Summer Training

In

Soni Manipal Hospitals, Jaipur

(April 6 to June 06th, 2015)

A Project Report on Comparison between Actual bills and package rates of Major Surgical Procedures

By

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2014-2016

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CERTIFICATE

This is to certify that Sweety Jain has undergone her Summer Training in Soni Manipal Hospital, Jaipur from 6th April 2015 to 6th June 2015. The candidate herself carried out all the studies related to her Summer Training. Her approach to the study has been scientific and analytical.

The summer training is in partial fulfilment of the course requirement recommended for the award of Master of Business Administration-Hospital & Health Management.

I wish her success in all her future endeavours.

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ManipalHospitals
LIFE'S ON

SMH/HR/2015/TP/125

6th June 2015

To Whomsoever It May Concern

This is to certify that **Ms. Sweety Jain** has successfully completed 60 days training at **Clinical Operations** department in our Hospital, under the supervision of Dr. Nitesh Kumar.

Project: Comparative study on Actual Bill & Packages of Common Procedures.
Duration of Training: - April 06, 2015 to June 05, 2015.

During this period we found her very sincere and hard working.

We wish her all the best for her future endeavors.

For Soni Manipal Hospital
(A Unit of Manipal Hospitals (Jaipur) Pvt Ltd

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Deputy Manager-HR

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Acknowledgements

At the onset of the report I would like to express my special gratitude and appreciation to Mr Varun Sharma, Unit Head for allowing me to pursue my summer internship from Soni Manipal Hospitals, Jaipur.

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This training wouldn't have been completed without a substantial support from various departments and other staff members at Soni Manipal Hospital for being so helpful all the time and making this summer training project an unforgettable experience.

I express my gratitude and respectful regards to my mentor Prof. Goutam Sadhu, IIHMR, Jaipur for his able guidance and useful suggestions, which helped me in completing the project work.

I would also like to thank my institution and faculty members without whom this project would have been a distant reality.

Sweety Jain
NAME OF STUDENT

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ABBREVIATIONS

ALS and BLS	ADVANCE AND BASIC LIFE SUPPORT AMBULANCES
CABG	CORONARY ARTERY BYPASS SURGERY
CCU	CRITICAL CARE UNIT
CGHS	CENTRAL GOVERNMENT HEALTH SCHEME
CHD	CORONARY HEART DISEASE
CSSD	CENTRAL STERILE SUPPLY DEPARTMENT
CTG	CARDITOCOGRAPHY
ECHS	EX-SERVICEMAN CONTRIBUTORY HEALTH SCHEME
ESIC	EMPLOYEES STATE INSURANCE CORPORATIONS
GW	GENERAL WARD
HDU	HIGH DEPENDENCY UNIT
ICU	INTENSIVE CARE UNIT
LSCS	LOWER SEGMENT CEASAREAN SECTION
MICU	MEDICAL INTENSIVE CARE UNIT
NABL	NATIONAL ACCREDITATION BOARD FOR TESTING AND CALIBRATION LABORATORIES
NICU	NEONATAL INTENSIVE CARE UNIT
OPD	OUT PATIENT DEPARTMENT
OT	OPERATION THEATRE
PVC Tubing	POLY-VINYL CHLORIDE TUBES
Pvt	PRIVATE ROOMS or DELUX ROOMS
THR	TOTAL HIP REPLACEMENT
TKR	TOTAL KNEE REPLACEMENT
TS	TWIN SHARING or SEMI DELUX ROOMS

SONI MANIPAL HOSPITALS, JAIPUR

INTRODUCTION

The focus at Manipal Hospital is to develop an affordable tertiary care multispecialty healthcare framework through its entire delivery spectrum and further extend it to homecare.

Over the last few years, They have not only focused on treatment delivery but also at the quality aspect, and hence have the honour of having Manipal Hospital NABL accredited hospital.

Its Clinical Excellence is rooted in their excellent team of doctors/medical specialists who are well versed with the latest advancements in their respective field of medical expertise. This is further complemented by their teams of highly trained nurses and paramedical people.

At Manipal Hospitals, they are at the leading edge of technological advancements in the medical world. This, along with state-of-the-art infrastructure and facilities, the finest minds in Rajasthan and a genuine desire for providing the best healthcare drives us to deliver path-breaking care for their patients on a day-to-day basis. From the smallest to the most complex medical problems, They pride themselves in the way they deliver healthcare.

Soni Manipal Hospital is a name synonymous to emergency care in this part of the country. With the largest number of ICU beds among all the public & private hospitals in the state, Manipal Group of Hospitals is the most preferred destination for all kinds of emergency treatments. As part of the overall endeavour to improve surgical and critical care outcomes across the Hospitals operations – a first of its kind in Rajasthan - unified policies for the control of infection and the development of resistant strains of microorganisms have been formulated and implemented over the years.
Consultation with our doctors starts with fixing up an appointment either by phone call or by visiting our hospitals in person, after which you will be given a Manipal record file and a unique hospital Identification number (UHID) which you can use for your subsequent visits.

Philosophy:

The ethos of Manipal Hospitals is its belief in the credo of its triad of core values namely "Clinical Excellence, Patient Centricity and Ethical Practices" which have led to it becoming one of the best and most trusted healthcare providers in the country today.

Amenities:

Amenities at Manipal hospital are among the best you can ever find in India. Here are some of the essential amenities you can find in Manipal hospitals:

Critical care at this Hospital is provided by multi-professional team of highly experienced professionals in coordination with primary physician who use their unique expertise, ability to interpret important therapeutic information, access to highly sophisticated equipment and the services of support personal care that leads to the best outcome for the patients.

Transport-Emergency ambulance services round the clock for immediate pick up/ drop .

Special Nurse - If any sick or old patient wants special care we can have a special nurse assist you whenever you need help. Just contact their desk, and they will arrange a special nurse immediately.

Well-maintained canteens - Their canteens are equipped with modern canteen facilities where you will get a variety of foods and beverages to refresh yourselves.

24 Hours service - Complete 24 Hour support from NICU and Intensive care facilities, Blood bank, Operation Theatre, Anaesthesia and Laboratory services.

Maternity facilities – They have exclusive facilities in our Maternity. It includes birthing suite, Labour delivery rooms, Diagnostic Foetal CTG, labour analgesia. Management of high risk pregnancy is done safely and carefully here.

Facilities:

General Ward (Male)	18 Beds
General Wars (Female)	18 Beds
Surgical Ward	20 Beds
Oncology Ward	10 Beds
Semi Delux	10Beds
Delux	2 Beds

Specialities:

Accident & Emergency:

The Department of Accident and Emergency care is a 24-hour fully-equipped medical centre which caters to all kinds of accident victims and emergency cases. After providing this initial, but very critical medical help the patient is shifted to the required specialised department for further treatment. If not required, the patient is discharged after the emergency is treated and the required medication is given.

The department is responsible for informing the Police in case of trauma, Poisoning, Suicide, Homicide, rape, assault etc. and notification of all noticeable disease to BMC.

There were 5 Beds two of these are well equipped with defibrillators, Capnograph, Monitors, Ventilators, suction apparatus and other life support systems managed round the clock by efficient doctors and sisters.

There are 3 Ambulances, One with ACLS and two with BLS facility.

Staff:

6 Resident Doctors,1 Incharge,11 Nurses.

Clinical Services:

Outpatient Department:

OPD is one of the most important departments of Hospital it is the first contact point for patient and hospital.

OPD department of Manipal Hospital is divided into two parts:

OPD 1- Ground Floor with 18 Consultation rooms

OPD 2- First Floor with 18 Consultation rooms.

Access to OPD Services:

All patients who visit the Hospital first time for consultation/other services registration form is been generated with CR number present on the form.

OPD Appointment:

Appointment can be fixed over the telephone to the call centre or personally to the reception counter. (QUICKWELL Appointment system)

QUICKWELL Appointment system:

It is new software developed by Manipal Hospital where patient can fix their appointment on call to Toll free number and a particular time slot is issued to patient from doctors' consultation hours.

In Patient Department:

In patient department of Manipal hospital is spread over ground floor, first, second and third floor they are as follows:

Floor	Ward	Number of Beds
Ground	Male, Female, Surgical, Oncology department.	66 Beds
First	Neonatal ICU, CCU	14 Beds
Second	MICU, HDU, Neuro ICU	38 Beds
Third	Semi Deluxe/Deluxe	12 Beds

Each IPD has a patient call monitor to respond immediately to the patient call from the respective beds of semi deluxe/deluxe rooms.

Manipal SEAROC

Manipal SEAROC Comprehensive Cancer Centre is a centre of excellence for cancer care and adopts a multi-disciplinary team approach. It hosts full-fledged departments of Surgical Oncology, Radiation Oncology, Medical Oncology and Clinical Haematology, all co-existing with the entire gamut of super-specialties such as Neurosurgery, Plastic and Reconstructive Surgery, Urology, Maxillofacial Surgery, Histopathology, Nuclear Medicine, Immunology, Transfusion Service and state-of-the-art Intensive Care Unit. In addition, this centre also offers Palliative Care and Preventive Oncology services. In short, the Manipal SEAROC Comprehensive Cancer Centre is a one-stop solution, which provides comprehensive cancer care.

Support Services:

Lab Science Department:

It is a state-of-the-art Laboratory Diagnostic facility for the comprehensive diagnosis of Clinical Pathologic, Haematological, Histo and Cytopatholoic and Microbiological diseases and the highest quality of clinical care for our patients with the latest available Diagnostic Equipment. The hospital's in house laboratory has an extensive test menu meant to cater to the hospital's vast range of super specialties. The laboratory attempts to provide under one roof, a range of tests, numbering over 1000, based on 95 technologies, covering most diseases known to man. The department participates in and holds many Continuing Medical Education (CME) programmes and conferences.

CSSD:

The Department is located in basement adjacent to Laundry services. Department is divided into 3 parts: dirty area, clean area and sterile area.

Different types of sterilizers are present they are as follows:

- Steam Autoclave (manually operated)
- Ethylene Oxide Sterilizer for disposable items.

The department is also responsible for maintaining sufficient stock level of all surgical instruments, drapes and other accessories required for surgical procedure in good condition. Following types of items are sterilized:

- Surgical Instruments
- Catheters (rubber)
- Linen
- Dressing materials
- Laparoscopic instruments
- PVC Tubing's etc.

Standard Operating procedures:

Cleaning activity – Floor mopping, surface cleaning, AC Duct cleaning-2.5 % hygenol.

Quality Checks – each cycle graph is analysed, Colour change of biological indicator, colour change of indicator of Ph.

Resterlization of CSSD Goods.

Imaging Department:

Imaging Department is a diagnostic department where various investigations of the patients are done. Both IPD &OPD patients come for investigation either through an appointment or walk in patient.

Imaging department can be divided into 5 sections namely:

- X ray (general radiology)
- Ultra-sound
- Computed Tomography Scan (CT Scan)
- Colour Doppler
- MRI (Magnetic resonance Imaging)

Imaging department is located in the basement. The reception counter for registration and billing of all investigation are taking place at main Registration counter at ground Floor.

Objectives of the department:

- To do quality imaging using all necessary safety measures in radiation.
- Perform quality reporting and interacting with clinicians on regular basis through follow ups.
- Monitor work of all technicians on regular basis to maintain as well as improve quality.
- Interact with bio medical department on regular basis for upkeep of all equipment’s.

Cath Lab:

The department deals with services which can be both diagnostic for detection of the disease and therapeutic, on the basis of diagnostic findings.

It covers mainly -

- Coronary Angiography (radial, femoral packages)
- Intra-aortic Balloon Pump (IABP)
- Temporary pacemaker
- Cardiac catheterization
- Pericardial tapping
- Aerogram
- Combo Coronary Angiography
- Balloon angiography
- Permanent pacemaker
- Valvuloplasty.

Project Report on Comparative study on Actual Bills and Package rates

INTRODUCTION

A comparative study on actual bills of patients and package rates of Major Surgical Procedures for both CASH and CREDIT (ECHS/CGHS/ESIC) patients.

Major surgery is any invasive operative procedure in which a more extensive resection is performed, e.g. a body cavity is entered, organs are removed, or normal anatomy is altered. Any surgical procedure that involves anaesthesia and respiratory assistance is major surgery.

This study is limited to Five Major Surgical Procedures i.e. Total Knee Replacement (TKR), Total Hip Replacement (THR), Coronary Artery Bypass Grafting Surgery (CABG), Lower Segment Caesarean Section (LSCS) and multiple levels Lumbar Laminectomy.

This project was taken up due management's interest to know if any difference exists in actual bills and package rates of these five procedures. If yes, then by how much amount and why?

To find out the reasons for those variations between bills and packages, deep study of the break-up of those bills was done. In addition to this, a study was also done on the variations between the bills of CASH and CREDIT patients, to find out whether hospitals were charging more from cash patients than credit ones or vice-versa. Manipal hospital Jaipur is a Centre for credit (ECHS/CGHS) patients of Rajasthan.

This study is done taking into data from December1 to May15, 2015. This study was done because the hospital wants to review or re-budget the package amount for these procedures.

Package rates were different for CASH and CREDIT patients. These rates were given in the further details.

In packages there was some exclusion for which patients have to pay extra with the

package rate.

Exclusions like -

- Stay above package days will be billed as per actual.
- Investigation above limit.
- Drugs and Consumables above limit.
- Implant charges are not included in packages.
- Cross consultations
- Bed side procedures/ physiotherapy.
- Oxygen above limit, ventilation etc.
- CT /MRI/ Blood and Blood related products.
- Post operation PCA, IV PCA / Epidural PCA.
- Services not related to above line of treatment.

These exclusions are applicable for all packages.

RATIONALE

Every hospital has policy of having package billing system for their major surgical procedures, which are reviewed by the respective department of hospital time to time. The focus of this study is to identify the gaps in the existing packages and actual bills of these procedures and to find out the variations in the bills of credit and cash patients. This study will help in developing new pricing policies and packages to measure the efficiency and profitability of these packages and to optimize the customer satisfaction level from the same. Through this study the author is trying to find out the reasons for those variations and gaps.

OBJECTIVE

- To study and compare the packages of the five major surgical procedures with the actual final bills of the patients.
- To study the Break-up bills of CASH and ECHS Patients.
- To determine the Variation between actual bills and packages.

- To find out the reasons for those Variations.
- To provide recommendations.

METHODOLOGY

- Study Design- Descriptive study.
- Study Area - Major Surgical Procedures.
- Sampling method- Non-probability sampling method is used.
- Study size- Data of total population of these procedures.
- Study period-Data collection period- December1, 2014 to May15, 2015.

DATA COLLECTION TOOL

- Data Collection Criteria - Secondary data of patients' bills was collected from the WIPRO (HIS software of Manipal Hospitals) and Medical Records.
- Data Collection Checklist- Below format of excel sheet is maintained for all patients:-

	A	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	PATIENT NAME	Statya	Sanwar	Nashim	Hari singh	Premeshw	Pushpa	Prem kaur	Mafiya	Vimla	Haq gauri	Ucchab	Satyanarai	Hanuman	Rukmani			
2	CR No.	183386	191862	191863	188640	186404	183586	190951	188034	188534	189937	191501	191740	192303	187686	Average data of CASH patient	Package rates for CASH Patients	Average data of ECHS patient
3	Type of patient	CGHS	ECHS	ECHS	ECHS	ECHS	CASH	CASH	CASH	CASH	CASH	CASH	CASH	CASH	CASH			
4	No. Of days stay	5	6	6	8	5	5	7	5	5	5	5	5	4	4	5	6	6
5	Category of Bed(TS)																	
6	Standard	0	2	2	1	0	1	0	0	0	0	0	0	0	0	0.111111	0	0.625
7	HDU/ICU	1	1	1	0	1	1	1	0	1	1	1	1	1	1	0.888889	1	0.875
8	semi-delux	4	3	3	7	4	3	6	5	4	4	4	4	3	3	4	5	4.5
9	Delux	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Bed Charges Category Wise															0		0
11	Standard	0	2000	2000	1000	1000	0	0	0	0	0	0	0	0	0	0	0	750
12	HDU	863	863	863	0	863	4500	4000	0	4000	4000	4000	4000	4000	4000	3611.111	4500	755.125
13	Semi Delux	8000	6000	6000	14000	6000	10000	15000	12500	10000	10000	10000	10000	7500	7500	10277.78	12500	8750
14	Delux	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	TOTAL BED CHARGES	8863	8863	8863	15000	7863	14500	19000	12500	14000	14000	14000	14000	11500	11500	13888.89	17000	10255.13
16	Consultation fees																	
17	ORTHOPAEDICS	2160	2430	2430	1620	1620	0	2450	0	0	1050	2100	1750	1750	0	1011.111		1923.75
18	INTERNAL MEDICINE	540	270	270	0	0	1050	1750	1050	350	1050	0		350	0	622.2222		236.25

TKR(B)17 TS | TKR UNI 8 TS | THR(U)7 GW | LSCS(11)GW | CABG10 TS | laminecto(18) GW

Edit

Limitations of the study:

For Laminectomy Open Billing System is followed, no packages were Budgeted or Set for this Procedure.

In this study sample size for each procedure is different. As samples were taken according to the bed category of patients, to make the study more relevant and reliable.

Implant charges for these procedures were not considered in the study as well as in the bills of patients because the budgeted packages of credit patients which were set by the government do not include implant charges, as patients choose implant according to their needs and choice as well.

Data Analysis and Interpretations

In this all 5 major surgical procedures are explained and analysed. Package rates of cash and credit patients are given. Analysis was done on three basis- (1) Comparison between actual bill and package rates. (2) Comparison between average data of CASH and CREDIT patient and (3) Variation between actual data and packages of cash patient in detailed form.

TOTAL KNEE REPLACEMENT (TKR):-

Knee replacement surgery can be performed as a partial or a total knee replacement. In general, the surgery consists of replacing the diseased or damaged joint surfaces of the knee with metal and plastic components shaped to allow continued motion of the knee.

The operation typically involves substantial postoperative pain, and includes vigorous physical rehabilitation. The recovery period may be 6 weeks or longer and may involve the use of mobility aids (e.g. walking frames, canes, crutches) to enable the patient's return to preoperative mobility.

Total knee replacement is also an option to correct significant knee joint or bone trauma in young patients. Similarly, total knee replacement can be performed to correct mild valgus deformity. Physical therapy has been shown to improve function and may delay or prevent the need for knee replacement. Pain is often noted when performing physical activities requiring a wide range of motion in the knee joint.

- In TKR study was done for both Bilateral TKR and Unilateral TKR.
- 17 patients for Bilateral TKR and 8 patients for unilateral TKR were covered under this study.

- All these patients were of twin sharing / semi-deluxe room bed category.
- It includes both CASH and CREDIT (ECHS/CGHS/ESIC) patients.

Package rates for credit patients and cash patients are different. The rates which are given for credit patients are of twin sharing rates and for other bed categories there is an increment and deduction process. For general ward bed category they deduct 10% of the package and for private room patients they charge 15% above the package.

For CREDIT patients package rates were:-

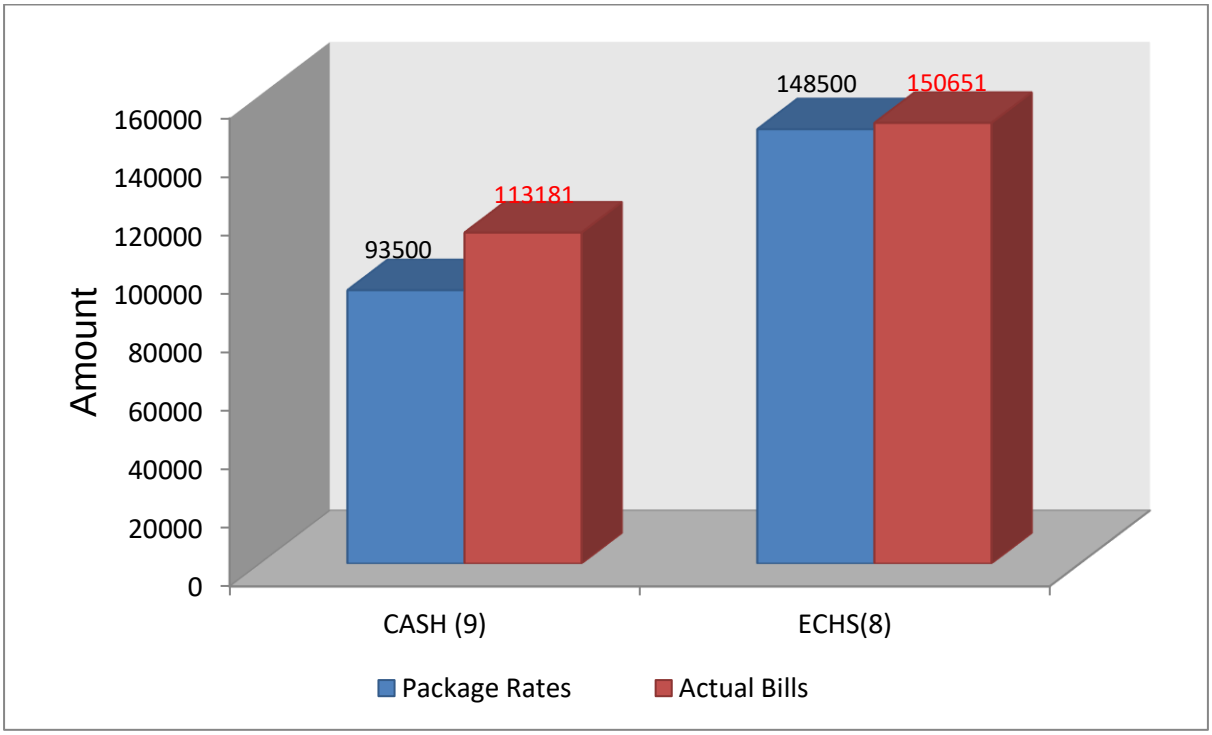
- For unilateral TKR - 99000
- For bilateral TKR - 148500

For CASH patients package rates were:-

TOTAL KNEE REPLACEMENT						
(UNILATERAL)				(BILATERAL)		
	GW	TS	PVT	GW	TS	PVT
Package rate	57000	62700	75600	85000	93500	111000
Per Day Rent (Rs.)	1200	2500	4000	1200	2500	4000
No of Package Days in Ward	4	4	4	5	5	5
ICU stay	**1**	**1**	**1**	**1**	**1**	**1**
Room Rent+ ICU stay	9,300	14,500	20,500	10,500	17,000	24,500
Consultation Charges	1,650	1,950	2,350	1,925	2,300	2,800
OT Complex	29,838	32,821	38,789	44550	49005	57915
Drugs & consumables	8,500	8,500	8,500	17000	17000	17000
Investigations	4,000	4,400	5,200	6000	6600	7800
Physiotherapy	800	880	1,040	1600	1760	2080
oxygen charges	600	600	600	600	600	600

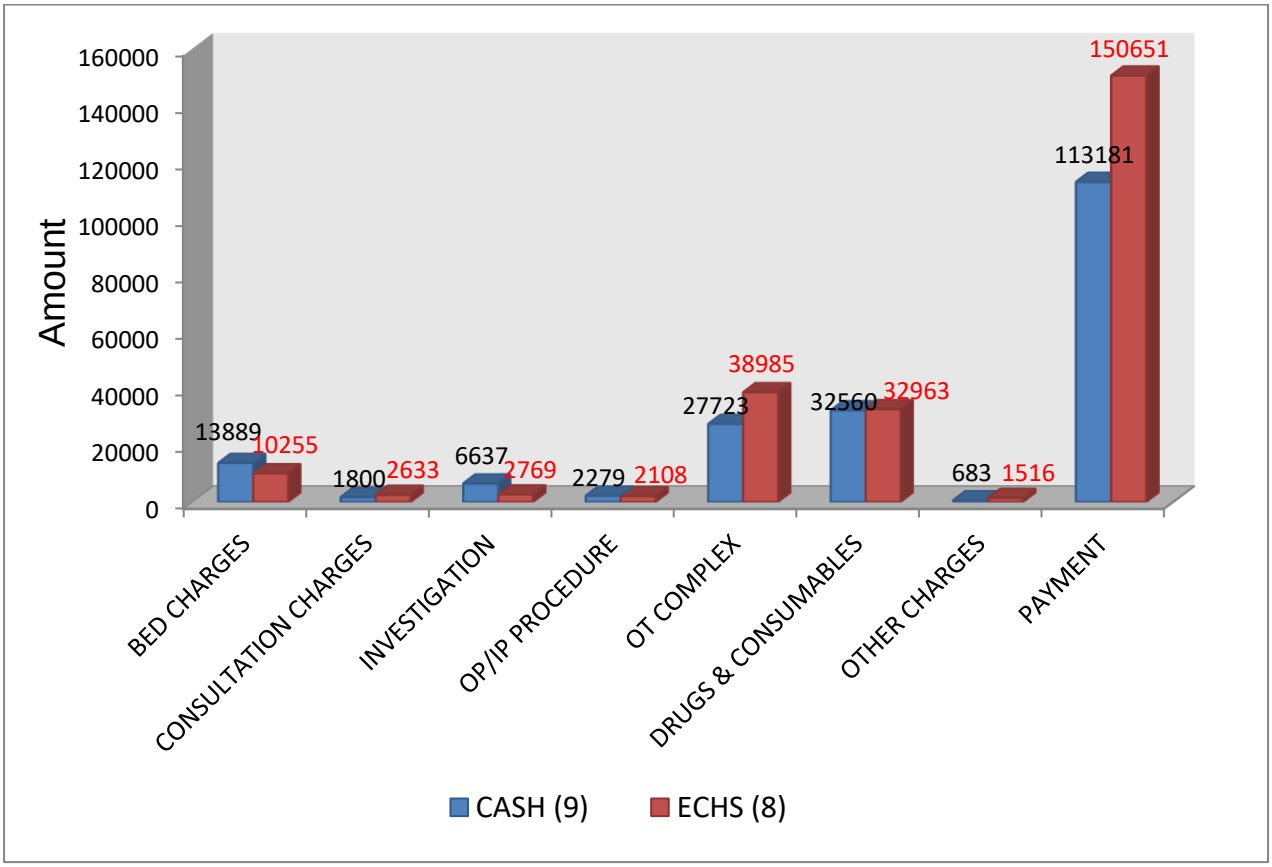
For TKR bilateral

Figure 1.1: Actual Bills and Package Rates



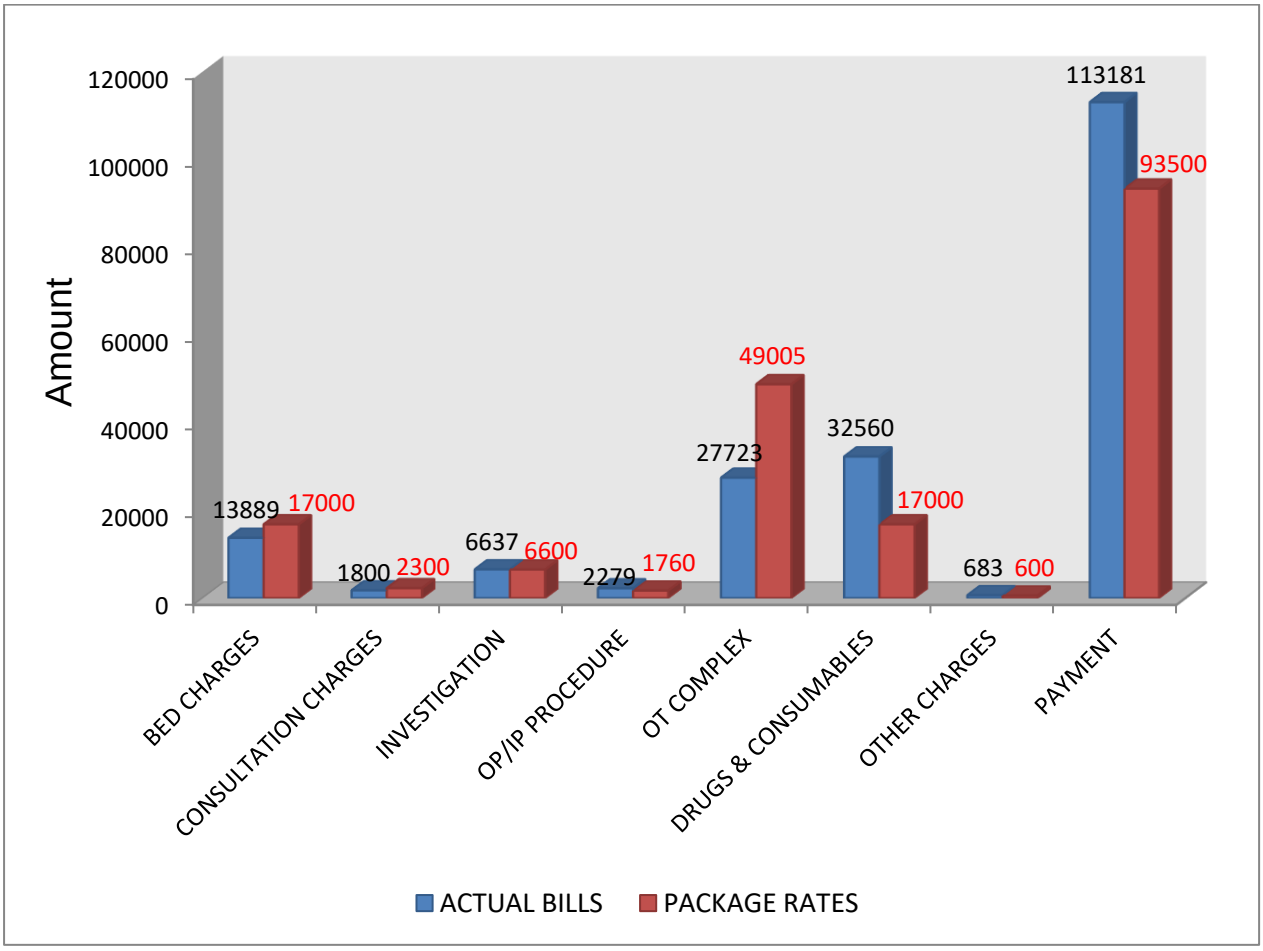
- According to the analysis, this graph predicts that average of actual bills exceed 21% than that of budgeted Packages in case of cash patients however in case of credit patients it is almost equal to package rates.

Figure1.2: Comparison between average data of CASH and ECHS patients



- Figure 1.2 shows that average bill charges of ECHS patients are higher than that of CASH patient in case of OT complex it is 29% higher and in case of other charges it is 55% which is almost double of cash patients.

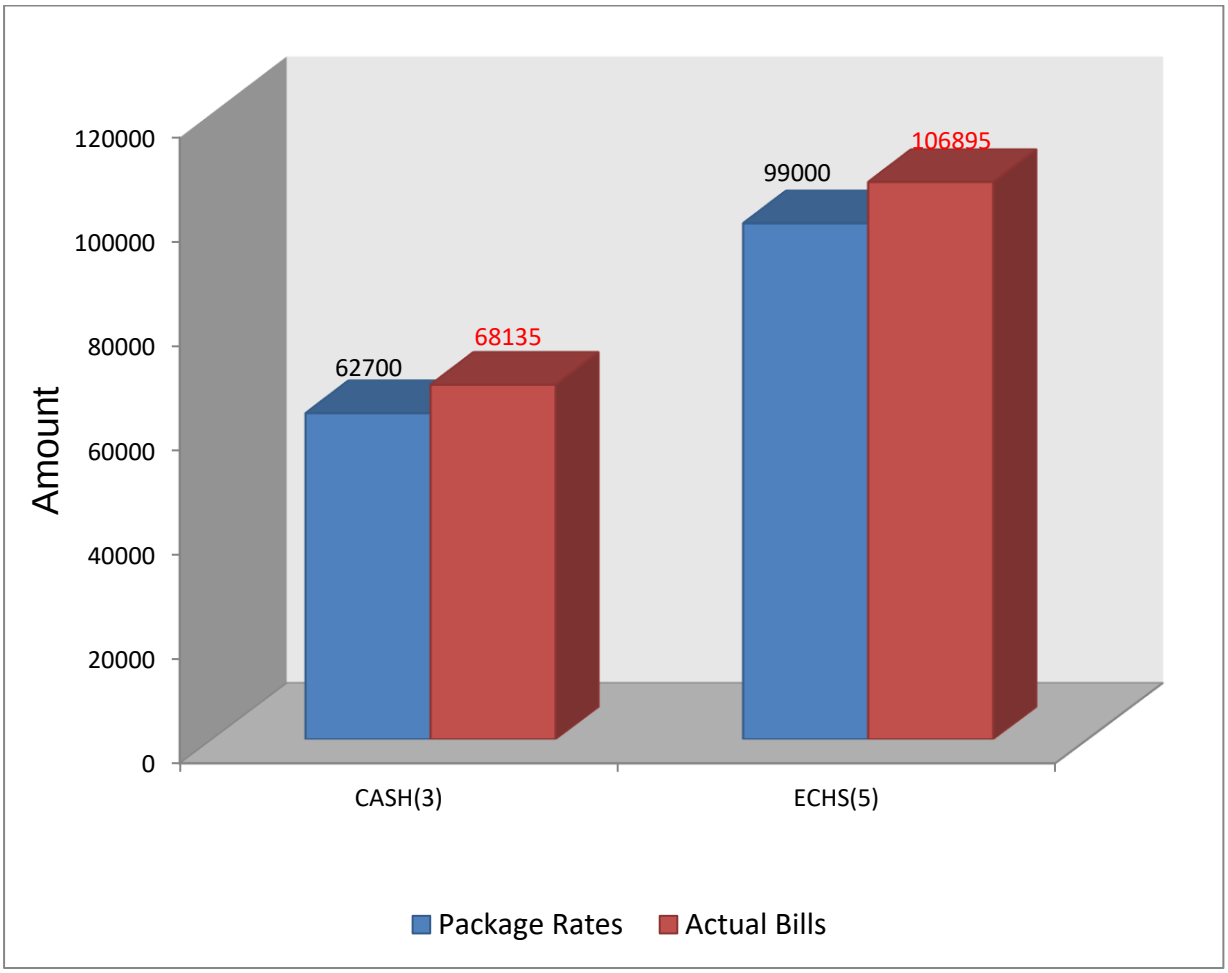
Figure 1.3: Variation between actual data and package rates of CASH patient



- Data of the study shows that the actual Bill charges of Drugs & consumables is more than 91% higher as compare to package rates but other than that in case of OT complex it is just 56% of Package rates.

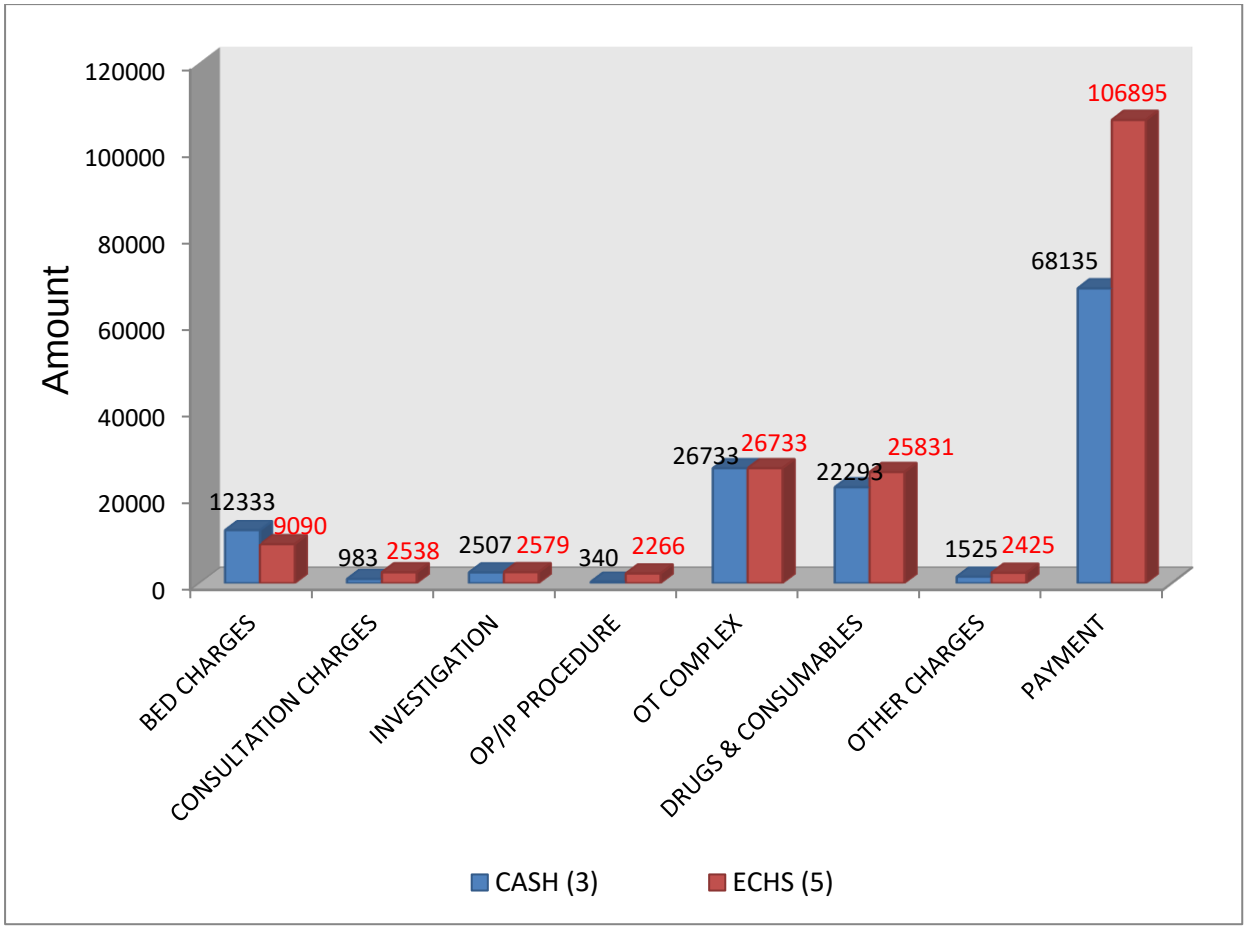
Now for cases of TKR unilateral

Figure1.4: Actual Bills and Package Rates



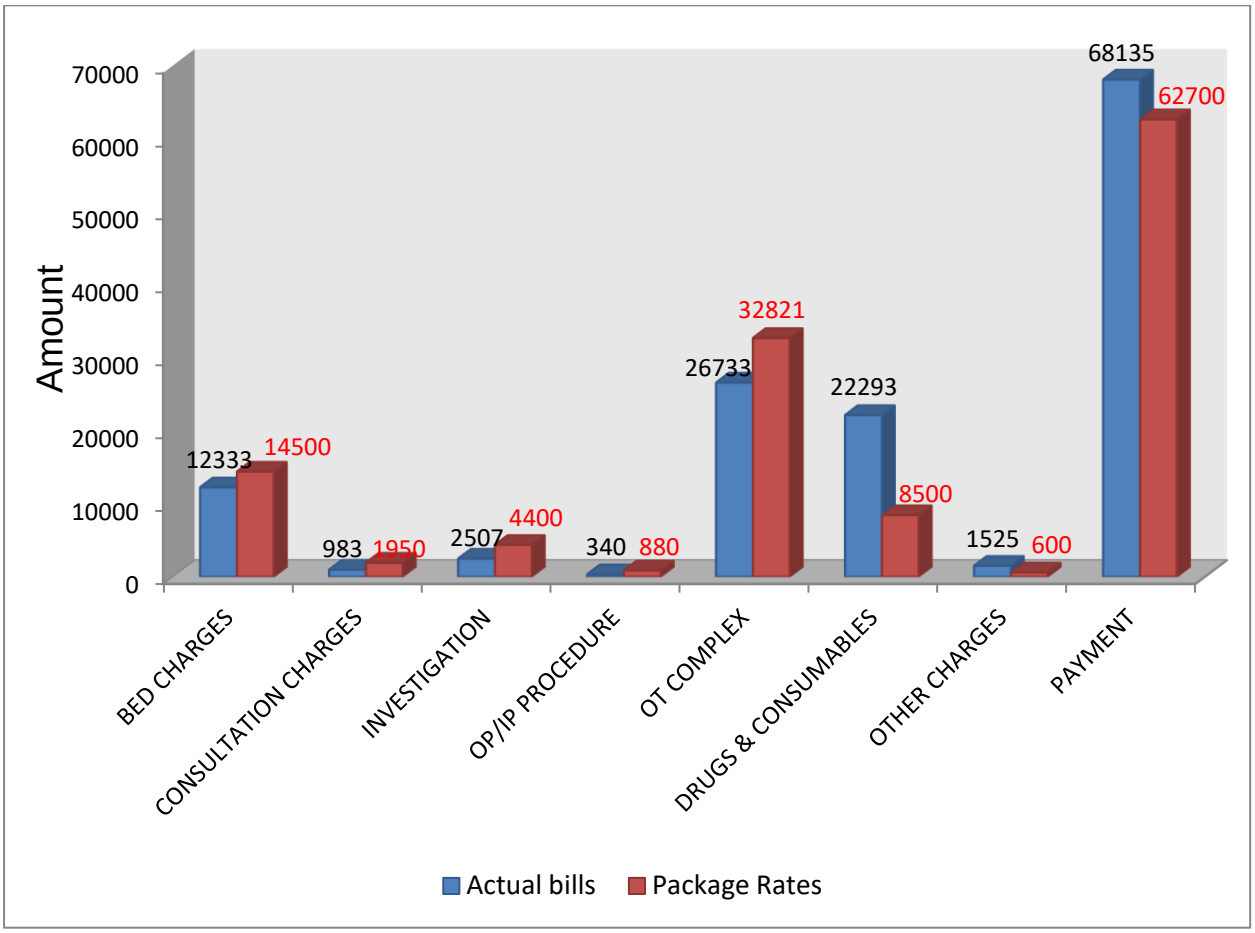
- The above figure depicts that average of actual bills exceed around 8% than that of budgeted packages of procedure.

Figure1.5: Comparison between average data of CASH and ECHS patients



- It is so clearly stated that average bill charges of ECHS patients is more than 36% as compare to CASH patient, especially in case of OP/IP procedure it is 85% higher and in case of consultation charges it is almost 60% higher.

Figure1.6: Variation between actual data and package rates of CASH patient



- Figure 1.6 revails that the actual bill charges exceed budgeted package rates and even in case of Drugs & consumables it is more than double of package rates.

TOTAL HIP REPLACEMENT (THR):-

Hip replacement is a surgical procedure in which the hip joint is replaced by a prosthetic implant. Hip replacement surgery can be performed as a total replacement or a hemi (half) replacement. Such joint replacement orthopaedic surgery is generally conducted to relieve arthritis pain or in some hip fractures. A total hip replacement (total hip arthroplasty) consists of replacing both the acetabulum and the femoral head while hemiarthroplasty generally only replaces the femoral head. Hip replacement is currently the most common orthopaedic operation, though patient satisfaction short- and long-term varies widely.

Risks and complications in hip replacement are similar to those associated with all joint replacements. They can include dislocation, loosening, impingement, infection, osteolysis, metal sensitivity, nerve palsy, pain and death.

- In THR study was done only for Unilateral THR.
- 7 patients for unilateral THR were found under this study.
- All these patients were of general ward room bed category.
- It includes both CASH and CREDIT (ECHS/CGHS/ESIC) patients.

Package rates for credit patients and cash patients are different. The rates which are given for credit patients are of twin sharing rates and for other bed categories there is an increment and deduction process. For general ward bed category they deduct 10% of the package and for private room patients they charge 15% above the package.

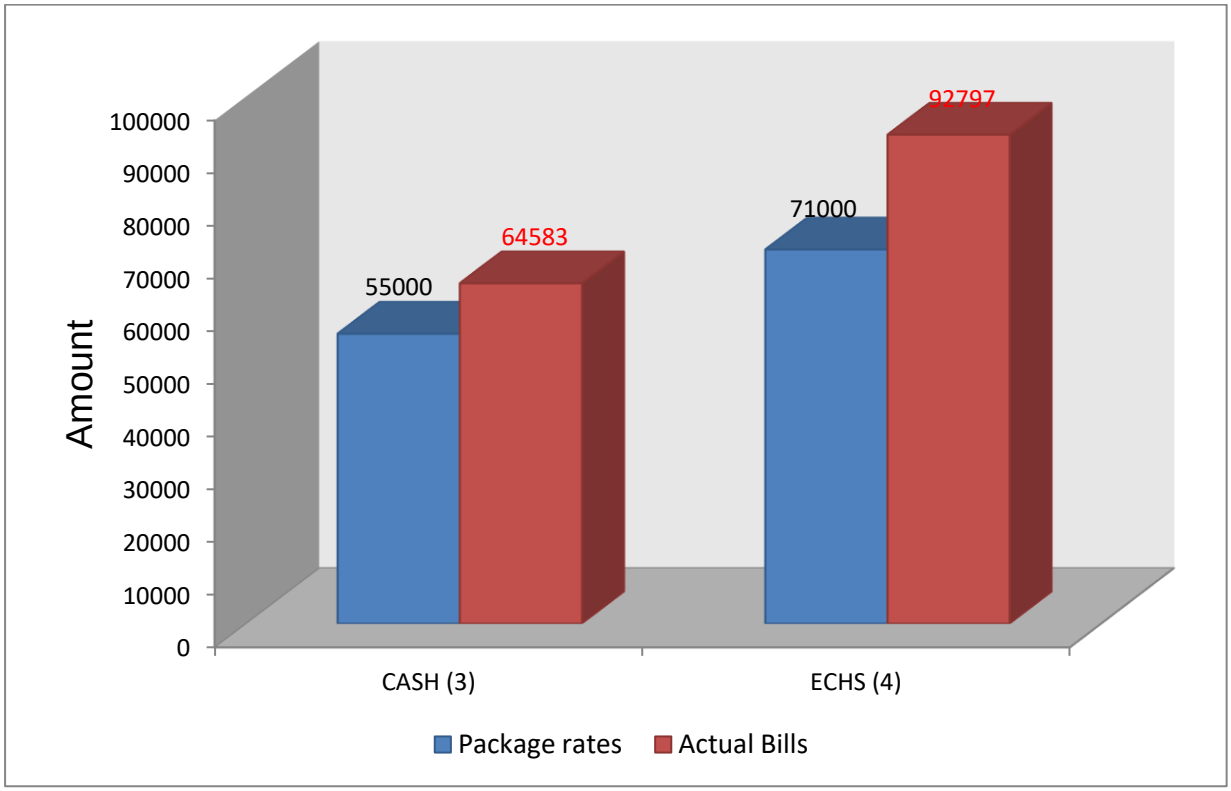
For CREDIT patients package rates were:-

- For unilateral THR - 71000

For CASH patients package rates were:-

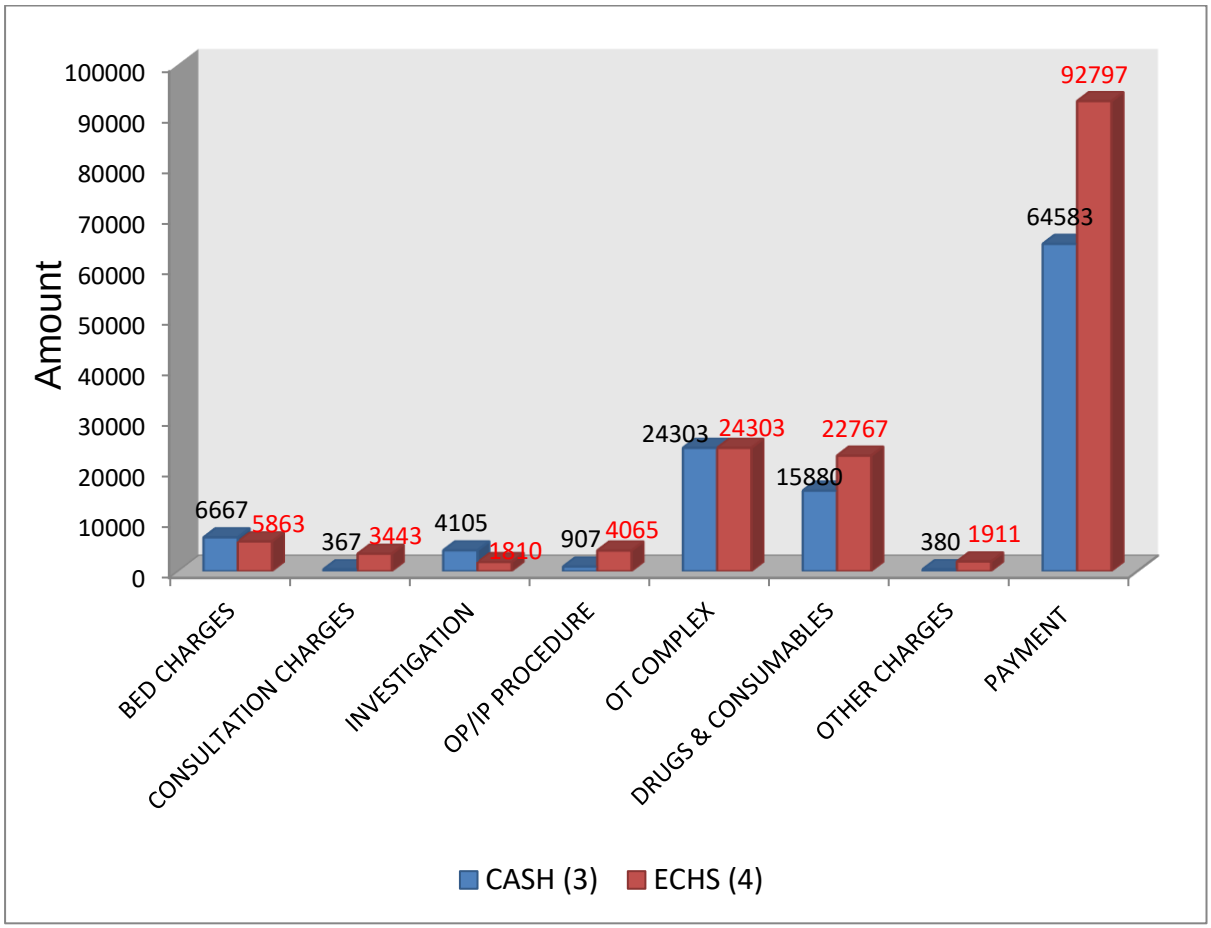
HIP REPLACEMENT (UNILATERAL)			
	GW	**TS**	**PVT**
Package rate	55000	62500	75500
Per Day Rent (Rs.)	1200	2500	4000
No of Package Days in Ward	4	4	4
ICU stay	1	1	1
Room Rent	9,300	14,500	20,500
Consultation Charges	1,650	1,950	2,350
OT Complex	29,838	32,821	38,789
Drugs & consumables	8,500	8,500	8,500
Investigations	4,000	4,400	5,200
Physiotherapy	800	880	1,040
oxygen charges	600	600	600

Figure2.1: Actual Bills and Package Rates



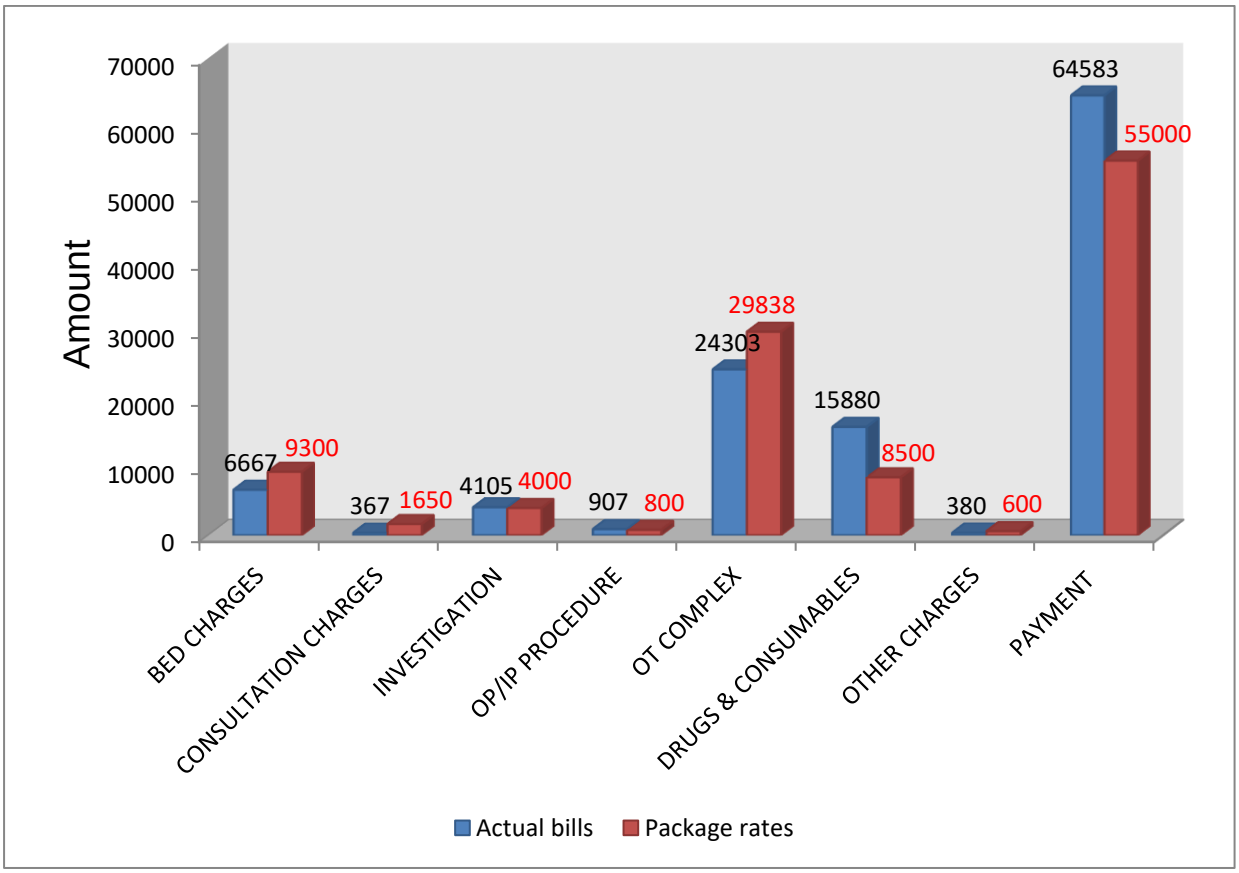
- The above figure depicts that average of actual bills exceed budgeted packages of procedure.in case of cash patients it exceeds by 17% of total package, however in case of credit patients it exceeds by 31%.

Figure2.2: Comparison between average data of CASH and ECHS patients



- Data of the study shows that average bill charges of ECHS patients is 30% more than that of CASH patient. And even in case of Consultation, OP/IP procedure and other charges it is almost 80% higher.

Figure2.3: Variation between actual data and package rates of CASH patient



- Figure 2.3 depicts that the actual bill charges are higher than package rates. In case of Drugs & consumables it is 47% higher than package rates.

MULTIPLE-LEVEL LUMBAR LAMINECTOMY:-

Laminectomy is that surgery which creates space by removing the lamina (the back part of the Vertebra that covers your Spinal canal) also known as Decompression Surgery.

It enlarges your spinal canal to relieve pressure on the Spinal Cord or Nerves.

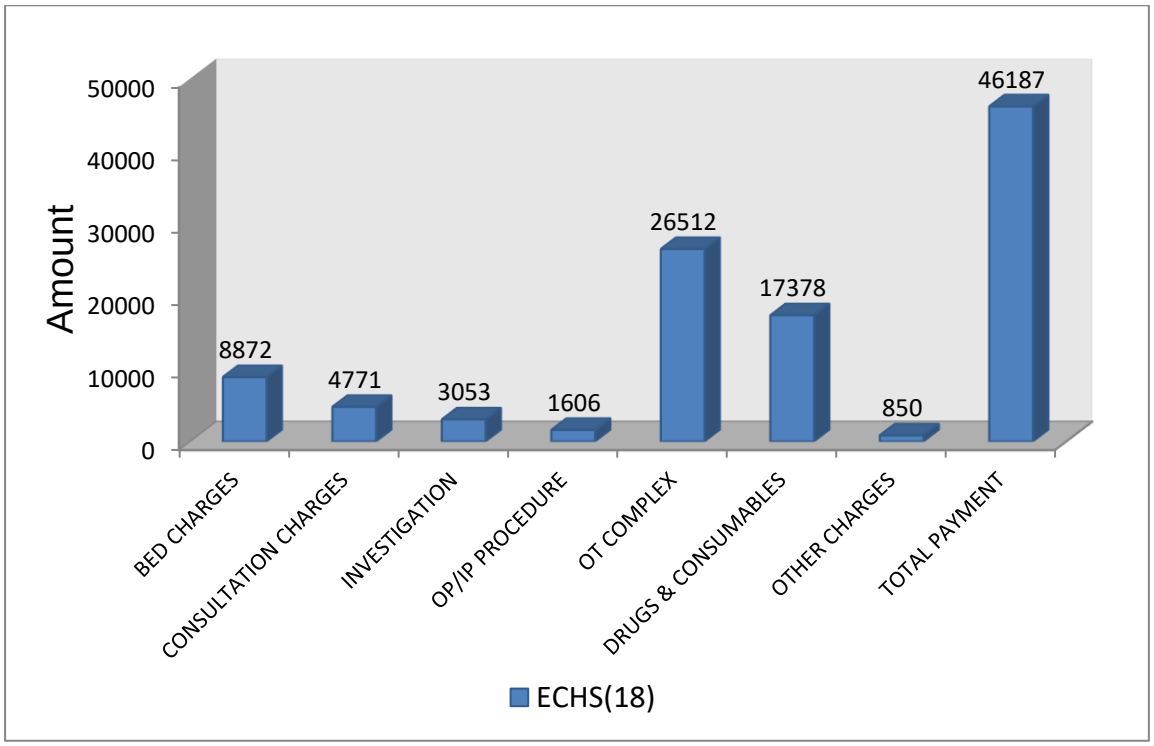
The lumbar laminectomy (open decompression) differs from a microdiscetomy in that the incision is longer and there is more muscle stripping.

- First, the back is approached through a two-inch to five-inch long incision in the midline of the back, and the left and right back muscles (erector spine) are dissected off the lamina on both sides and at multiple levels.
- After the spine is approached, the lamina is removed (laminectomy) allowing visualization of the nerve roots.
- The facet joints, which are directly over the nerve roots, may then be undercut to give to nerve roots more room.
- Post laminectomy, patients are in the hospital for one to three days, and the individual patient's mobilization (return to normal activity) is largely dependent on his/her pre-operative condition and age.
- Patients are encouraged to walk directly following a laminectomy for lumbar stenosis. However, it is recommended that patients avoid excessive bending, lifting, or twisting for six weeks after this stenosis surgery in order to avoid pulling on the suture line before it heals.

In Manipal Hospitals Laminectomy is an open billing system procedure so no packages were budgeted or set for this surgical procedure.

- 18 patients for multi-level lumbar laminectomy were found under this study.
- All these patients were of general ward room bed category.
- It includes only CREDIT (ECHS/CGHS/ESIC) patients as no CASH patients were registered for this procedure in that bed category.

Figure3: Average data of ECHS patients



- It is so clearly stated that in this graph there are no other parameters to do comparison as this is an open billing system procedure.
- It revails that charges of OT complex are highest among all charges and then followed by Drugs and Consumables.

CORONARY ARTERY BYPASS GRAFTING SURGERY (CABG):-

Coronary artery bypass grafting (**CABG**) is a type of surgery that improves blood flow to the heart.

CABG is a surgical procedure used to treat coronary heart disease. It diverts blood around narrowed or clogged parts of the major arteries to improve blood flow and oxygen supply to the heart.

It does not prevent heart attacks. A coronary artery may be unsuitable for bypass grafting if it is small (< 1 mm or < 1.5 mm), heavily calcified, or located within the heart muscle rather than on the surface.

Surgeons use **CABG** to treat people who have severe coronary heart disease (CHD). CHD is a disease in which a waxy substance called plaque builds up inside the coronary arteries.

- 10 patients were covered under this procedure.
- All these patients are of Twin sharing Bed category.
- It includes both CASH and CREDIT (ECHS, CGHS, and ESIC) patients.

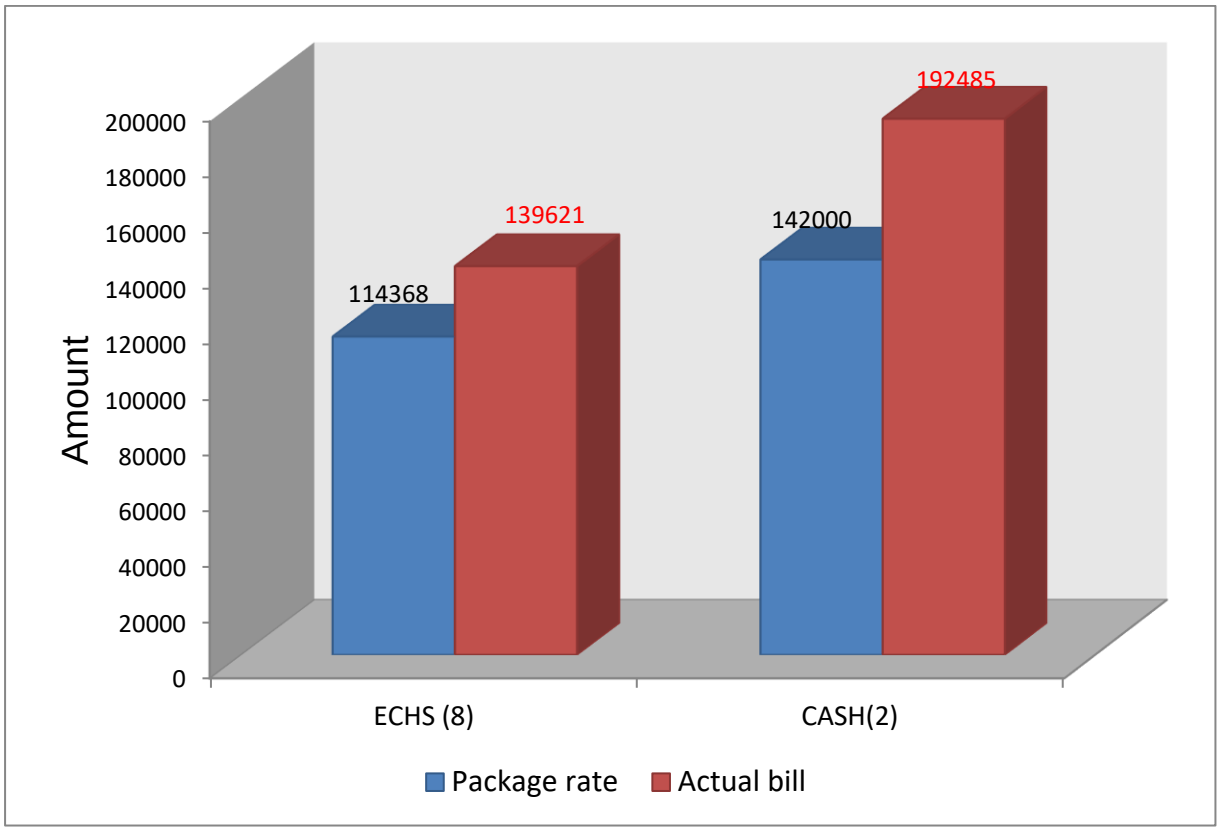
Package rates for credit patients and cash patients are different. The rates which are given for credit patients are of twin sharing rates and for other bed categories there is an increment and deduction process. For general ward bed category they deduct 10% of the package and for private room patients they charge 15% above the package.

For CREDIT patients package rates were: - 114368

For CASH patients package rates were:-

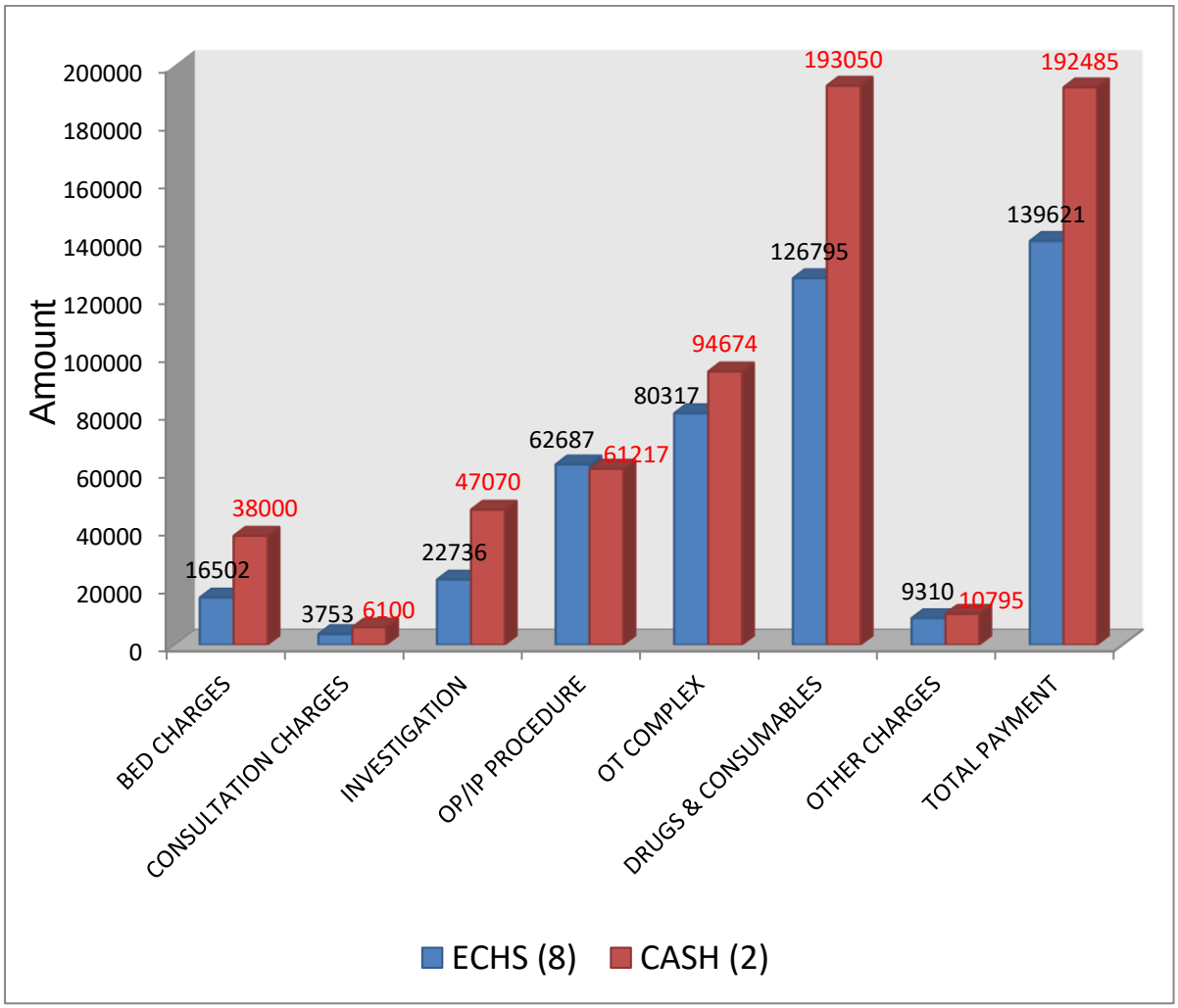
CABG		
	TWIN	**PRIVATE**
PACKAGE AMOUNT	142000	184600
Per Day Rent (Rs.)	2500	4000
No of Package Days in Ward	5	5
No of Package Days in ICU	4	4
Room Rent	12500	20000
No of Days stay – ICU	18000	18000
Consultation Charges-WARD	2500	3250
Consultation Charges-CCU	2200	2200
Sur Pro Fee (SPF)	22720	29536
OT COMPLEX	13632	17722
Anaesthetist fee	4544	5907
OT consumables	32000	32000
Investigations	14200	18460
Pharmacy	15000	15000
PHYSIOTHERAPY	990	1170

Figure4.1: Actual Bills and Package Rates



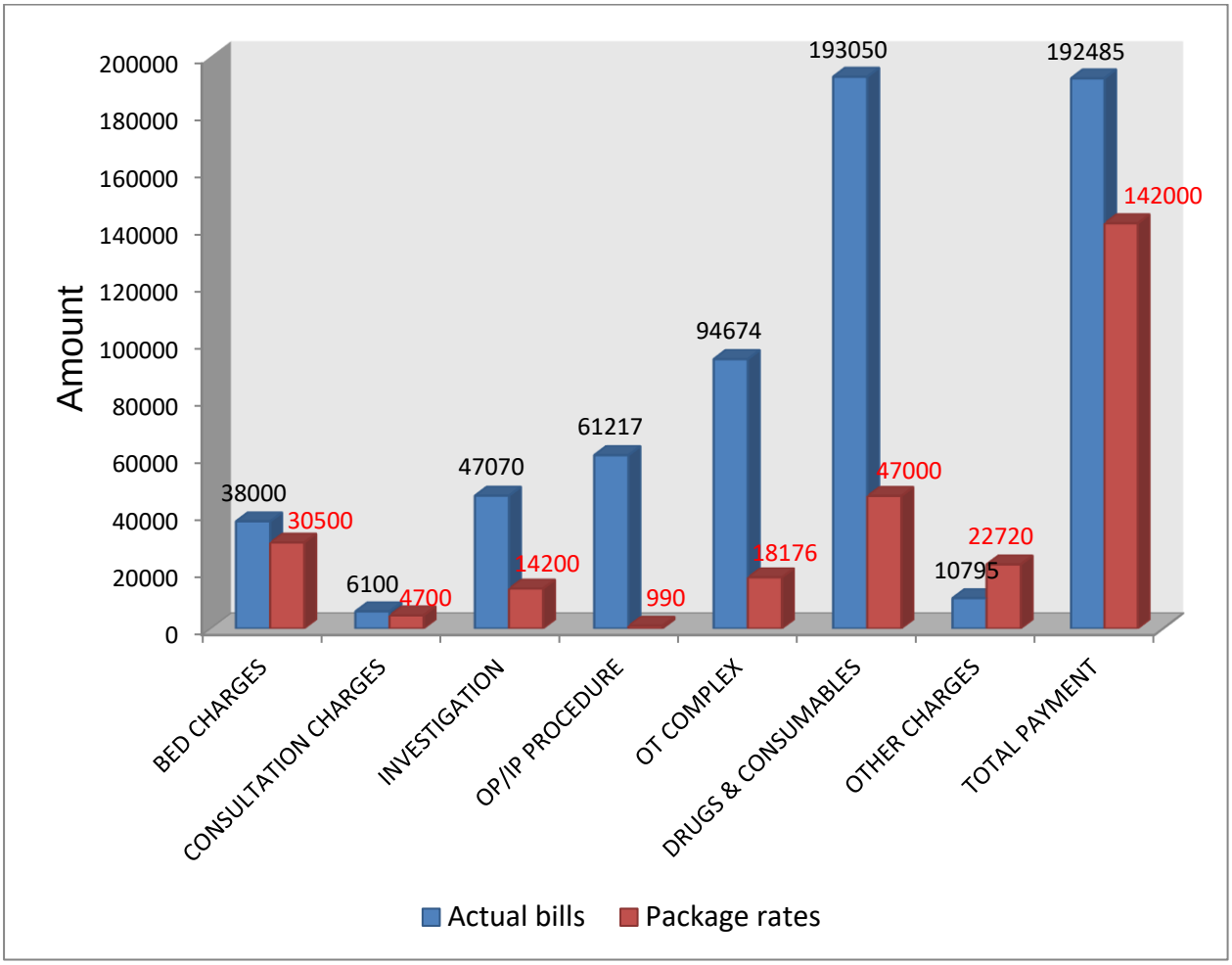
- It is so clearly stated that average of actual bills exceed budgeted packages by 22% and 36% of credit and cash patients respectively.

Figure4.2: Comparison between average data of CASH and ECHS patient



- Above graph depicts that average bill charges of CASH patients are higher than that of ECHS patient. In case of drugs and consumables it is 52% higher than bill of credit patients however in case of investigations average bill of cash patients are more than double of credit patients and same case with consultations also.

Figure4.3: variation between actual data and package rates of CASH patient



- Figure 4.3 revails that the Actual Bill charges are more than thrice of package rates in case of bypass surgeries.
- But this study can be reviewed as biased or irrelevant, as the data for the same was only of 2 patients.

LOWER SEGMENT CEASEREAN SECTION (LSCS):-

A lower (uterine) segment Caesarean section (LSCS) is the most commonly used type of Caesarean section used today. It involves a transverse cut just above the edge of the bladder and results in less blood loss and is easier to repair than other types of Caesarean sections.

It may be transverse (the usual) or vertical in the following conditions:-

- Presence of lateral varicosities.
- Constriction ring to cut through it.
- deeply engaged head

The location of an LSCS is beneficial for the following reasons:-

- peritoneum is more loosely attached to the uterus
- contraction is less than in upper part of uterus
- healing is more efficient
- sutures are intact (less problem with suture loosening)

- 11 patients were covered under this procedure.
- All these patients are of General ward Bed category.
- It includes both CASH and CREDIT (ECHS, CGHS, and ESIC) patients.

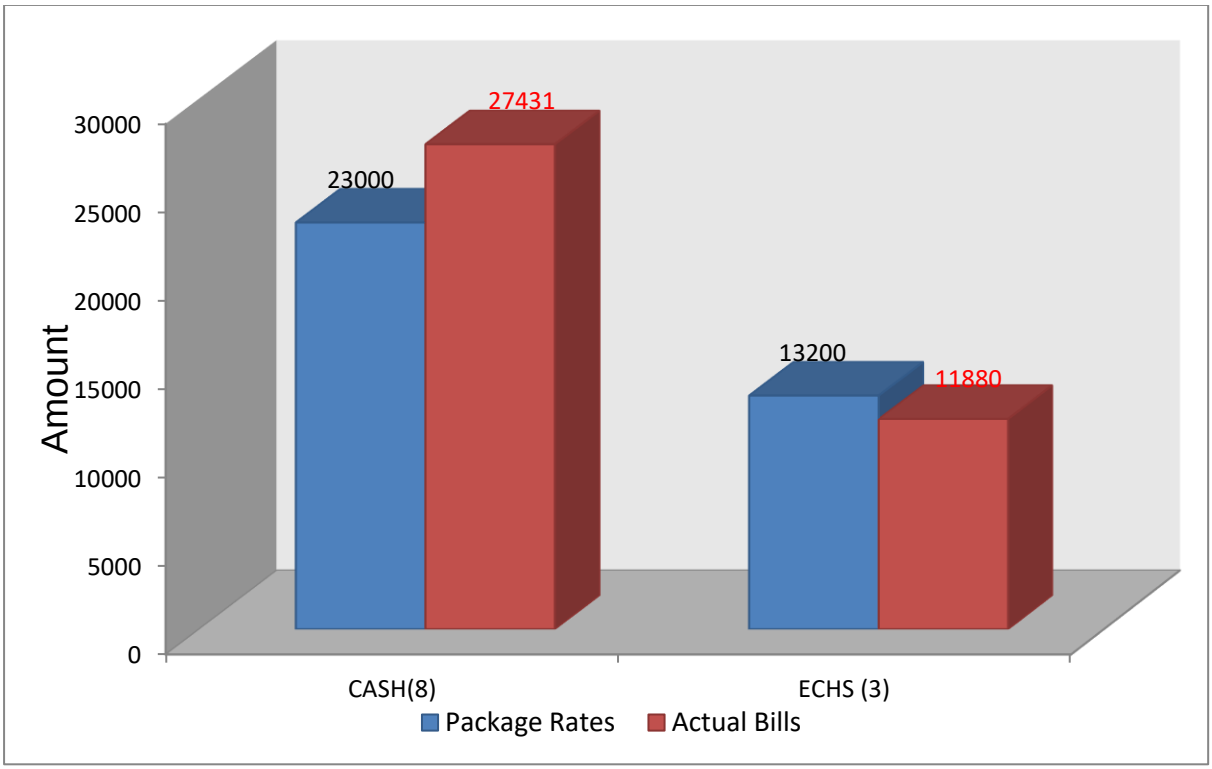
Package rates for credit patients and cash patients are different. The rates which are given for credit patients are of twin sharing rates and for other bed categories there is an increment and deduction process. For general ward bed category they deduct 10% of the package and for private room patients they charge 15% above the package.

For CREDIT patients package rates were: - 13200

For CASH patients package rates were:-

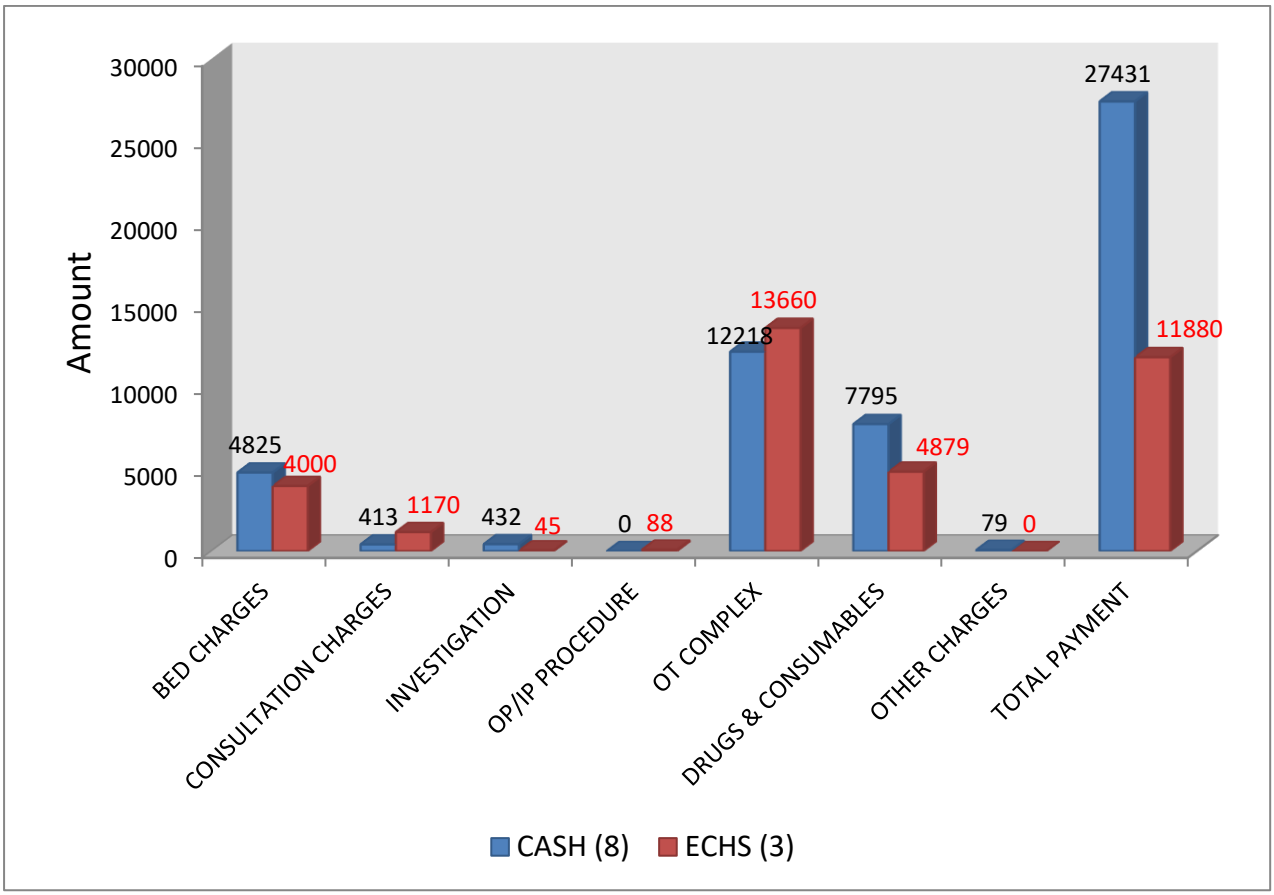
LSCS			
	GW	TS	PVT
Package rate	23000	25300	29900
Per Day Rent (Rs.)	1200	2500	4000
No of Package Days in Ward	3	3	3
Room Rent	3600	7500	12000
Consultation Charges-ward	825	1050	1350
OT Complex	14580	16038	18954
Drugs & consumables	4000	4000	4000

Figure5.1: Actual Bills and Package Rates



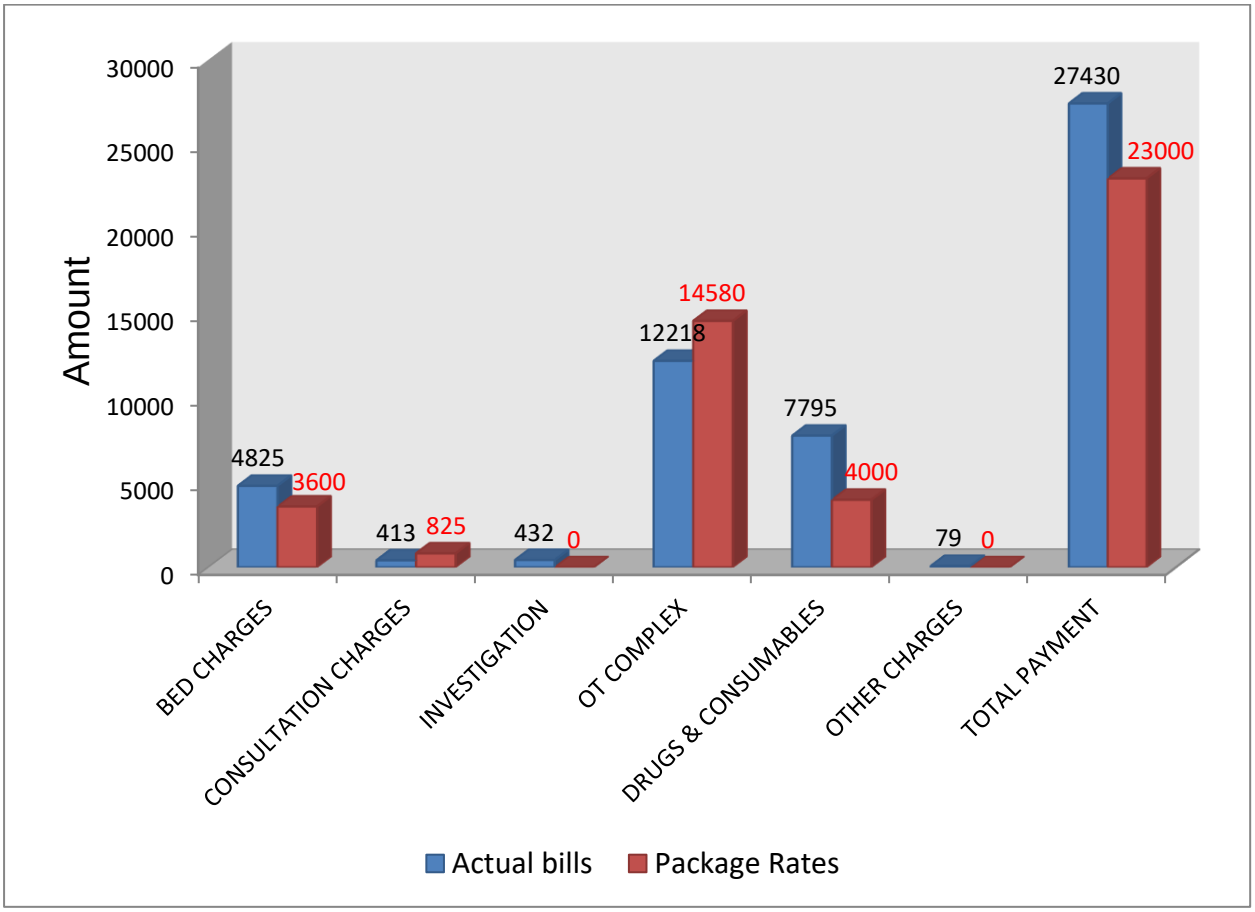
- Data of the study shows that average of actual bills exceed budgeted package rates in case of cash patients by 19% while in case of credit patients it is opposite, here average bill of credit patients is10% less than package rate in this procedure.

Figure5.2: Comparison between average data of CASH and ECHS patient



- According to this average bill charge of CASH patients are more than double, than that of ECHS patient. And in case of Consultation charges average bill of ECHS patient is 64% higher than that of CASH patient.

Figure5.3: variation between actual data and package rates of CASH patient



- Figure 5.3 shows that the actual bill charges are more than package rates.in case of Drugs & consumables charges are almost double than that of package rates.

RECOMMENDATIONS

- Periodic review of packages to optimize the Profitability of the hospital and customer satisfaction level of the patients.
- Hospital can review the prices of Drugs & Consumables and re-estimate the charges for packages of these procedures.
- They should review the package break-up of CABG, as there is huge deviation in the package rates and rates of actual bills.
- They should develop attractive packages for Laminectomy to attract CASH patients.
- Continuous monitoring of packaged patients should be done to measure the efficiency and profitability of these packages.

OTHER ACTIVITIES PERFORMED:-

Extra activities performed in hospital were:-

- Equipment listing for Blood Bank.
- Prepared a report on doctor wise and service wise OPD traffic for the month of May.
- Crash cart audit in radiology department and emergency department.
- Discharge process audit in general ward.
- Pressure sore audit in ICU.
- Audit of Signage's.
- Act as a volunteer on Mother's day celebration event.
- Participated as a volunteer in Women Health Seminar.
- Prepared a brainstorming activity (word search game) for nursing staff on International Nurses day.