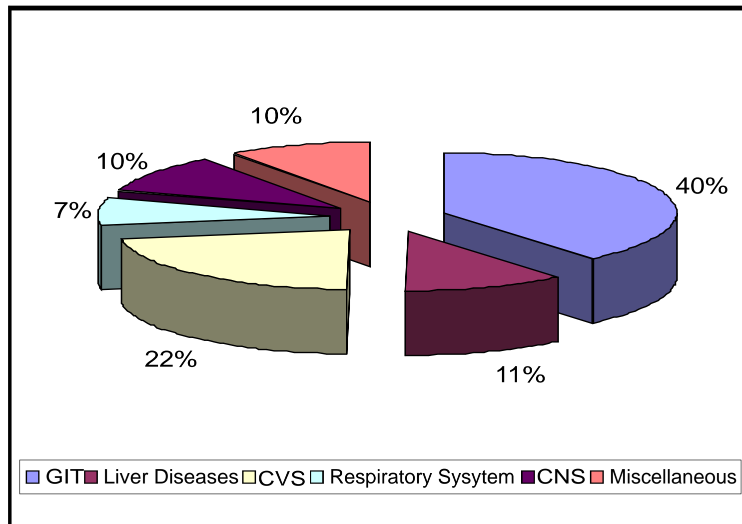


*** ER data of HFH is from Jaunary- August 2005**

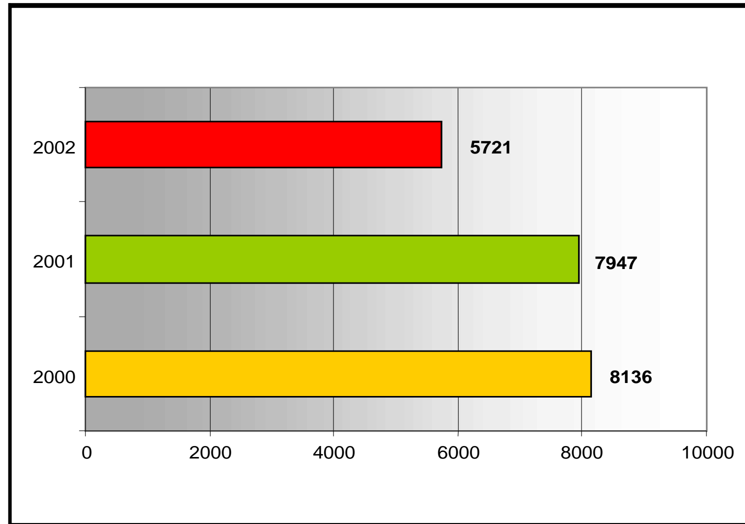
DISEASE PATTERN 2002

Total patient seen: 5721

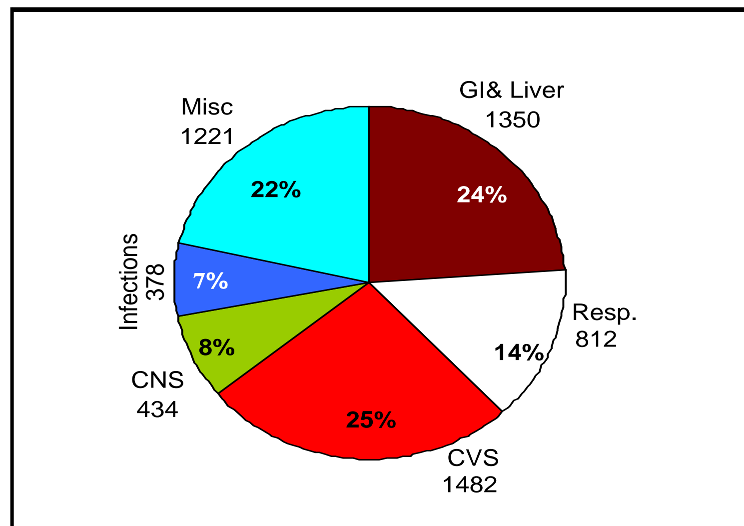
Males 2885 (50.4%) Females 2836 (49.5%)

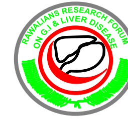


Comparison with previous years



SYSTEM WISE DETAILS 2002

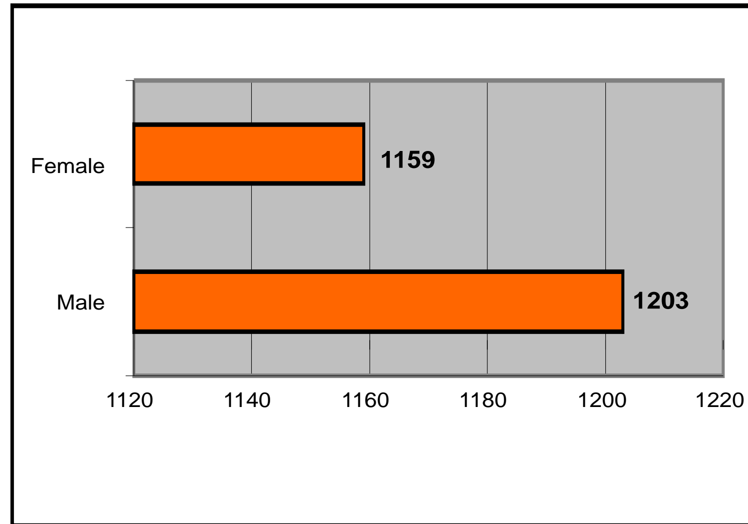




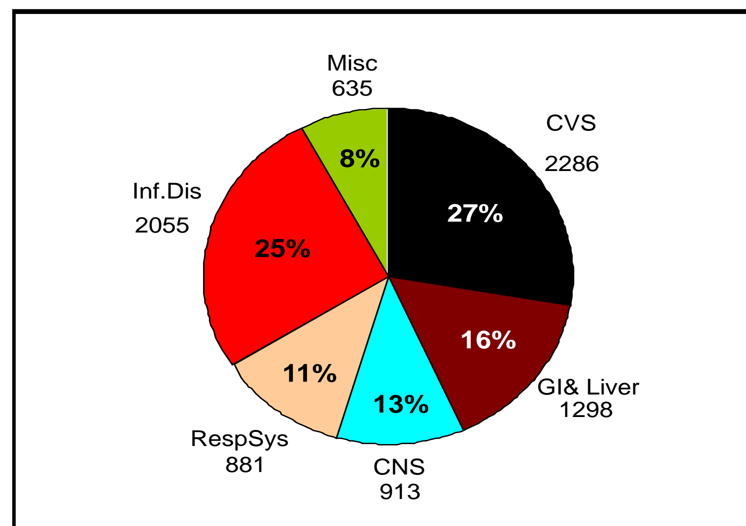
DISEASE PATTERN 2001

Total patient: 7941, Admissions: 2362

Males 1203 (51%) Females 1159 (49%)



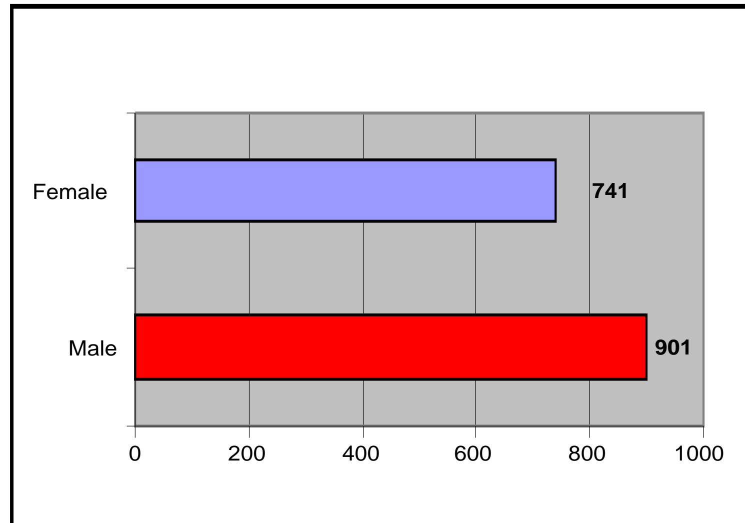
SYSTEM WISE DETAILS 2001



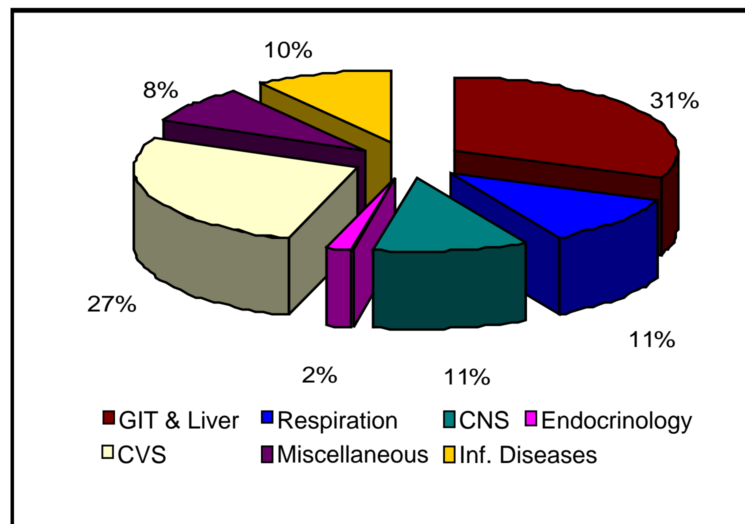
DISEASE PATTERN 2000

Total patient: 8253, Admissions: 1642

Males 901 (55%) Females 741 (45%)

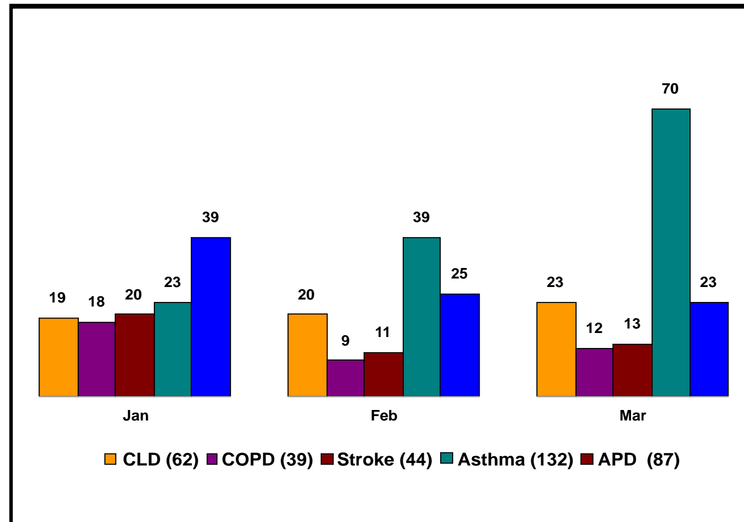


DISEASE PATTERN OF EMERGENCY DEPARTMENT



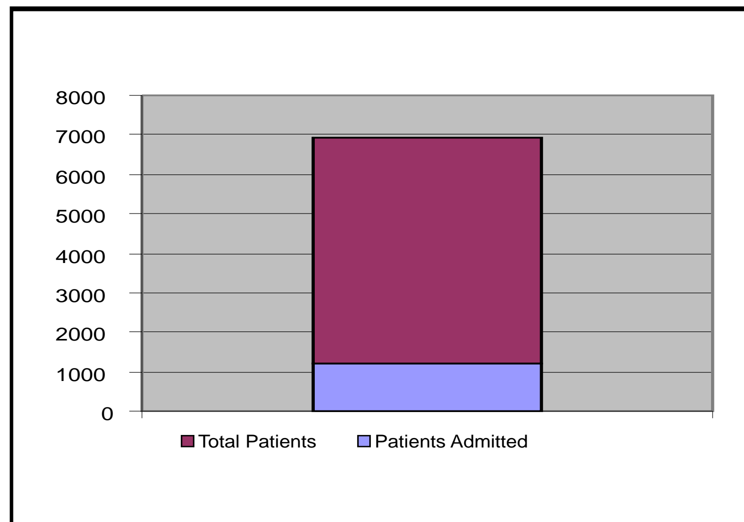
DISEASE PATTERN 1999

(Incomplete data available)



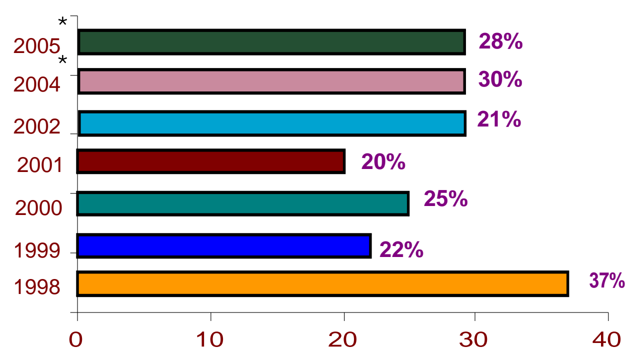
DISEASE PATTERN 1998

Total patient: 6932, Admissions: 1185

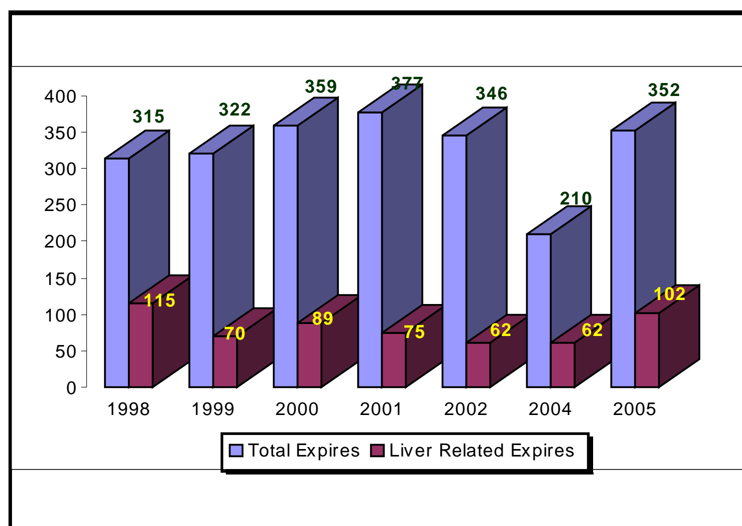


Mortality Audit
2005-1998

Five year mortality analysis shows that death rate has decreased from 37% to 29%, although the lowest mortality rate was in 2001(20%).
The mortality rate among female remained lower throughout five years. The commonest cause of mortality was liver related deaths due to hepatic encephalopathy, variceal bleed, hepatorenal syndrome and hepato-cellular carcinoma.



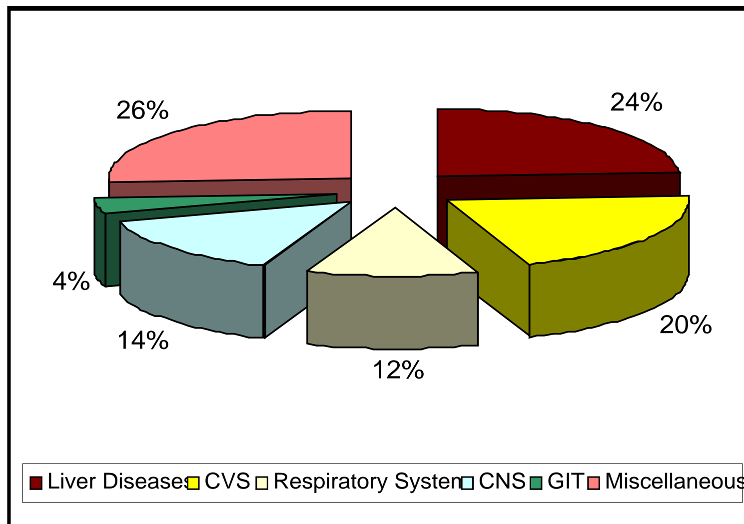
*Mortality data of HFH is from January- August 2005
*Mortality data of HFH is from July - December August 2004



*Mortality data of HFH is from January- August 2005
*Mortality data of HFH is from July - December August 2004

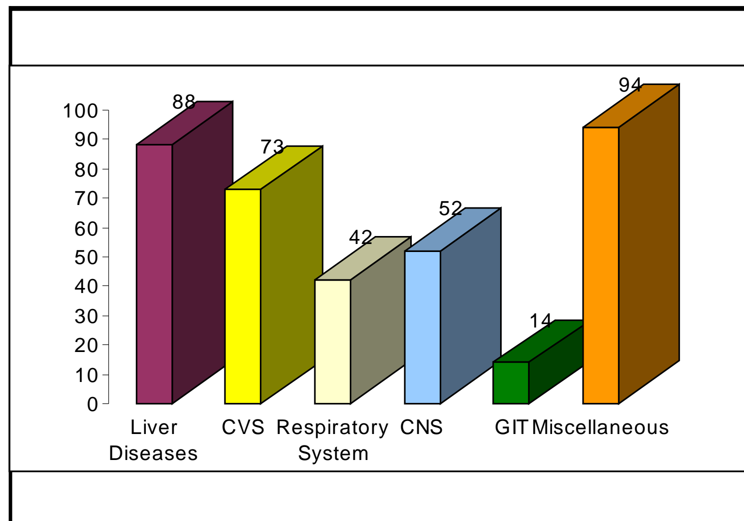
MORTALITY AUDIT 2005*

Total Expires: 352
GI & Liver Patients: 102 Males: 196 Females: 156



MORTALITY AUDIT 2005*

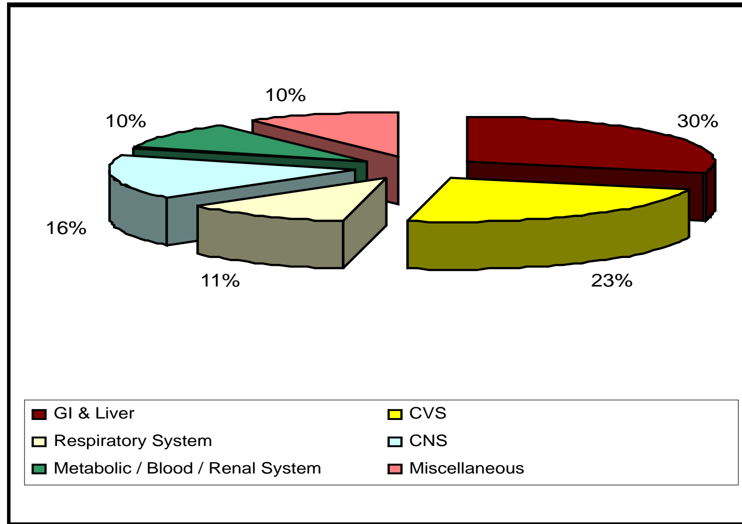
Total Expires: 352
GI & Liver Patients: 102 Males: 196 Females: 156



***Mortality data of HFH is from January- August 2005**

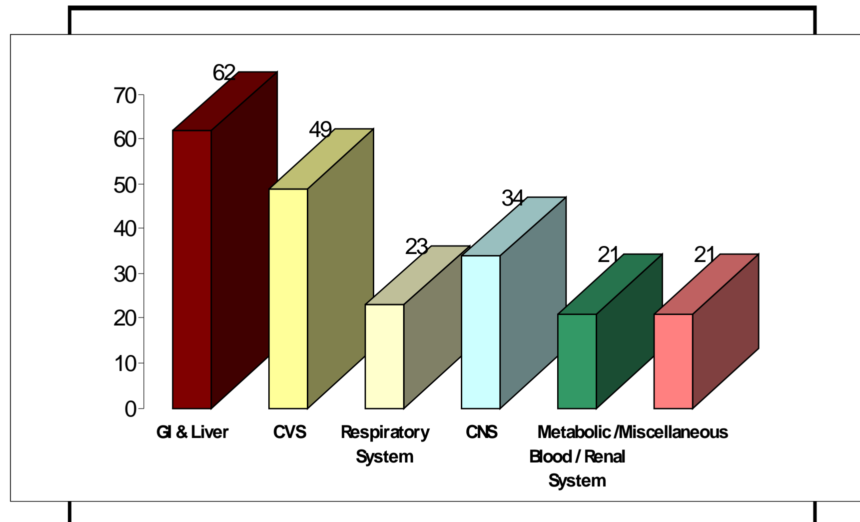
MORTALITY AUDIT 2004*

Total Expires: 210
GI & Liver Patients: 62 Males: 108 Females: 102



MORTALITY AUDIT 2004*

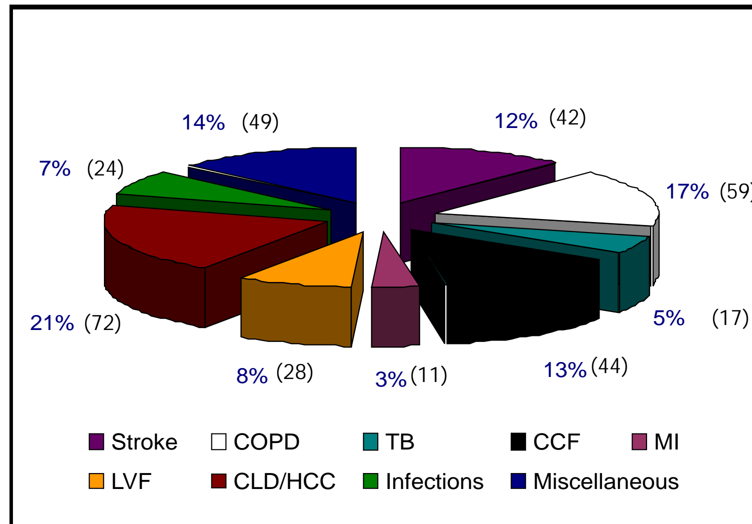
Total Expires: 210
GI & Liver Patients: 62 Males: 108 Females: 102



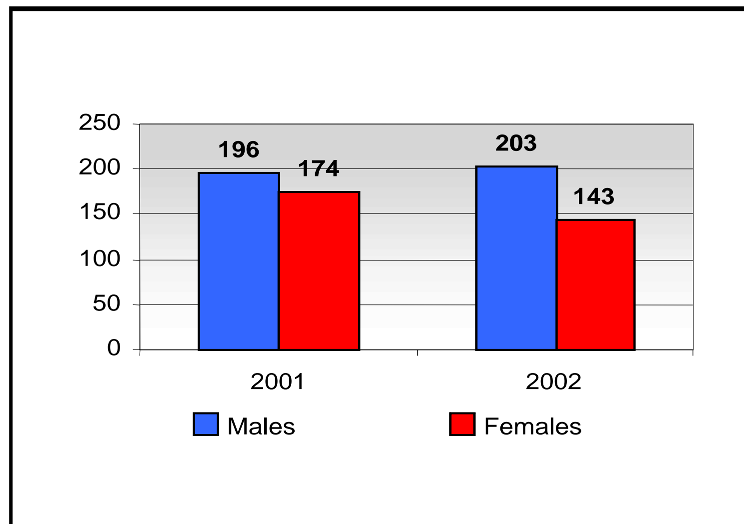
*Mortality data of HFH is from July- December 2004

MORTALITY AUDIT 2002

Total Expires: 346
GI & Liver Patients: 62 Males: 180 Females: 166



COMPARISON BETWEEN 2001 & 2002



Cirrhosis Mortality

Total Cirrhotics = 62 (Male 39 + Female 23)

Hepatic Encephalopathy = 33 (Male 18 + Female 15)

Precipitating Factors

Upper GI Bleed = 16, Constipation & Hypoglycemia = 2, SBP= 5,

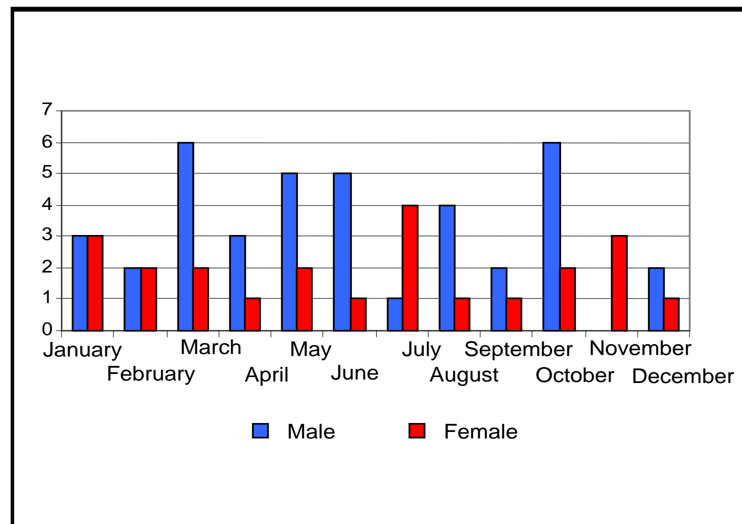
Infections = 1, Respiratory tract infection = 4, Alcoholism 1

End Stage Liver Disease + Multiorgan Failure = 11 Not known = 5

Viral Serology

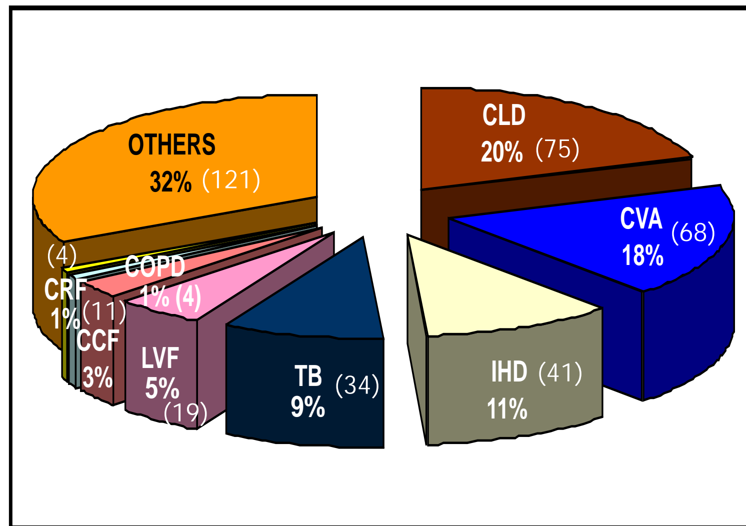
HCV	31
HBV	1
Both (HCV, HBV)	1
Not known	27

Sex Distribution for mortalities due to Cirrhosis



MORTALITY AUDIT 2001

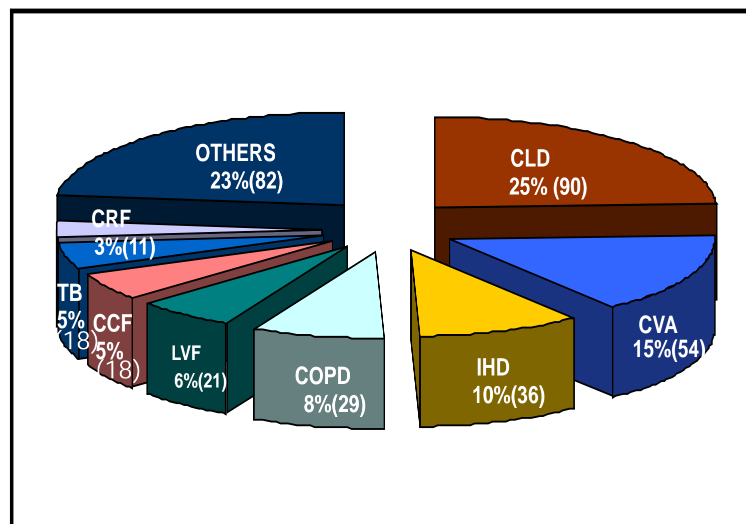
Total Expiries: 377



CLD has the highest Percentage among the various causes of mortality

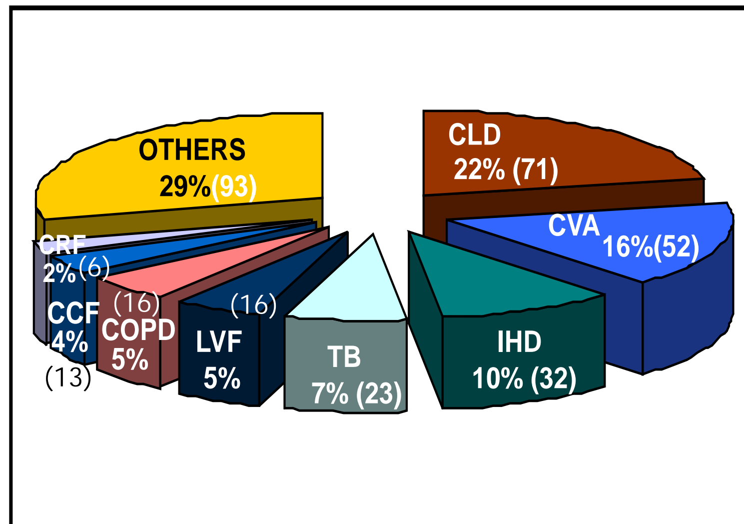
MORTALITY AUDIT 2000

Total Expiries: 359



MORTALITY AUDIT 1999

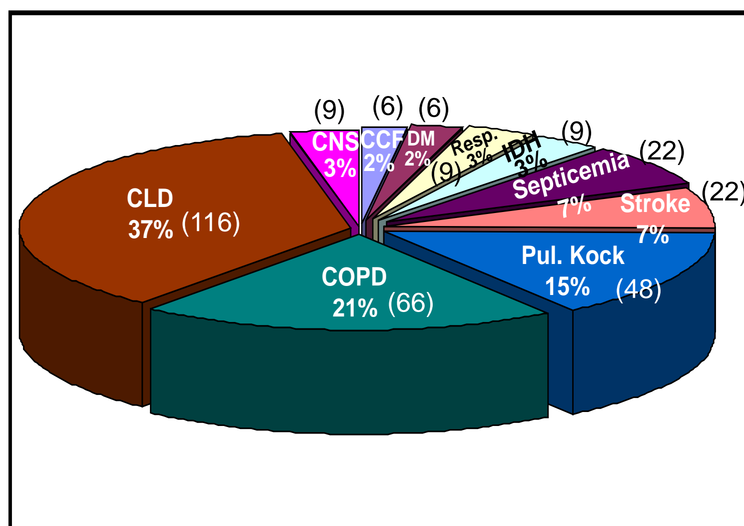
Total Expiries: 322



CLD has the highest Percentage among the various cause of mortality

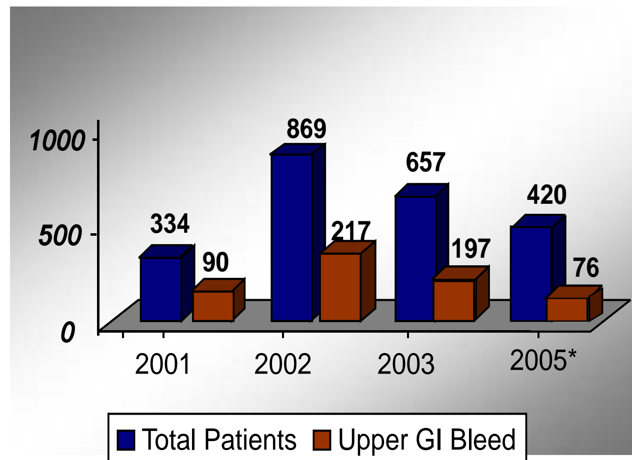
MORTALITY AUDIT 1998

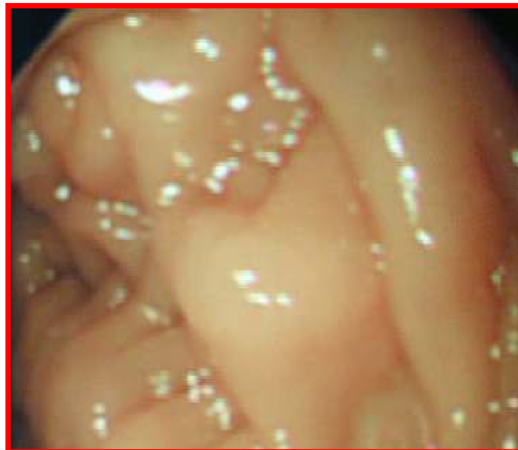
Total Expiries: 313



Endoscopy Department Audit
2003-2001

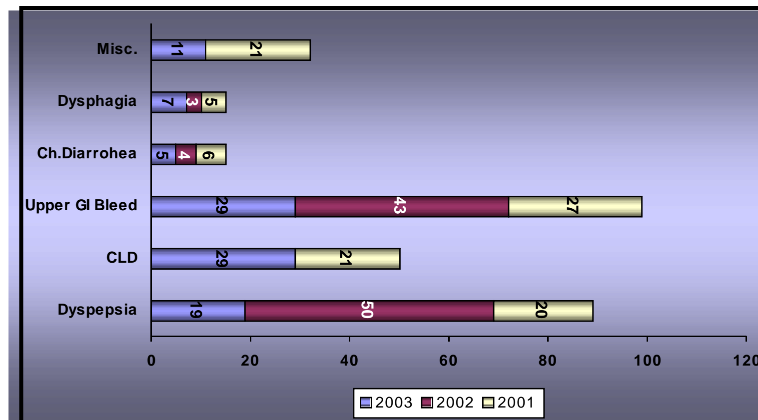
Most common presentation of patients was upper GI bleed in all three years while dyspepsia was also a frequent symptom. However the year 2000 was the peak year with reference to procedure burden.





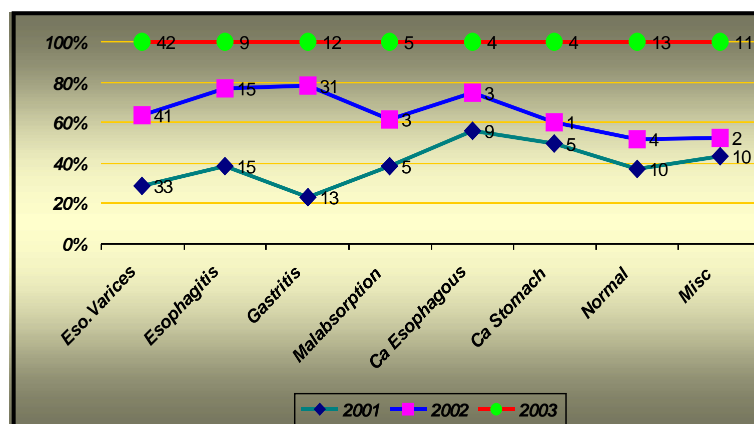
Data revealed that esophageal varices was a major burden on endoscopy department. Other less common but frequent causes are esophagitis and gastritis.

INDICATIONS FOR ENDOSCOPY



The common malignancies diagnosed on endoscpy was Carcinoma Esophagous(total Pt.16) and Carcinoma Stomach (total pt. 10). However approximately 9% patients have normal endoscopic study.

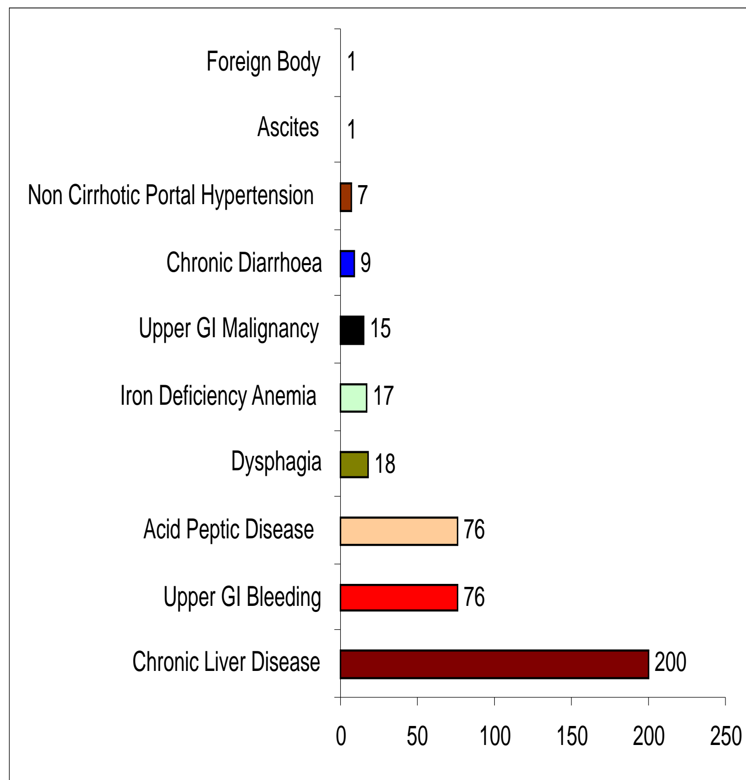
ENDOSCOPIC DISEASE PATTERN



ENDOSCOPY AUDIT 2005*

Total Patients: 420

Male Patients: 242 Female Patients: 178

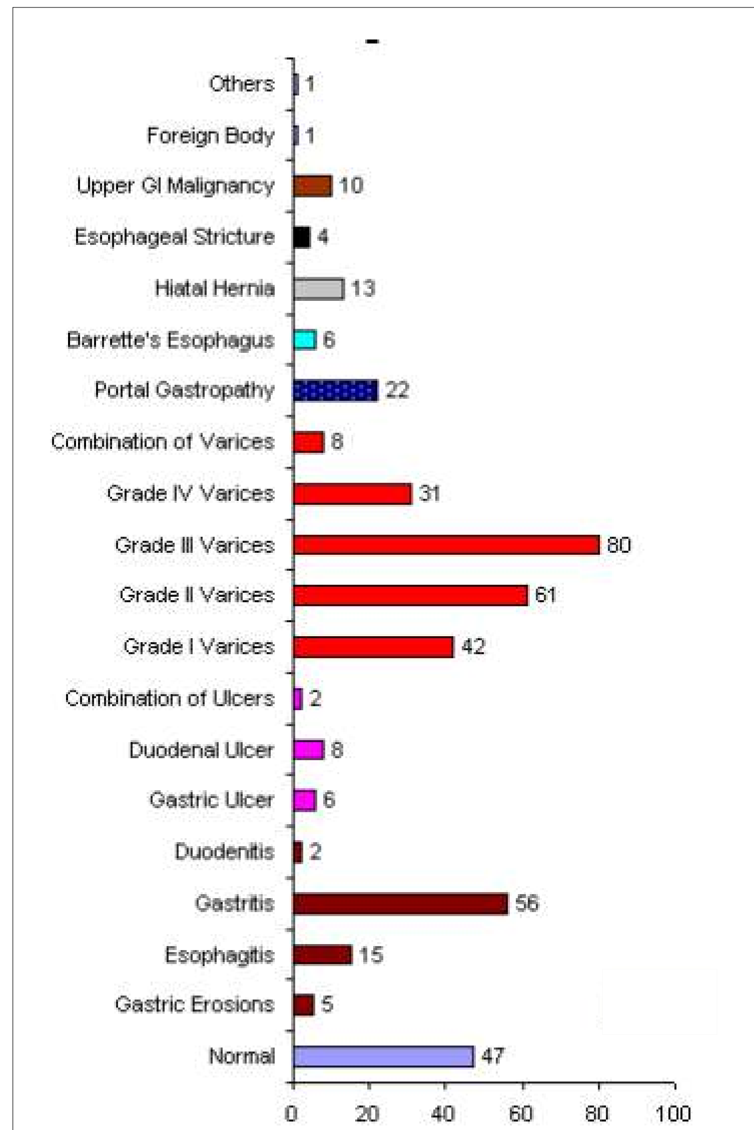


***Endoscopy data of HFH is from January - July 2005**

ENDOSCOPY AUDIT 2005*

Total Patients: 420

Sclerotherapy: 57 Banding: 77 Biopsy: 32

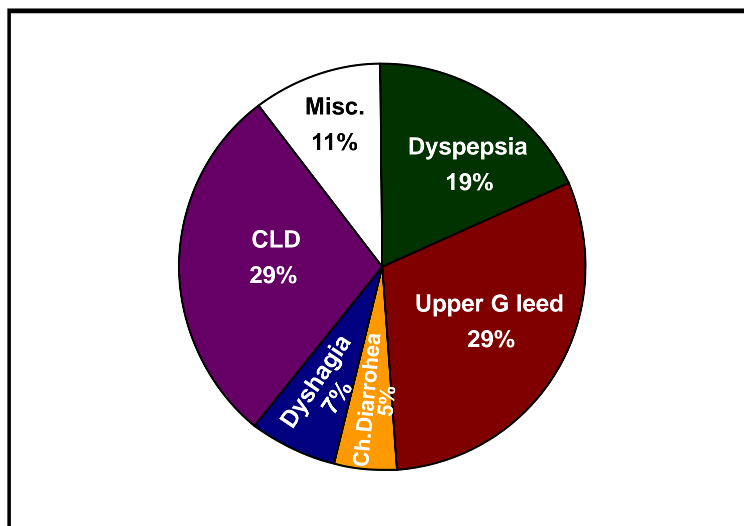


*Endoscopy data of HFH is from January - July 2005

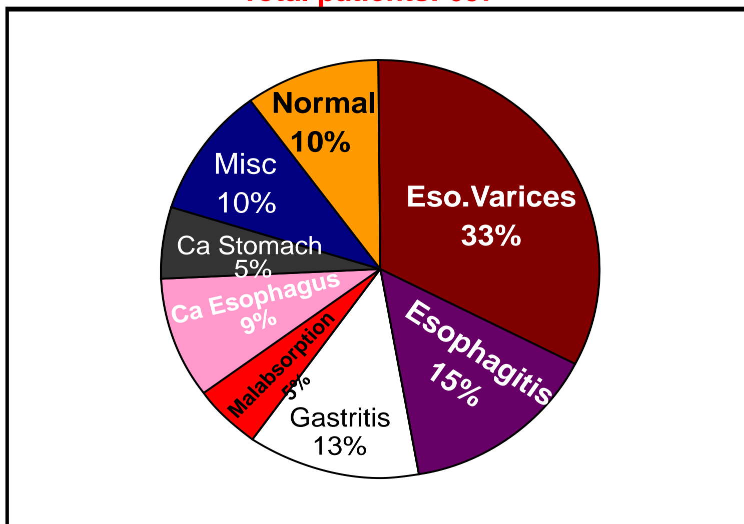
ENDOSCOPY AUDIT 2003

Pattern of Clinical Diagnosis
Total Patients: 657

Pattern of Clinical Diagnosis



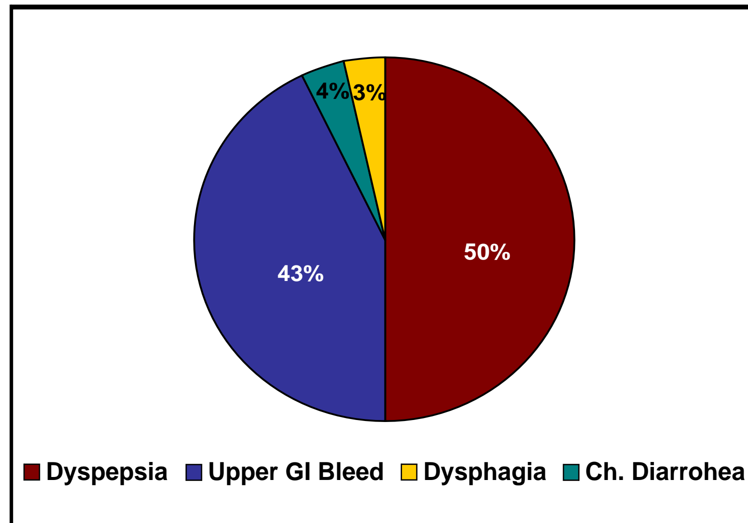
Endoscopic diagnosis
Total patients: 657



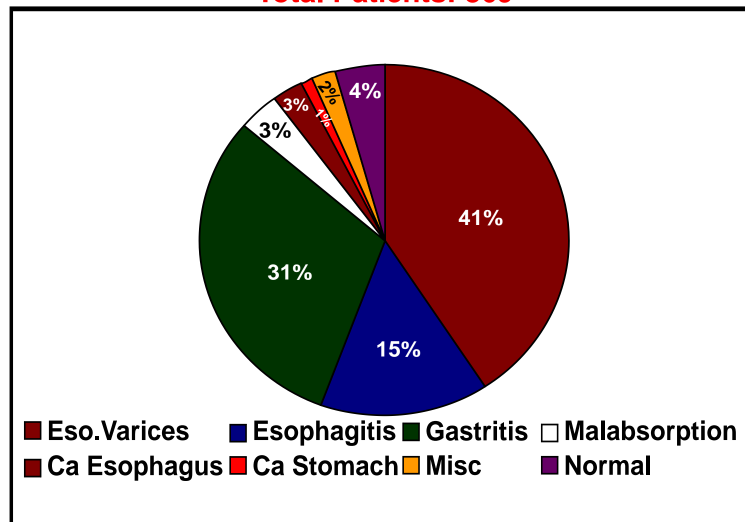
Endoscopy data of HFH January - June 2003

ENDOSCOPY AUDIT 2002

Clinical Diagnosis
Total Patients: 869

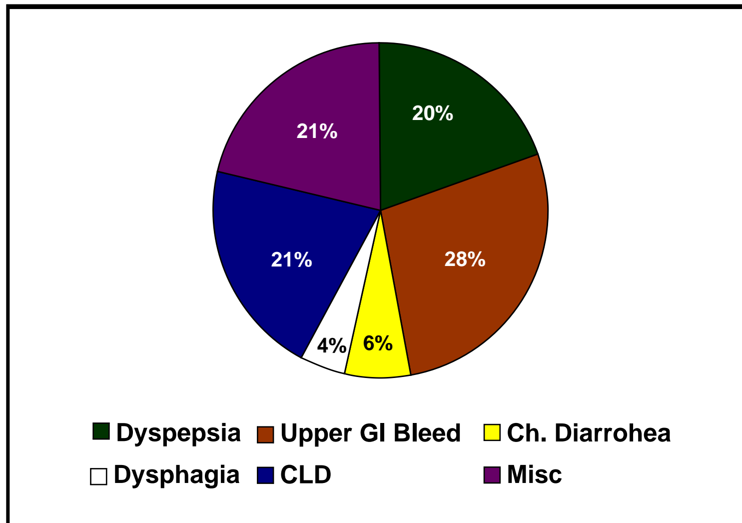


Endoscopic Diagnosis
Total Patients: 869

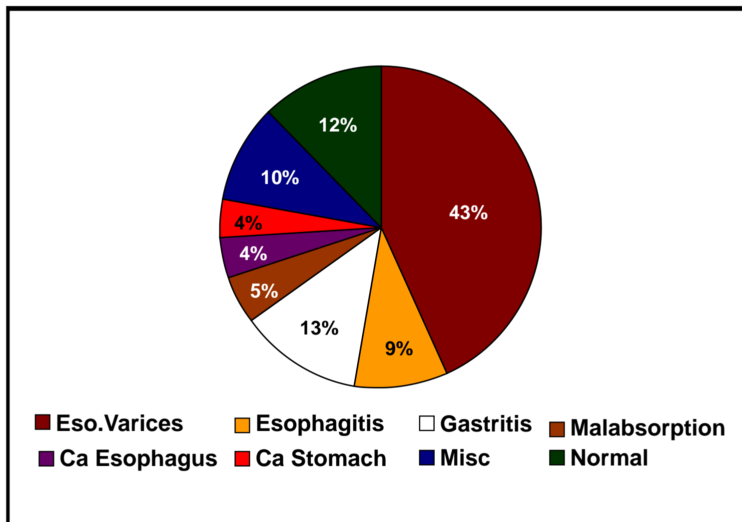


ENDOSCOPY AUDIT 2001

Clinical Diagnosis
Total Patients: 334



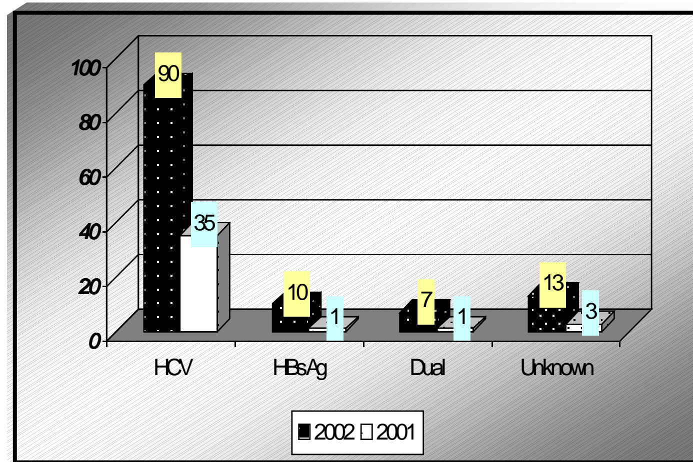
Endoscopic Diagnosis
Total Patients: 334

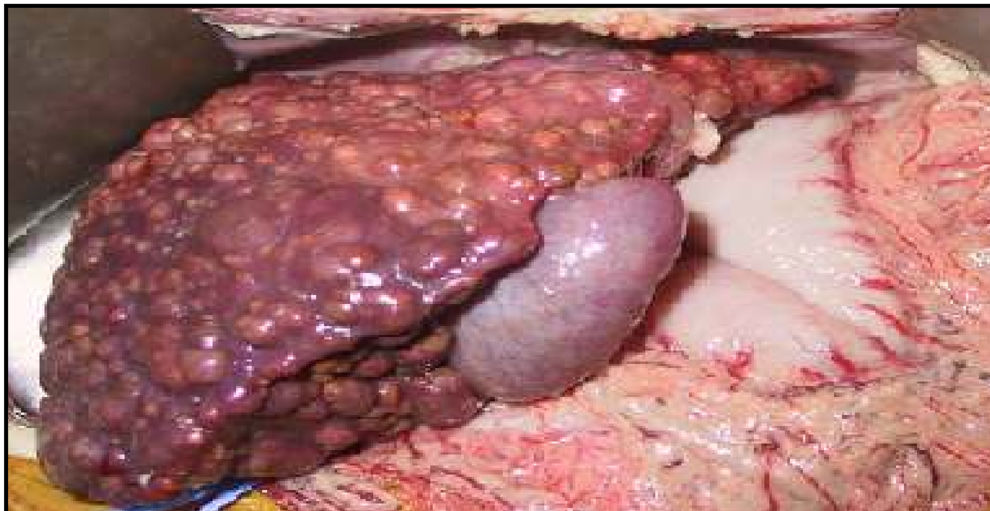


Liver Biopsy Audit

2002-2001

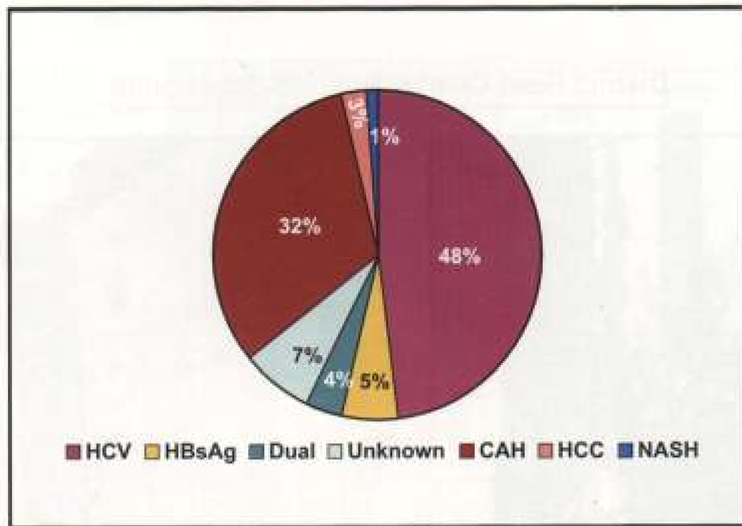
The liver biopsy data shows that HCV related liver diseases were the most common. Liver biopsy data was organized in the late 2001 after procedure room was set up. At the end of 2002, a total of 160 patients were biopsied.





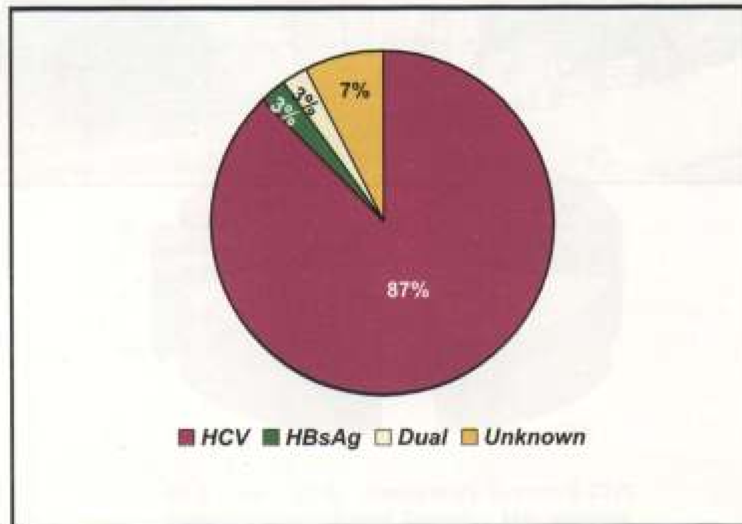
LIVER BIOPSY AUDIT 2002

Total patients: 120



LIVER BIOPSY AUDIT 2001

Total patients: 40

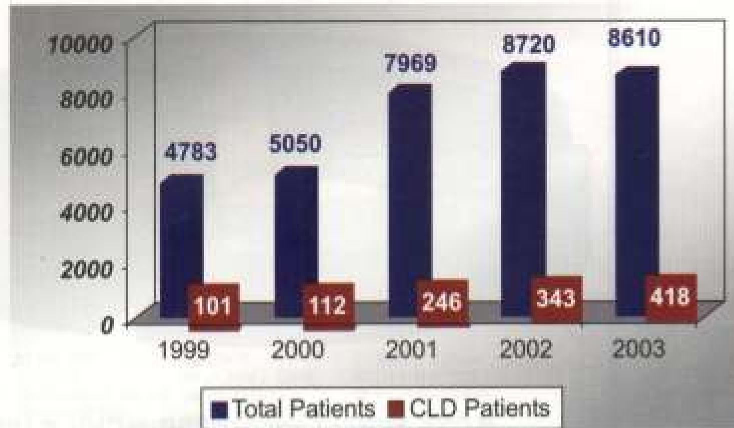


District Head Quarter Hospital, Rawalpindi

Emergency Department Audit

2003-1999

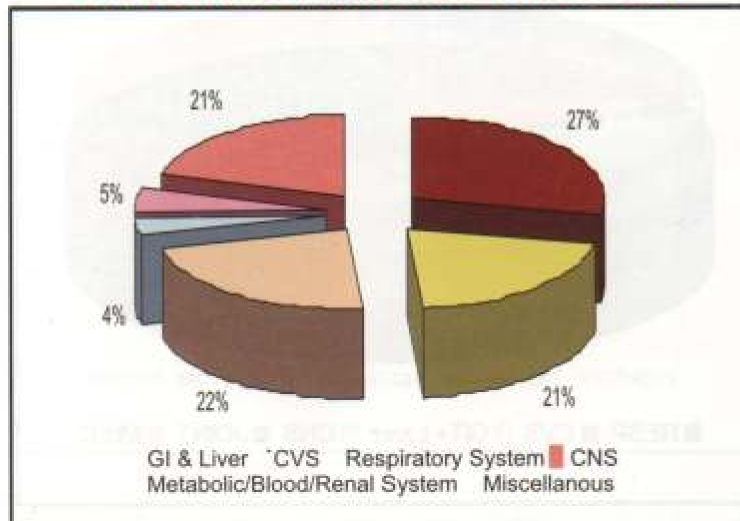
Liver diseases in District Head Quarter Hospital, Rawalpindi also showed increasing trend. As more patients are admitted, liver disease becomes more prevalent. While comparing the sex ratio, males were admitted more than females.



ER DISEASE PATTERN 2003

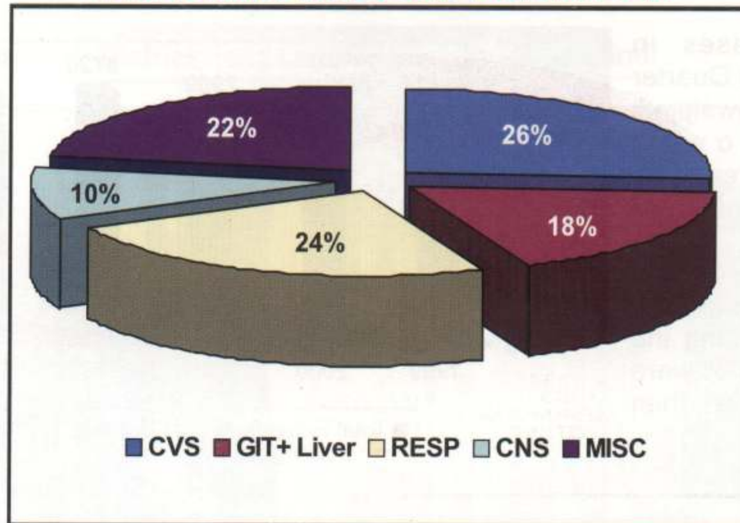
Total Patients : 8610

GI & Liver : 2354 Male: 4525 Female: 4085



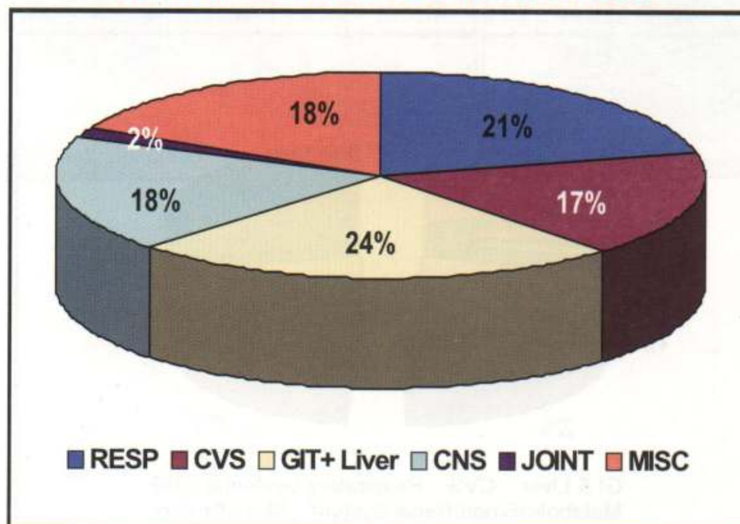
ER DISEASE PATTERN 2002

Total Patients : 8720 CLD Patients : 343



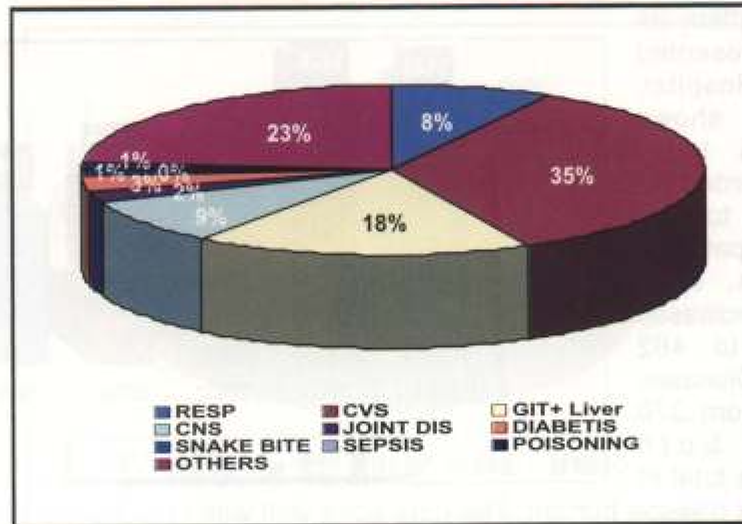
ER DISEASE PATTERN 2001

Total Patients: 7969 CLD Patients: 246



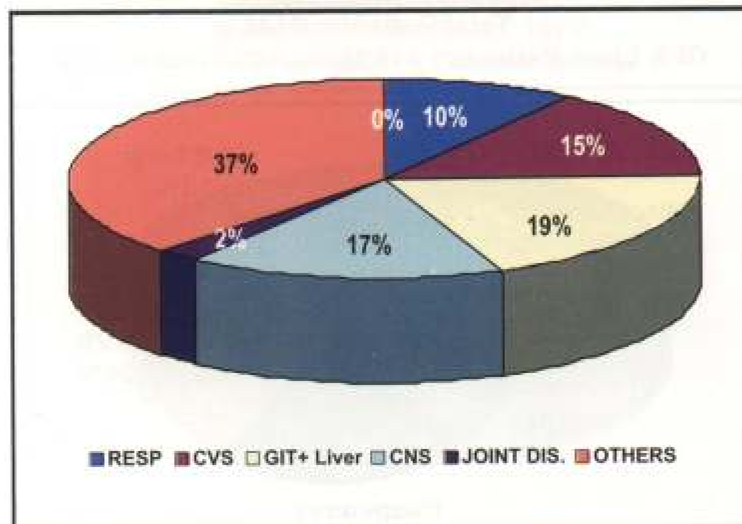
ER DISEASE PATTERN 2000

Total Patients: 5050 CLD Patients: 112



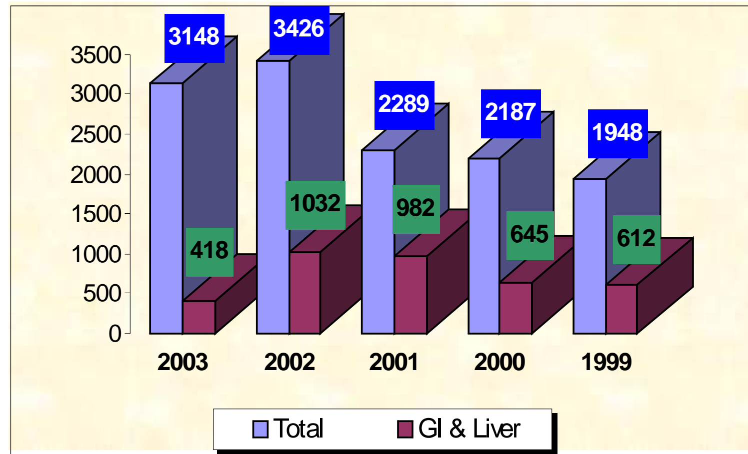
ER DISEASE PATTERN 1999

Total Patients: 4783 CLD Patients: 101



Admission Audit
2002-1999

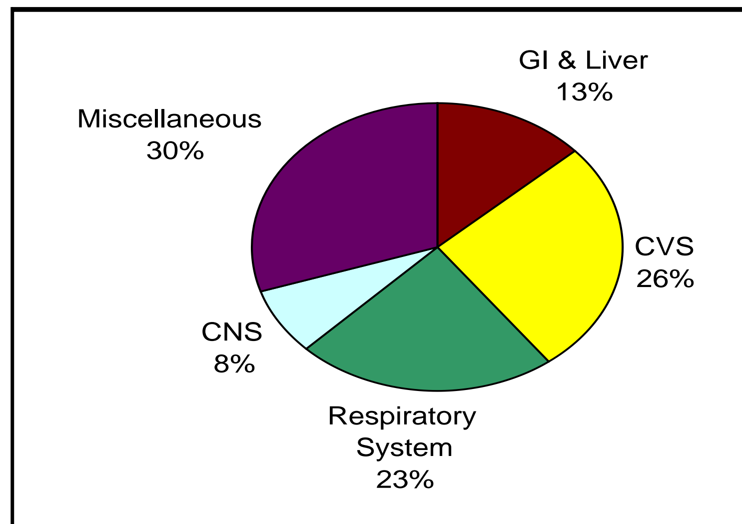
Disease pattern in patients presented to DHQ Hospital, Rawalpindi shows that GI & Liver disease burden is proportional to total number of patients. Over times, Liver Diseases increased from 242 to 462 while GI Diseases increased from 370 to 570, both contribute a total of 20% of total disease burden. The data goes well with Holy Family Hospital data showing significant comparable number of patients with CLD & GI diseases were admitted to DHQ Hospital as compared to other diseases.

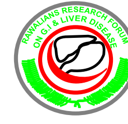


DISEASE PATTERN 2003

Total Patients: 3148

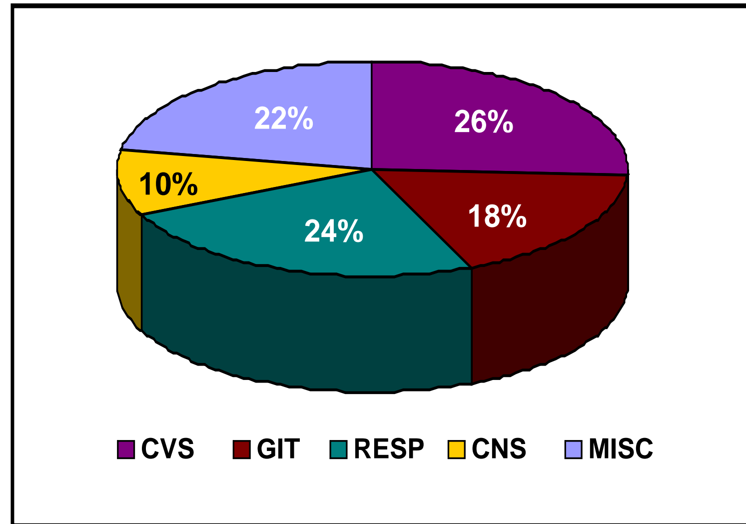
GI & Liver Patients : 418 Male: 199 Female: 219





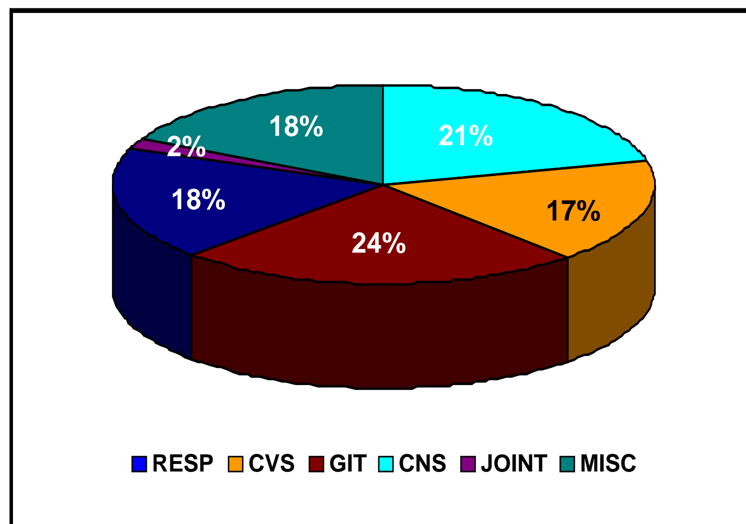
DISEASE PATTERN 2002

Total patients: 3426
Male: 1751 Female: 1675
GI patients: 570 CLD patients: 462



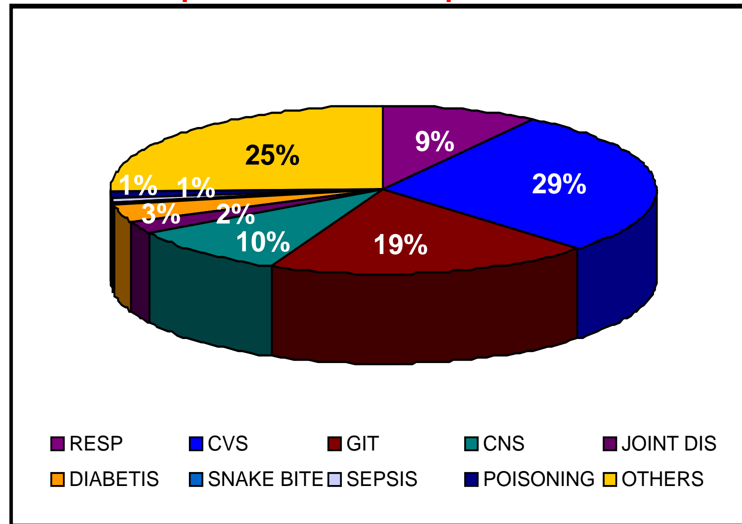
DISEASE PATTERN 2001

Total patients: 2289
Male: 1217 Female: 1072
GI patients: 585 CLD patients: 397



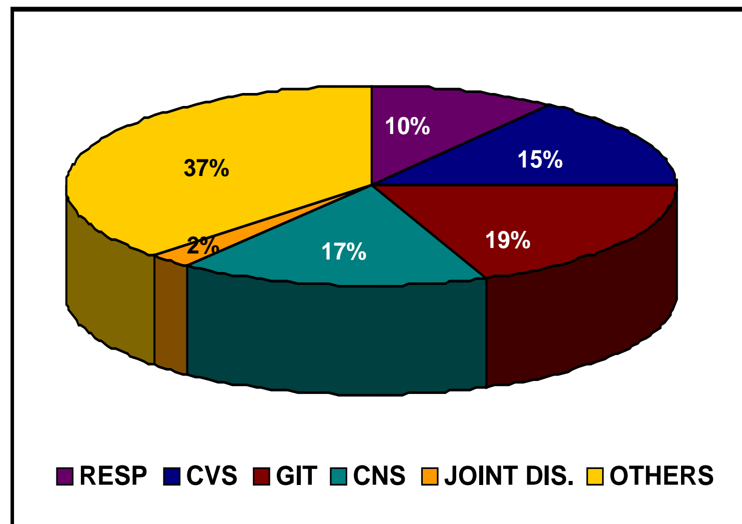
DISEASE PATTERN 2000

Total patients: 2187
GI patients: 413 CLD patients: 232



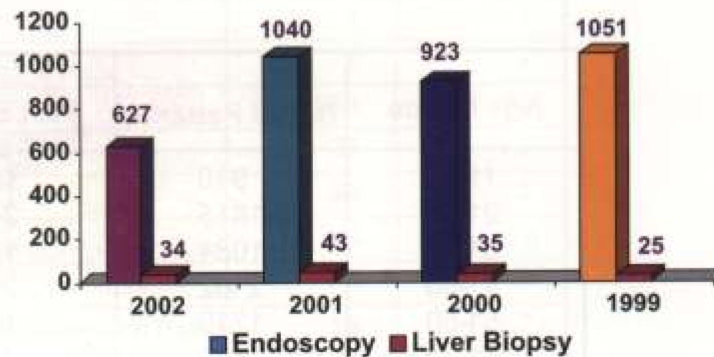
DISEASE PATTERN 1999

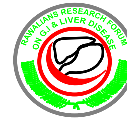
Total patients: 1948
GI patients: 370 CLD patients: 242



Endoscopy Audit
2002-1999

At a glance, it appears that procedure room burden has decreased remarkedly. The reason being was the establishment of procedure rooms in other hospitals from where, patients were referred. However, most patients presented with abdominal pain (36%), upper GI Bleed (30%).





CLINICAL DIAGNOSIS
1998-1991

Total Patients : 8481

Female : 4935(58.2%) Male : 3546(41.8%)

Age Rance	No. of Patients	Percentage
11-20	910	10.6
21-30	1815	21.3
31-40	1684	19.7
41-50	2162	25.4
51-60	1219	14.3
61-70	480	5.7
71-80	211	2.5
Total	8481	100

Gender	No. of Patients	Percentage
Male	3546	41.8
Female	4935	58.2
Total	8481	100

Disease	No. of Patients	Percentage
Upper GI Bleed	2484	29.3
Pain Epigastrium	2983	35.2
Ascites	201	2.4
Hemoptysis	120	1.4
Iron Deficiency Anemia	223	2.6
Vomiting	216	2.5

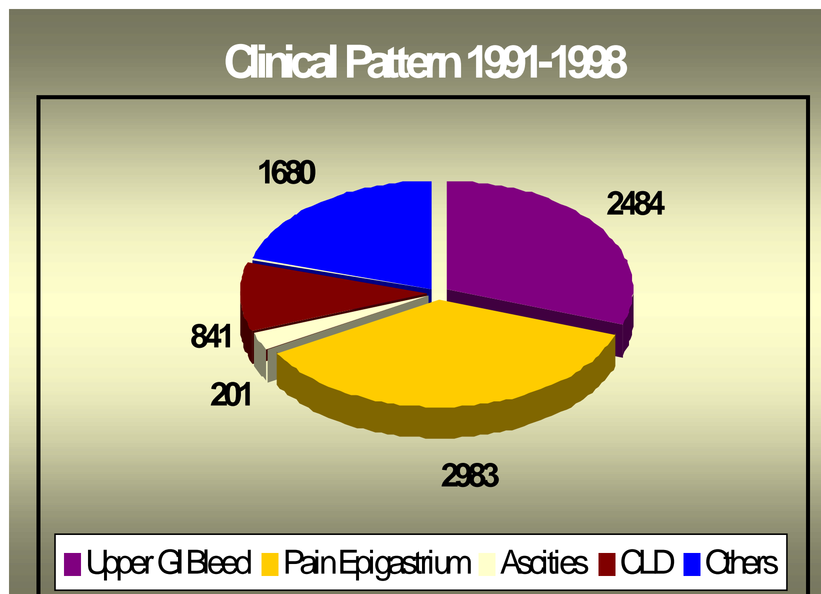
Disease	No. of Patients	Percentage
Reterosternal Pain	177	2.1
APD	387	4.6
Grade I Varices	8	.1
Grade II Varices	2	.0
Follow -up	299	3.5
Weight Loss	23	.3
Malena	39	.5
Dysphagia	85	1.0
Indigestion	13	.2
Non-specific Abdominal Pain	59	.7
Hemoptysis/Hematemesis	14	.2
Hematemesis/ Malena	113	1.3
Hematemesis + Malena + Ascites	31	.4
CLD	841	9.9
Dysentery	64	.3
Pyloric Stenosis + Ca Stomach	23	.3
Cholecystitis	8	.1
Pyloric Stenosis	16	.2
Poisoning	2	.0
Meningitis & Vomiting	2	.0
Celiac Disease	2	.0
Hemangioma	2	.0
Copper Sulphate Poisoning	2	.0
Intestinal/ Abdominal Cox	4	.0
Diarrheo/Pain Epigastrium	4	.0
Acid Ingestion	4	.0
Acute Viral Hepatitis	2	.0
Hepatosplenomegaly	1	.0

CLINICAL DIAGNOSIS
1998-1991

Total Patients : 8481

Female : 4935(58.2%) Male : 3546(41.8%)

Diseases	No. of Patients	Frequency
Upper GI Bleed	2484	29.3%
Pain Epigastrium	2983	35.2%
Ascites	201	2.4%
CLD	841	9.9%
Others	1680	23%



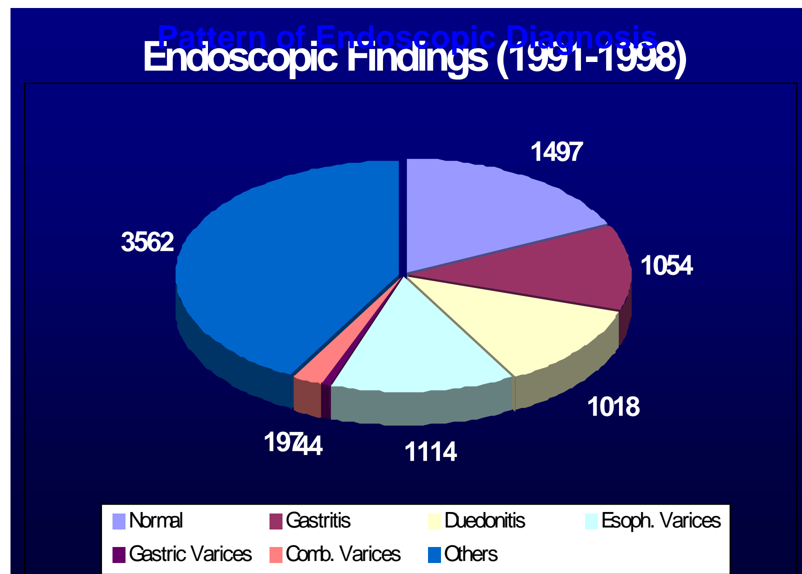
ENDOSCOPIC DIAGNOSIS

1998-2005 (Eight Years Analysis)

Total Patients : 8481

Female : 4935(58.2%) Male : 3546(41.8%)

Diseases	No. of Patients	Frequency
Normal	1497	17.7%
Gastritis	1054	12.4%
Duodenitis	1018	12.0%
Esophageal Varices	1114	13.1%
Gastric Varices	44	0.5%
Combination of Varices	197	2.3%
Others	3562	42%



FINDINGS	No. of Patients	Percentage
Normal	1497	17.7
Gastritis	1054	12.4
Duedenitis	1018	12.0
Esophagitis	395	4.7
Combination	1575	18.6
Gastric Ulcer	386	4.6
Duedenal Ulcer	160	1.9
Esophageal Ulcer	34	.4
Combination of Ulcers	83	1.0
Esophageal Varices	622	7.3
Gastric Varices	44	.5
Combination of Varices	197	2.3
SOL Stomach	113	1.3
SOL Esophagus	38	.4
Erosions	150	1.8
Atrophic Gastritis	69	.8
Hiatal Hernia	7	.1
Gastriis, Dudenitis, Varices	154	1.8
Duedenitis, Gastric Ulcer	146	1.7
Varices, Barett's Esophagus, Gastroduedenitis	62	.7
Gastric Outlet Obstruction	26	.3
Mallory Weis Syndrome	6	.1
CA , Gastritis, Varices	9	.1
Duedenal Diverticula	1	.0
Reflux Esophagitis	28	.3
Grade I Varices	26	.3
Grade II Varices	446	5.3
Grade III Varices	20	.2
Hiatus Hernia + Ulcers	70	.8
Erosions + Ulcers + Obstruction	29	.3
Prominent Vessels	7	.1
Missing	9	.1
TOTAL	8481	100

Rawalpindi General Hospital,Rawalpindi

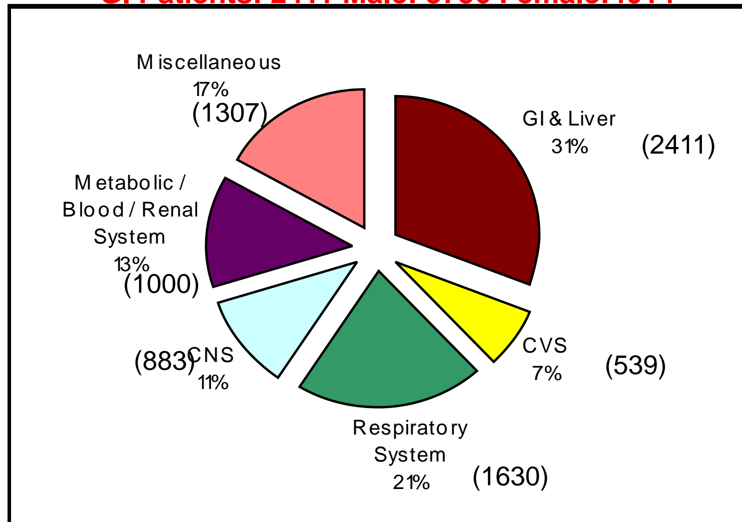
OUTPATIENT DEPARTMENT

2004-2005

DISEASE PATTERN 2005

Total patients:7770

GI Patients: 2411 Male: 3756 Female:4014

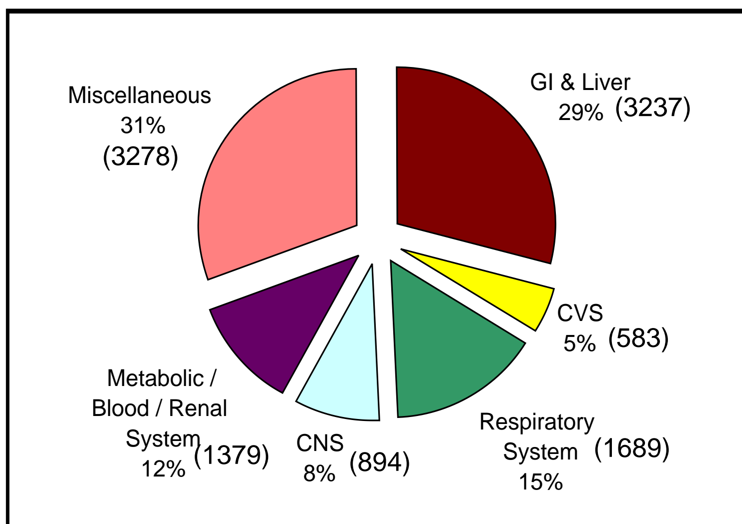


*OPD data of RGH is from January- June 2005

DISEASE PATTERN 2004

Total patients: 11060

GI Patients:2018 Li ver Clinic:1219

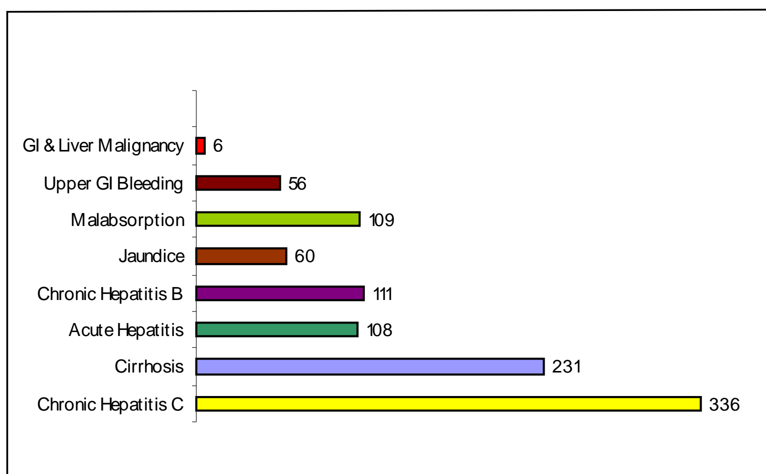


GI & Liver Clinic Audit

2004-2005

LIVER CLINIC DISEASE PATTERN 2005

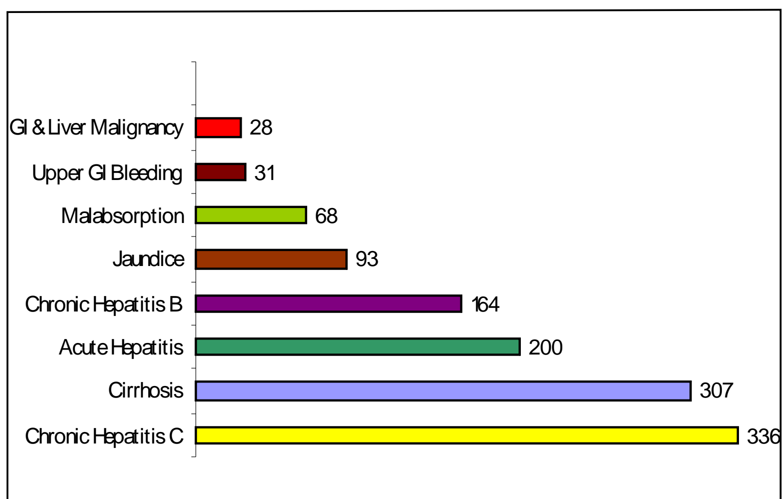
Total patients: 1219
Male: 630 Female:589



(*Clinic Data data of RGH is from January- June 2005)

LIVER CLINIC DISEASE PATTERN 2004

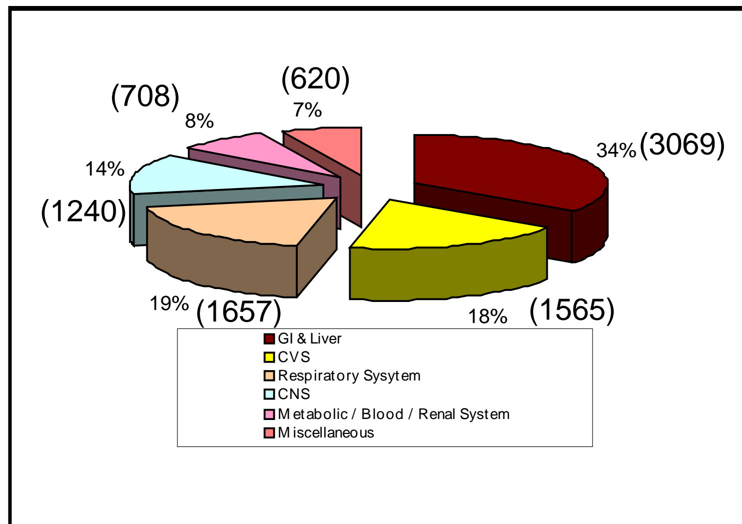
Total patients: 1227
Male: 633 Female: 594



EMERGENCY DEPARTMENT
2004-2005

DISEASE PATTERN 2005

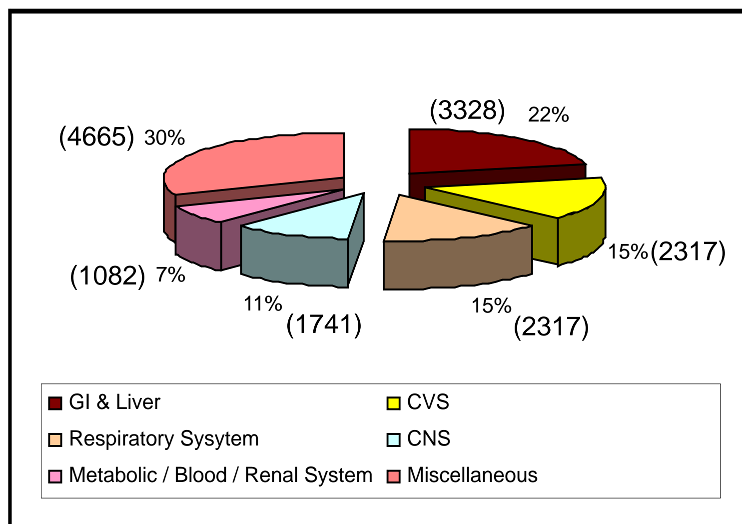
Total patients:8859
GI& Liver Patients: 3069 Male: 3820 Female:5039

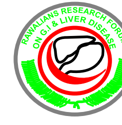


***Emergency data of RGH is from January- June 2005**

DISEASE PATTERN 2004

Total patients: 15450
GI& Liver Patients: 3328 Male: 1588 Female:1740



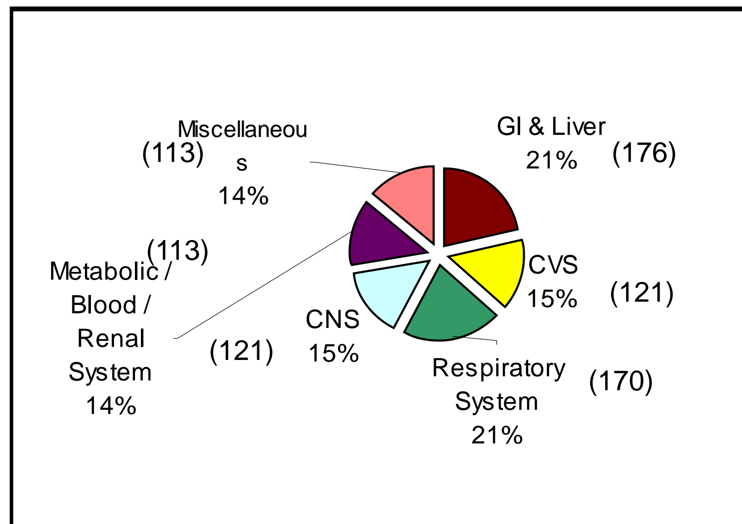


ADMISSION Audit

2004-2005

DISEASE PATTERN 2005

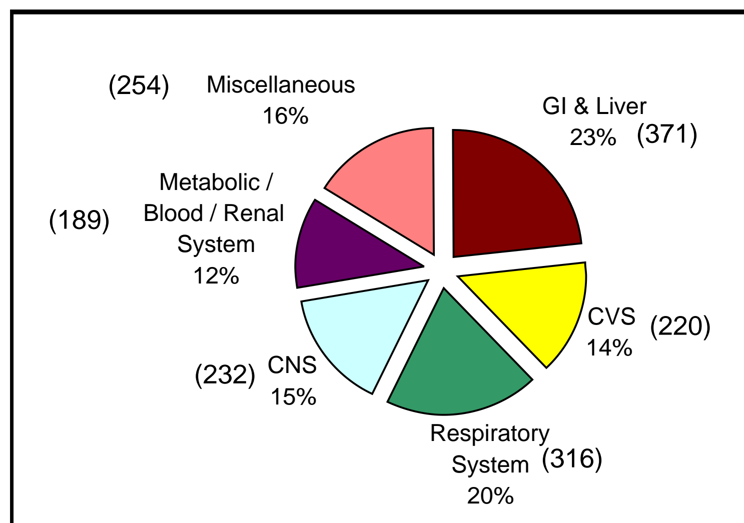
Total patients: 812
GI & Liver Patients: 176 Male: 356 Female:461



*Admission data of RGH is from January- June 2005

DISEASE PATTERN 2004

Total patients: 1582
GI& Liver Patients: 371 Male: 223 Female:148

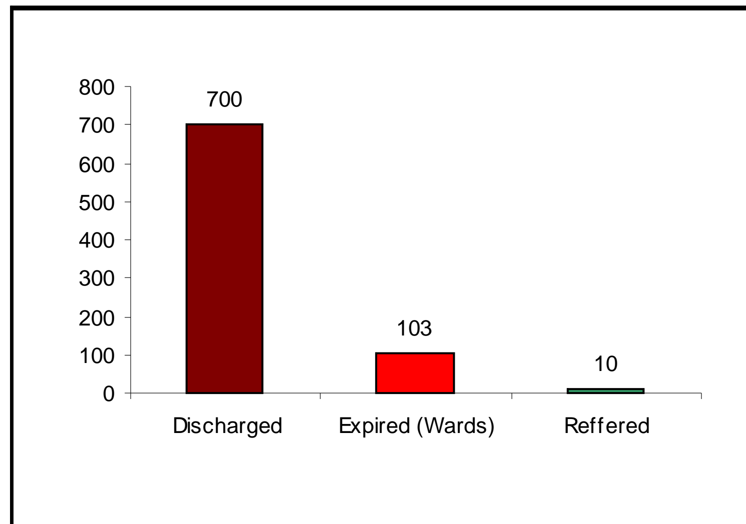


ADMISSION RGH

2004-2005

OUTCOME PATTERN 2005

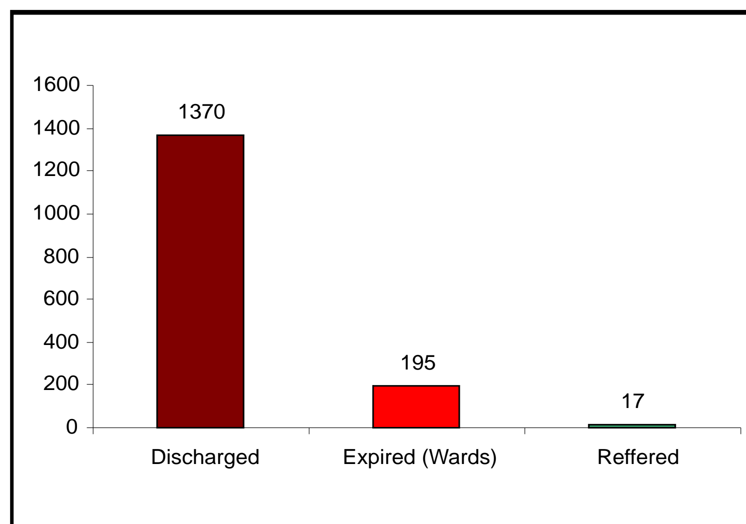
Total patients: 813
Male Patients: 351 Female Patients:462



***Admission data of RGH is from January- June 2005**

OUTCOME PATTERN 2004

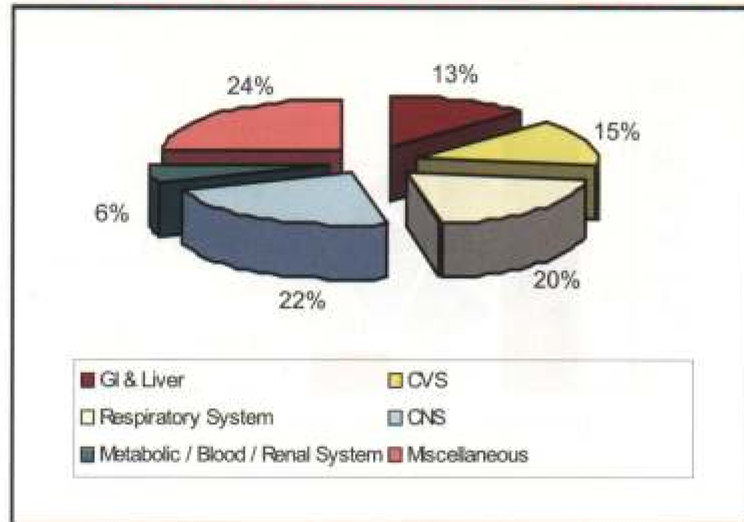
Total patients: 1582
Male Patients: 881 Female Patients:701



MORTALITY
2004-2005

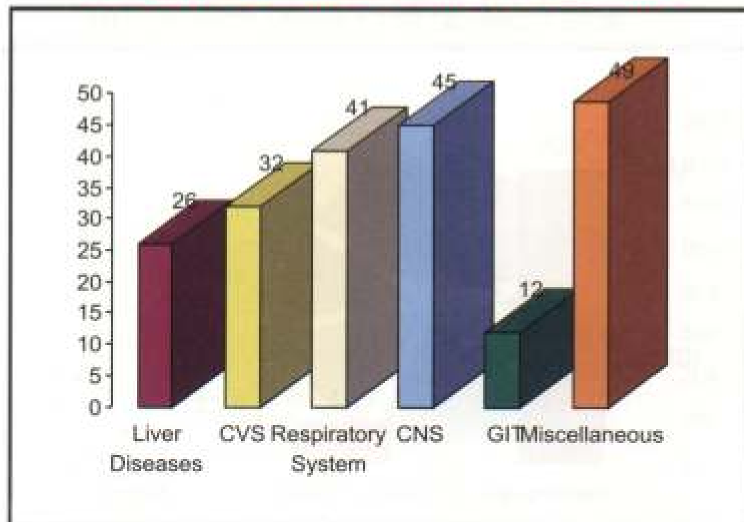
MORTALITY AUDIT 2005

Total patients: 205
GI& Liver Patients:26 Male: 111 Female:94



MORTALITY AUDIT 2005

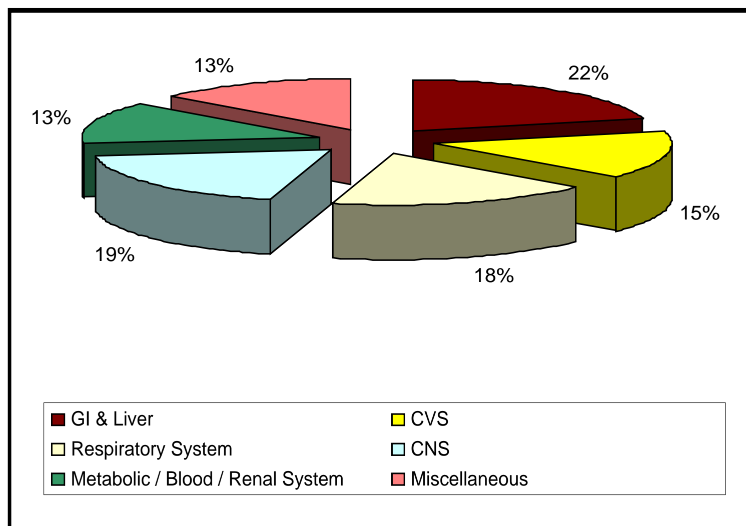
Total patients: 205
GI& Liver Patients:26 Male: 111 Female:94



(*Mortality data of RGH is from January- June 2005)

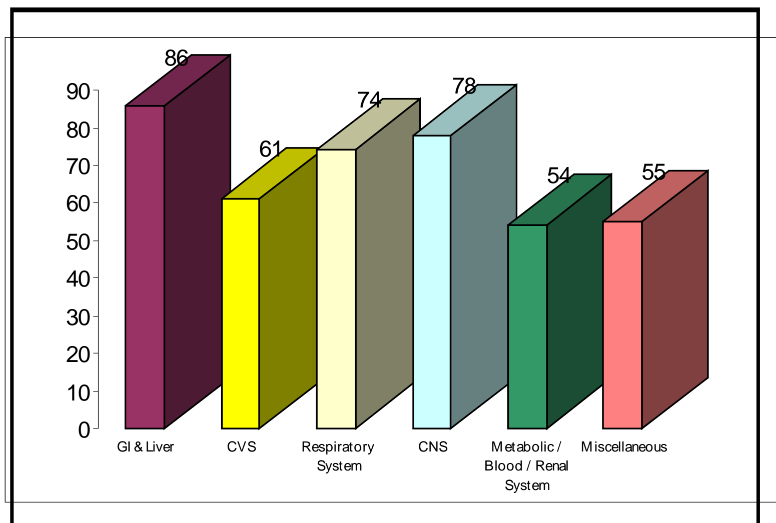
MORTALITY AUDIT 2004

Total Expiries: 408
GI& Liver Patients: 86 Male: 43 Female: 43



MORTALITY AUDIT 2004

Total Expiries: 408
GI& Liver Patients: 86 Male: 43 Female: 43



Summary

In summary we say that GI and Liver diseases magnitude has increased in last decade because of HBV and HCV infections. This is probably due to excessive use of glass syringes, unnecessary injections, unscreened blood transfusions, unhygienic dental practices and barber shaving lack of universal infection control guidline in public and private sectors. Another reason may be high chronicity rate of HBV and HCV resulting in End Stage Liver Disease (ESLD). Poor sanitation, lack of clean drinking water and poor public health education has resulted in increasing GI infections e.g., chronic diarrhoea, nutritional deficiencies and acute gastroenteritis & Hapatitis A & E.

The GI and Liver diseases are commonest presenting modalities in all departments of teaching hospitals like, inpatient, outpatient and emergency department. The commonest mortality in total data is end stage liver disease and its complications. So GI and Liver disease patients are constraining most of the hospital financial, laboratory, manpower and logistic resources.

Conclusion

The liver diseases and their complications are on increase and leading cause of mortality and major burden in all disciplines of tertiary care hospital resources.

Recommendations

1. Mass health education program for health professionals and public regarding Hepatitis B and C transmission and other infectious diseases and their prevention.
2. To improve the personal and public hygiene and provide clean drinking water to reduce all sorts of GI and Liver infections.
3. Vaccination against Hepatitis-B particularly under five years children as part of EPI Programme.
4. To develop separate specialty of GI and Liver in teaching hospitals to handle liver diseases and its complications by super specialist to reduce mortality and better training of undergraduate and postgraduate in this field.
5. To introduce database system of GI and Liver diseases in whole country and particularly in teaching hospitals.
6. To formulate Consensus Guidelines by Pakistan Society of Gastroenterology and Pakistan Society of Hepatology for general practioners, hospitals and Government.
7. To introduce more research in GI and Liver Diseases.
8. To start
9. To introduce National Liver Transplantation Program in Pakistan

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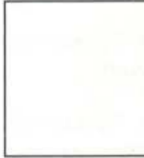

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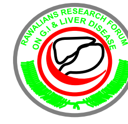

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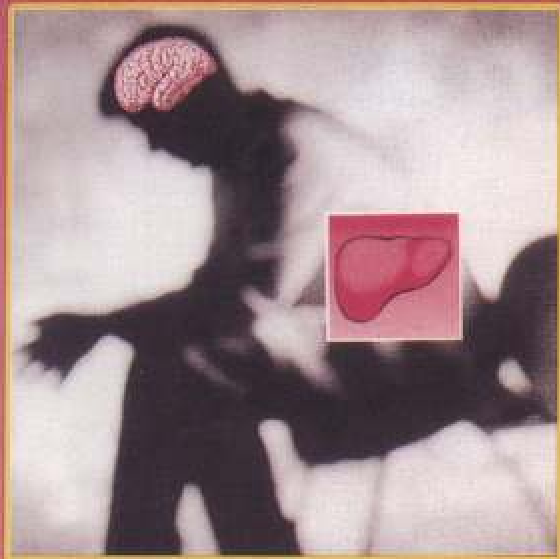

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