A Study on Admission and Discharge of Zulekha Hospital Sharjah

Internship Training
at
Zulekha Hospitals, Sharjah

By
Mangesh Dani

Under the guidance of
Dr. P. R. Sodani

Post Graduate Diploma in Hospital & Health Management
2012–14

Institute of Health Management Research
Jaipur
2014

INSTITUTE OF HEALTH MANAGEMENT RESEARCH
1, Prabhu Dayal Marg
Sanganer Airport, JAIPUR - 302 029, INDIA
Tel. : 3924700, 2791431-32
Fax : 91-141-3924738
E-mail : iihmr@iihmr.org
URL : http://www.iihmr.org
Gram : HEALTHINST

TO WHOMSOEVER MAY CONCERN

This is to certify that Dr. Mangesh Dani student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from Institute of Health Management Research, Jaipur has undergone internship training at Zulekha Hospital, Sharjah from 10th April to 25th May 2014.

The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.

Dr. Ashok Kaushik

Dean, Academics and Student Affairs
Professor IIHMR, Jaipur

Prof. P. R. Sodani

Dean, Training
Professor IIHMR, Jaipur

Joint Commission International Quality Approval

P.O. Box: 48577, DUBAI, U.A.E.
Tel: 04 267 8866, Fax: 04 267 8855
P.O. Box: 457, SHARJAH, U.A.E.
Tel: 06 565 8866, Fax: 06 565 6699

ص.ب: ٤٨٥٧٧، دبي، إ.ع.م.
هاتف: ٨٨٦٦ ٢٦٧ ٠٤. فاكس: ٨٨٥٥ ٢٦٧ ٠٤
ص.ب: ٤٥٧، الشارقة، إ.ع.م.
هاتف: ٨٨٦٦ ٥٦٥ ٠٦. فاكس: ٦٦٩٩ ٥٦٥ ٠٦

E-mail: info@zulekhahospitals.com • Website: www.zulekhahospitals.com

مستشفى زليخة
لأن صحتك غالية
Zulekha Hospital
Your Health Matters

Certificate from Recognition

This certificate is awarded to

Name: Dr. Mangesh M. Dani

In Recognition of having successfully completed his Internship in the department of

Customer Relations.

And has successfully completed his Project on

A Study on Admission and Discharge of Zulekha Hospital, Sharjah, U.A.E. during 10th March 2014 – 16th May 2014

He comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning

We wish him all the best for future endeavors.

Mr. Alam Khan

Asst. Hospital Administrator, Sharjah

Dr. Chandrashekhar Jadhav

Director Zulekha Hospital Sharjah.

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled A Study on Admission and Discharge at Zulekha Hospital Sharjah and submitted by Dr. Mangesh M. Dani Enrollment No. 1732 under the supervision of Dr. P. R. Sodani for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from 2012 to 2014 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Signature

26 - May - 2014

We believe that our people deserve the best of medical expertise and facilities in a patient friendly manner at their doorstep, in their own area and we solemnly promise that we are dedicated to bringing the best to our people, not just today, but by striving continue being the best through sustained improvement in pursuit of excellence.

ACKNOWLEDGEMENT

I owe a great debt to all the professionals at Zulekha Hospital, Sharjah, who have distinguished themselves in the fields of health care management for sharing generously their knowledge and time, which inspired me to do my best at this project study.

My sincere gratitude to Dr. P. R. Sodani and Dr. Chandrashekar Jadhav (Director) for his relentless support and guidance. It has been my privilege to work under his dynamic supervision at the Hospital.

I express my warm veneration towards Mr. Alam Khan (AHA), for his valuable guidance throughout the entire course of study right from deciding the topic to its completion.

My heartfelt gratitude to Dr. Fratoon Patarwala (AHA) Zulekha Hospital, for showing keen interest in the study and for sharing his views in spite of his very busy schedule.

I would like to express my heartiest thanks to all my friends and colleagues who helped me in this study.

Sincerely

Dr. Mangesh Dani

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **a Study on Admission and Discharge** and submitted by **Dr Mangesh Dani** Enrollment No. **17-1332** under the supervision of **Professor P. R. Sodani** for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from **27th January 2014** to **16th May 2014** embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Signature

ABSTRACT

Hospitals face an increasing demand for hospitalization, for medical staff due to the introduction of innovative technology in diagnostic and therapeutic procedures, for higher standards in clinical safety and, finally, an increasing patient demand for better quality services. Optimal bed management is a strategic aim in any hospital as the provision of an inpatient bed, together with the staff and supplies involved, accounts for much of its most complex and expensive activity. The way beds are managed affects the way other hospital departments perform since many are dependent on bed availability, such as emergency services, operating theatres, etc. At the same time, these other hospital departments have an impact on bed usage. Therefore, it is essential to have an efficient and correct bed management in order to improve service delivery.

The hospitalization process has three main stages: an admission, an inpatient period and a final stage with the discharge process. An inefficient bed management in any of the three stages of the hospitalization can cause a mismatch between demand and capacity. It has been proved that when bed demand exceeds capacity, patient admissions and scheduled surgical procedures can be delayed or cancelled. Traditionally, it has been assumed that the variability in the demand comes from the emergency patient. Interventions focused primarily on emergency departments have had limited success. However, repeated case studies have shown that elective admissions are often the major cause of variation as they are more unpredictable than the emergency admissions. In addition, the greatest variation is typically in the number of discharges. To have information about planned discharges 24-h in advance would allow a higher planning and an optimal bed assignment. Moreover, the discharge process should start at the point of admission in the case of planned admissions, as in some cases the estimated length of stay without a medical complication is known. Discharge planning allows for a better and quicker bed assignment in hospitals and the development of nurses and other staff working in discharge coordinator roles. In this sense, it has been proved that multidisciplinary teams can improve the delivery of health services and patient care. All admissions and discharges of the hospital should be centrally managed and planned, as single-department solutions may create or worsen bottlenecks in other areas.

During the hospitalization process, patient flow is a strategic aim for the healthcare enterprise. Hospitals can combine process management with information technology to redesign patient flow for maximum efficiency and clinical outcomes.

AIM: The aim of this study was to evaluate the process flow in admissions and discharges in the hospital to bring out the reasons for delay which can be worked upon to reduce the delays.

TABLE OF CONTENTS

ACRONYMS

- AHU Air Handling Unit
- CRE Customer Relations Executive
- CSSD Central Sterile Supply Department
- DEPT. Department
- DNS Deputy Nursing Superintendent
- DR Doctor
- DS Discharge summary
- ECG Electro-Cardio Gram
- HR Human resource
- HRD Human Resource Department
- HRS Hours
- IP In Patient
- LAB Laboratory
- MED Medicine
- MO Medical officer
- MRD Medical Record Department
- OPD Outpatient department
- OT Operation Theatre
- PRO Patient Relation Officer
- PT. Patient
- RADIO Radiology
- TPA Third Party Administrators

ORGANIZATION PROFILE

History

Zulekha Hospital, Sharjah, the most comprehensive super specialty hospital focusing on Cardio, Gastro, Renal Sciences, Neonatal and Critical Care is driven by the vision "To be the most efficient, competent and courteous providers of comprehensive healthcare in the world."

The institution not only provides world class healthcare technologies under one roof, but also pledges to develop a healthier society. We stand committed to provide value added innovative, consistent and continuously improving health and medical care to sustain and further improve clinical outcomes, patient safety & patient satisfaction.

Infrastructure and Facilities

120 bedded multi super specialty hospital in Sharjah, focusing on medical and surgical super specialties of neurology sciences , cardiac sciences, gastro sciences, renal sciences, critical care, Ortho-trauma, mother and child, ENT & ophthalmic and many more.

Vision and Mission

Vision

Zulekha Hospital is committed to be the most efficient, competent and courteous providers of comprehensive healthcare in the world:

Our Values

Honesty & Integrity
Privilege & Responsibility
Planning & Implementation
Quality Service & Continuous Improvement
Courtesy & Compassion

Mission

Zulekha Hospital is driven on mission "To provide easy accessibility to high quality healthcare"

FOCUS STUDY

General objective:

To study the patient Admission and Discharge process in Zulekha Hospital, Sharjah to reduce the delays in the admissions and discharges.

Specific Objectives:

1. To analyze the steps involved in the admission and discharge process and to find out the average discharge and admission time.
2. To root out the significant reasons of delay.
3. To recommend steps to reduce the delays.

Hypothesis:

1. Discharge is delayed beyond expected time-line.

2. Delay in discharge is due to delay in receiving the discharge summary.

Purpose of the study:

The main aim of the study is to find out the problems with the admission and discharge planning and to identify the areas of improvement and to develop recommendations in accordance with the organization for strengthening and improving the quality of services delivered.

Scope of the study:

The scope of this study is to analyze the steps involved in the admission and discharge of the patient of Zulekha Hospital and to improve the process by providing solutions and recommendations.

METHODOLOGY

Data collection method

- Primary data was obtained through:

    1. Time motion study
    2. Direct observations of the discharges process and recording of the critical activities.
    3. Interactions with nurses, billing, and other concerned staff involved in the discharge process.

- Secondary data was obtained through (Hospital Information Management System).

Data Collection Tool

- Manually followed the admission and discharge process.

Sample Size

- 80 admissions and 100 discharges

Study design

- Descriptive cross sectional study

Study duration

- From 8th May to 14th May, 2014

The study is divided in following stages:

- Study of the admission and discharge process in the I.P. Department in 'Zulekha Hospital'.
- Survey to study the steps in patient's admission and discharge from the hospital, comparing with expected time-lines and the expected improvement in the process.
- Compilation of the data and data analysis.
- Finding the bottlenecks in admission and discharge process, planning and proposing the recommendations.

Rationale of study:

- Prolonged waiting time in patient admission and discharge process leading to patient dissatisfaction.

Admissions and Discharge

Effective management of hospital beds and associated resources:

The effective management of hospital beds and associated resources is vital if the growing demand placed on hospital resources is to be met. Recognised impediments to patient "flow" in hospitals include:

- Difficulties in gaining access to inpatient beds (i.e. insufficient bed capacity).
- The resulting congestion within Emergency Departments (EDs).
- Inappropriate retention of patients in hospital beds.

The active management of admissions and discharges should ensure that:

- Beds are available for emergency admissions.
- The quality and appropriateness of patient care is high.
- Patients get the care they require when they are discharged from hospital.
- Scarce financial resources are not wasted and value for money is achieved.

Quality and Safety:

To ensure that all patients admitted to hospital receive the high quality and safe service to which they are entitled, resources must be efficiently and effectively utilised. Services are organised so that patients, depending on their needs, can move smoothly between emergency care and the best and most appropriate inpatient care, primary care and continuing care. Effective quality assurance and safe care are essential rights of all users of the health services. Achieving the standards will ensure that all hospitals are providing such care.

Elective admissions and Emergency admissions:

An emergency hospital admission is defined as one that is not planned and which results from trauma (injury) or acute illness which cannot be treated on an outpatient basis. Achieving the correct balance between the competing demands for hospital beds by elective and emergency cases of varying complexity is likely to remain a considerable challenge for the future.

Discharge planning:

Discharge from hospital is a process, not an isolated event. It involves the development and implementation of a plan to facilitate the transfer of an individual from hospital to an alternative setting where appropriate. Components of the system (family, carers, hospitals, primary care providers, community services and social services) must work together. Activity and performance standards should be frequently monitored and there should be openness to innovative solutions. This will ensure that the whole systems approach to admissions and discharges is positively reflected in the patient's experience. Hospitals should have their own operational policies for discharge planning. Staff should to be involved in the development and regular review of these policies. As with admissions, the standard of discharge management impacts on hospital efficiency, quality and safety of patient care.

Good discharge management is vital to ensure:

- Patient satisfaction;
- Bed availability for emergency and elective admissions; and
- Quality of patient care remains high.

REVIEW OF LITERATURE

Historical background

1. The professional practice component of discharge planning goes beyond the mere application of the organization's procedures. It involves attention to the particulars of each case in light of the organization's principles. It also requires the ability to understand operations and how to intervene effectively within the organization (Marcus 1987). "The optimally successful discharge is one that meets the goals, needs, and objectives of as many of the parties concerned as possible, to the greatest extent possible." To understand the process, identify the various interests, understand their objectives and determine their measures of success. The discharge planner mediates between the individual's needs and the system's policies. The discharge planner should know and understand the health care system, appreciate its impact on the patient and family, and negotiate plans that work optimally for all. Clinical and organizational issues are inseparable.

2. In a Cochrane Database Systematic Review of discharge planning from hospital to home, Sheppard et al (2003) report than nearly 30 per cent of all hospital discharges are delayed for non-medical reasons. The causes of such delay, reported by the U.S. Department of Health in 2003, include inadequate assessment resulting in, e.g., poor knowledge of the patient's social circumstances; poor organization, e.g., late booking of transport; and poor communication between the hospital and providers of services in the community. The review failed to detect a significant impact on length of stay or readmission rates for elderly patients with a medical condition for discharge planning compared to usual care. Some trials found higher patient satisfaction to be associated with discharge planning. The impact of discharge planning on health outcomes is uncertain. One study found hospital total costs were significantly lower with discharge planning for patients with a medical condition (e.g., readmission at two weeks), but no different for surgical patients. Another found lower costs for laboratory services for patients receiving discharge planning.

3. Discharge planning is a process that facilitates each patient's continuity of care following an episode of hospitalization. It involves a multidisciplinary approach to assessing, coordinating and providing for patients needs in conjunction with the patient, career, hospital and community service provider (including treating medical practitioner and general practitioner), to facilitate the patient's discharge from hospital and return to the community the processes required for effective discharge planning.

   - There should be an organization led commitment to manage all hospital beds.

   - Resources such as a discharge co-coordinator to ensure delays are minimized and extensive patient and family involvement in decision making processes.

   - Referrals to physiotherapy, occupational therapy should be identified as early as possible with access to aids and appliances as appropriate

   - Discharge documentation should be audited to ensure compliance with hospital protocols.

4. In a project titled “Barriers to effective discharge planning: a qualitative study investigating the perspectives of frontline healthcare professionals” studies have shown that effective discharge planning is one of the key factors related to the quality of inpatient care and unnecessary hospital readmission. The perception and understanding of hospital discharge by health professionals is important in developing effective discharge planning.

5. In “Discharge from Hospital Literature Review” Prepared for the discharge Planning and ALC Policy Task Team November 2006: Discharge planning is critical to ensuring rapid, safe and smooth transition from hospital to another care environment; it involves the social work functions of high risk screening, social work assessment, counselling, locating and arranging resources, consultation/collaboration, patient and family education, patient advocacy and chart documentation; it is a complex activity requiring a wide range of clinical and organizational skills to address needs of patient, family and health care system and to promote the optimum functioning of patients, families and support systems. Delay factors may be internal (waiting for discharge summaries; waiting for declaration of chronicity; transfer between nursing units; lack of documentation of discharge plan); external (lack/delay of access to rehabilitation, convalescence, palliative care, home care resources, long term care facility); and psychosocial (waiting for family adjustment to illness, waiting for patient function to improve, unrealistic expectations of patient/family, social isolation of patient, inadequate support at home, lack of concrete medical aids, transportation for treatments, financial, family burden prevents discharge home).

6. In a study titled “Effective Discharge Begins at Admission - A Patient Flow Logistics Coordination Model “Health care is characterized by fragmentation — among disciplines, among departments, among organizations, and among geographic locales — while those it serves depend on coordinated effort. The system propagates waste of time, resources, and good will.” Nowhere is there a more classic display of interdependent components lacking ‘system aim’ than in discharge planning and placement.

DISCHARGE PROCESS IN THE HOSPITAL

Introduction

Discharge from the hospital is a point at which a patient leaves the hospital and either returns home or is transferred to another facility such as one for rehabilitation or to a nursing home. Discharge involves the medical instructions that the patient will need to fully recover. Discharge planning is a service that considers the patient's needs after the hospital stay, and may involve several different services such as visiting nursing care, physical therapy, and home blood drawing.

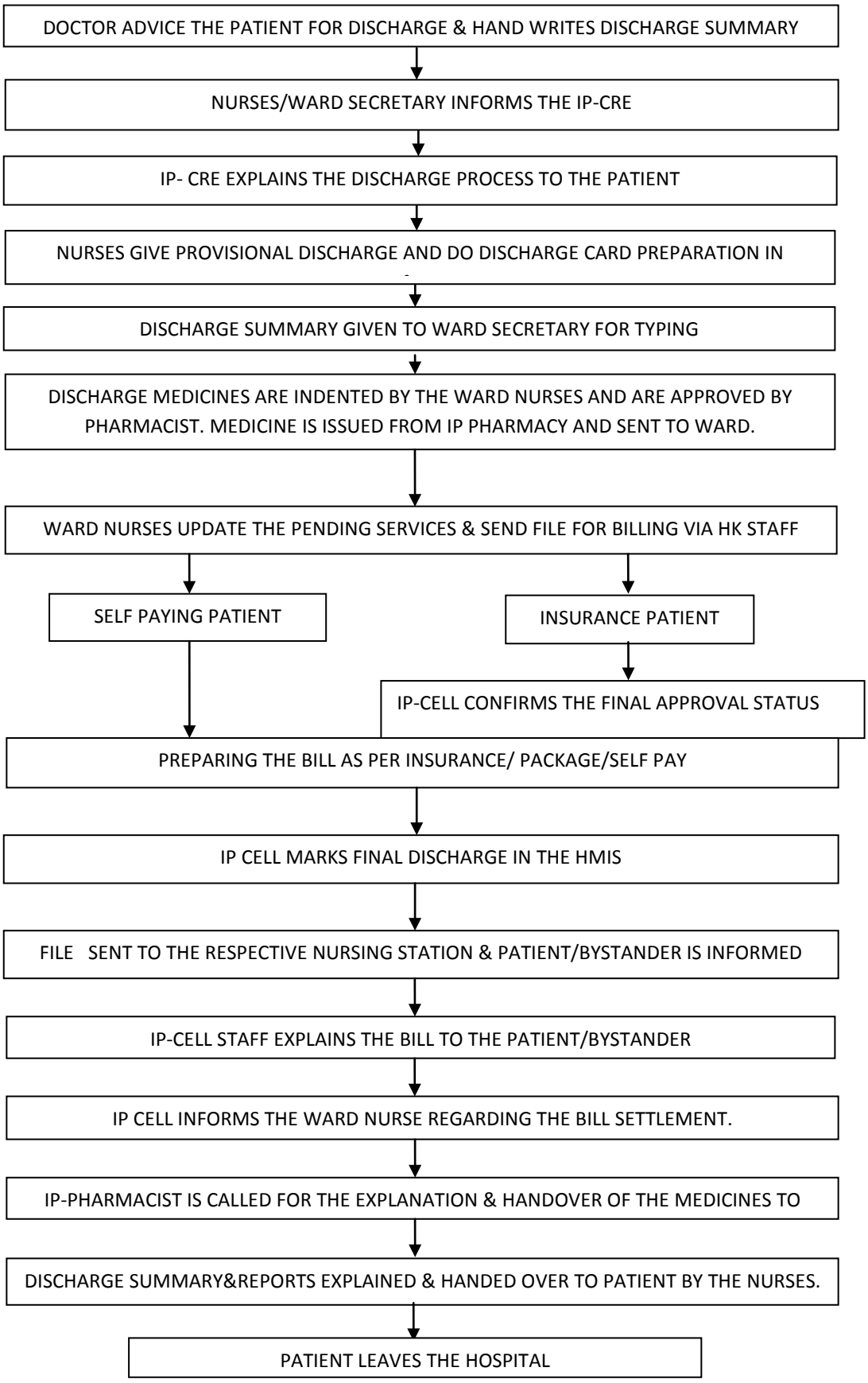
Discharging patients from the hospital is a complex process that is fraught with challenges. Hospitalization is often a short-term event, so ideally the determination of the patient's discharge plan begins upon their admission to a hospital.

Based upon their presenting condition, information that could affect the discharge plan is noted in the patient's medical record so that it is taken into account when discharge is being scheduled.

The key principles of effective discharge planning

- Start planning before or on admission.
- Identify whether the patient has simple or complex needs.
- Develop a clinical management plan within 24 hours of admission.
- Coordinate the discharge or transfer process.
- Set an expected date of discharge within 48 hours of admission.
- Review clinical management plan daily.

DISCHARGE PROCESS FLOW



Nursing responsibilities for discharge

Whilst the responsibility for deciding whether a patient is clinically fit for discharge rests ultimately with the primary Consultant (MRP), the responsibility for co-coordinating a smooth discharge process, that meets with the patient's needs, rests with nursing staff.

Every discharge should be treated as unique to the individual patient it concerns, but the following points should be considered:

1. As soon as possible after the admission, a full assessment of the patient's potential discharge needs should be undertaken.
2. Every patient should have a named nurse who is responsible for facilitating their discharge. He / she should ensure that the nursing team is aware of the activities required to be undertaken to complete a smooth discharge.
3. Good communication is vital. The patient must be integral to their discharge planning and should be fully involved and informed of planning and progress throughout the whole process.

Responsibilities of hospital pharmacy department

The role of the pharmacy department is to provide discharge medications and advice, where applicable, for all patients being discharged. The following points should be considered when planning the patient's discharge:

1. Nursing staff should ensure that the patient and if required appropriate relatives/ attendants are given a full explanation of the medications that have been given for discharge (including the purpose of the drugs, why they have been prescribed and the dose to be taken and when). The services of the pharmacist should be utilized if there are any doubts regarding discharge medications.
2. The amount of tablets/medicines to be dispensed to the individual patient on their discharge will be decided by the consultant.

Sample Size

Total discharges = 99

The following table provides details about 99 discharges with time as parameter.

Sr. No.	Pin	Patient Name	Doctor Name	Date of Discharge	Time Advised	Physical Discharge	Discharge time
1	ZHS0431069	SUAAD M AL DUBAILI	HUMERA RAEES	12/5/2014	20:30	22:30	2:00
2	ZHS0461025	JANNETT BENSON	MOHD. ASIF	12/5/2014	16:15	18:30	2:15
3	ZHS0488825	OLA KHALID ALI	SHOUKAT ALI MEMON	12/5/2014	9:00	12:50	3:50
4	ZHS0548023	KRUTHIKA KONNI	RAMESH PATIDAR	12/5/2014	15:30	21:30	6:00
5	ZHS0544240	AREEJ HOSSI MOHAMMED	NADA ABBAS	12/5/2014	9:00	13:00	4:00
6	ZHS0361550	MUNSHI MUBARAK FAZAL	SUBRAMANIAN	12/5/2014	12:30	13:30	1:00
7	ZHS0409879	NEHAD ABDELGHAFFAR	JAGPREET SINGH	12/5/2014	12:30	15:30	3:00
8	ZHS0473972	JAMILA RAHIM BUKSH	NAMITA PAWAR	12/5/2014	10:30	13:30	3:00
9	ZHS0548192	MARWA OMER AHMED	SHOUKAT MEMON	12/5/2014	9:30	12:30	3:00
10	ZHS0548231	NOOR UL AIN YASIR	HUMERA RAEES	12/5/2014	10:00	16:00	6:00
11	ZHS0525443	MUNEEBA FATIMA BILAL	MOHD. ASIF	12/5/2014	20:00	23:00	3:00
12	ZHS0535250	SRIKANTH MADABUSHI	KAUSAR PERVEEN	12/5/2014	19:50	22:30	2:40
13	ZHS0333380	SADAF MUNAWWAR	VIDULA SHARMA	12/5/2014	10:00	17:20	7:20
14	ZHS0519929	EDWIN MERCADO	SAURABH SINGH	12/5/2014	7:10	12:45	5:35
15	ZHS0304383	MOHAMED ADEL ABD	HUSSEIN AL-KADIRI	12/5/2014	13:15	17:35	4:20
16	ZHS0548337	S/O SADAF MUNAWWAR	RAMESH PATIDAR	12/5/2014	13:25	17:00	3:35
17	ZHS0503938	JEMELYN DIGAMON	IRSHAD MAZHAR	12/5/2014	16:35	20:00	3:25
18	ZHS0548381	AKHEEL SHIHABUDHEEN	JAGPREET SINGH	12/5/2014	8:45	11:10	2:25
19	ZHS0384459	AMAANULLA BAIG	RAMESH PATIDAR	12/5/2014	14:30	17:20	2:50
20	ZHS0467926	RAMAKANT ASHOK PATEL	MUHANNED F.M.	12/5/2014	23:00	1:30	2:30
21	ZHS0435396	ARSHEEN YOUNIS	MASARAT MEHBOOB	12/5/2014	19:30	23:30	4:00
22	ZHS0373182	CYRUS RIJU	FARIDA	12/5/2014	13:05	16:30	3:25
23	ZHS0547500	SHARIF M. EID SHAKER	SAURABH SINGH	12/5/2014	21:20	23:55	2:35
24	ZHS0548499	MILI ABDUL JALEEL	BETTY JOHN	12/5/2014	20:00	21:00	1:00
25	ZHS0173174	SADIYA SYEDABDALLA	MASARAT MEHBOOB	12/5/2014	17:30	23:30	6:00
26	ZHS0537666	FUAD YUSSUF	ALI A.H JASIM	12/5/2014	19:00	21:00	2:00
27	ZHS0548542	FATIMA MOHAMED ALI	ALI A.H JASIM	12/5/2014	21:00	23:30	2:30
28	ZHS0547735	THUSHMIN DANUSHIKA	RAMESH PATIDAR	13/5/2014	9:30	14:30	5:00
29	ZHS0548046	D/O SABA SAFDAR	SHOUKAT AMEMON	13/5/2014	14:00	17:00	3:00
30	ZHS0543077	MUSTAFA AHMED ALI	T. SATISHKUMAR	13/5/2014	17:15	21:00	3:45
31	ZHS0520574	SAJIDA SAMSON	HUMERA RAEES	13/5/2014	14:15	18:15	4:00
32	ZHS0548182	REHAN KHAN	RAMESH PATIDAR	13/5/2014	18:00	20:00	2:00
33	ZHS0542462	SUPRIYA DATTA	HUMERA RAEES	13/5/2014	7:00	10:45	3:45
34	ZHS0548375	S/O SAJIDA SAMSON	MOHAMMAD KHALAF	13/5/2014	14:15	18:15	4:00
35	ZHS0417764	SADDIQUE AHAMED	JAGPREET SINGH	13/5/2014	15:30	19:30	4:00

Sr. No.	Pin	Patient Name	Doctor Name	Date of Discharge	Time Advised	Physical Discharge	Discharge time
36	ZHS0548384	S/O SUPRIYA DATTA	MOHAMMAD KHALAF	13/5/2014	11:00	10:45	23:15
37	ZHS0538487	ZEYNA RIAZ AHMAD	HUMERA RAEES	13/5/2014	18:00	19:15	1:15
38	ZHS0444761	LILAN ISLAM	FARIDA	13/5/2014	21:30	23:30	2:00
39	ZHS0548463	ANUSHKA SOOD	VIDULA SHARMA	13/5/2014	20:00	22:00	2:00
40	ZHS0548470	S/O ATEFEH MOHAMMAD	MOHD. ASIF	13/5/2014	14:00	15:00	1:00
41	ZHS0548471	HAMDAN JABER ALI	MOHD. ASIF	13/5/2014	11:15	14:30	3:15
42	ZHS0469014	SULTAN AFSAR	CHARANJEET SINGH	13/5/2014	9:20	11:58	2:38
43	ZHS0537239	NASEEM WAHID BHATTI	JAGPREET SINGH	13/5/2014	19:30	23:00	3:30
44	ZHS0548200	LAMA MOHAMMAD BASSAM	KHUDHER A. YASIN	13/5/2014	15:30	19:30	4:00
45	ZHS0548488	D/O JAVERIA YASIR QAZI	MOHAMMAD KHALAF	13/5/2014	12:00	15:00	3:00
46	ZHS0548219	AALIYA GHULAM MURTAZA	SHOUKAT ALI MEMON	13/5/2014	10:30	13:30	3:00
47	ZHS0492401	MONA FATHI KHALIL	NADA	13/5/2014	10:50	15:30	4:40
48	ZHS0548526	S/O MONA FATHI KHALIL	MOHAMMAD KHALAF	13/5/2014	12:30	15:30	3:00
49	ZHS0322352	ABDURAHMAN MOHAMMAD	AHMED TAWFIK	13/5/2014	19:40	21:00	1:20
50	ZHS0547789	SUMAN KHATRI	HUMERA RAEES	13/5/2014	20:00	22:00	2:00
51	ZHS0548553	S/O ZEYNA RIAZ AHMAD	FARIDA	13/5/2014	11:00	19:15	8:15
52	ZHS0547751	MURAYO MOHAMED	BETTY JOHN	13/5/2014	11:45	15:30	3:45
53	ZHS0544778	YATINDRA JAYANT	SAURABH SINGH	13/5/2014	15:00	18:35	3:35
54	ZHS0548244	MD DOULAT HOSEN	ARIF ADENWALA	13/5/2014	13:00	18:15	5:15
55	ZHS0548617	SHARMA AL SHAMSI	HUSSEIN	13/5/2014	14:20	16:20	2:00
56	ZHS0547948	D/O SUAAD M AL DUBAILI	MOHAMMAD KHALAF	14/5/2014	12:30	18:00	5:30
57	ZHS0447150	PRISCILLA ANTHONY	HUMERA RAEES	14/5/2014	9:00	16:00	7:00
58	ZHS0506505	MOHAMMED ABDUL MALIK	FARIDA	14/5/2014	14:00	17:40	3:40
59	ZHS0408250	FATHIMA ASNA JABAHIR	BETTY JOHN	14/5/2014	14:00	18:00	4:00
60	ZHS0442523	AIZA MUGHAL RAZWAN	SHOUKAT ALI MEMON	14/5/2014	9:45	15:00	5:15
61	ZHS0506234	JOBSEY MANU	BETTY JOHN	14/5/2014	16:55	22:00	5:05
62	ZHS0548031	MOHAMED OSMAN	HIBA WALEED	14/5/2014	23:30	2:00	2:30
63	ZHS0548323	AISHA MAJID	FARIDA	14/5/2014	16:00	20:00	4:00
64	ZHS0323271	SABAA ABDUL HASEEB	HUMERA RAEES	14/5/2014	8:40	12:15	3:35
65	ZHS0400880	MOHAMED ATEF ABDEL	MUHANNED	14/5/2014	15:30	19:30	4:00
66	ZHS0548516	S/O SABAA ABDUL HASEEB	MOHAMMAD KHALAF	14/5/2014	8:40	12:15	3:35
67	ZHS0548520	S/O PRISCILLA ANTHONY	MOHAMMAD KHALAF	14/5/2014	12:00	21:30	9:30
68	ZHS0548525	LIS HAAN DHAKAD	FARIDA	14/5/2014	16:30	19:50	3:20
69	ZHS0548552	S/O JOBSEY MANU	MOHAMMAD KHALAF	14/5/2014	17:00	22:00	5:00
70	ZHS0530172	KHALIL MOHAMMED	AHMED TAWFIK	14/5/2014	16:00	18:20	2:20
71	ZHS0281343	TAHA QAZI NAZIR	FARIDA	14/5/2014	10:57	13:00	2:03
72	ZHS0530628	REDA MOHAMMAD TAHA	HUMERA RAEES	14/5/2014	11:15	14:30	3:15
73	ZHS0459680	MUNAWAR IQBAL	SAURABH SINGH	14/5/2014	9:00	13:00	4:00
74	ZHS0516469	THETHARAPPAN	JAGPREET SINGH	14/5/2014	8:45	11:30	2:45
75	ZHS0515774	HIBA FUAD SHAHIN	HUSSEIN	14/5/2014	12:50	16:50	4:00
76	ZHS0540000	CHIRINE AMIN RACHED	HUMERA RAEES	14/5/2014	12:00	16:15	4:15

Sr. No.	Pin	Patient Name	Doctor Name	Date of Discharge	Time Advised	Physical Discharge	Discharge time
77	ZHS0548647	S/O CHIRINE AMIN RACHED	MOHAMMAD KHALAF	14/5/2014	12:00	16:15	4:15
78	ZHS0548500	UBDI DUALE ADDE	RAJEEV KUMAR	14/5/2014	14:05	16:50	2:45
79	ZHS0461245	ESSA MURAD HASAN	SAURABH SINGH	14/5/2014	15:00	18:05	3:05
80	ZHS0511218	AHMED MOHD ALI AL	ARIF ADENWALA	14/5/2014	16:45	19:15	2:30
81	ZHS0548208	NEHAD MOHAMMED DAHLAN	KAUSAR PERVEEN	15/5/2014	16:00	19:50	3:50
82	ZHS0548408	ABDULLAH SAGHEER	FARIDA	15/5/2014	20:30	23:15	2:45
83	ZHS0479563	MUHAMMAD SARIM	SHOUKAT ALI MEMON	15/5/2014	10:40	14:40	4:00
84	ZHS0453283	AMINA KHALFAN MOHAMMAD	SAMIA ROOHI	15/5/2014	11:30	14:00	2:30
85	ZHS0548561	SHABEER KARUVAKOD	MASARAT MEHBOOB	15/5/2014	19:45	23:30	3:45
86	ZHS0548576	ANGELA MIRIYAM PHILIP	FARIDA	15/5/2014	10:30	16:00	5:30
87	ZHS0548623	S/O FIRDOUS QAUDRI	SHOUKAT ALI MEMON	15/5/2014	10:00	18:30	8:30
88	ZHS0360249	SHAHISTA AZMI	HUMERA RAEES	15/5/2014	8:00	12:00	4:00
89	ZHS0545020	ZUBAIR ANJUM	SAURABH SINGH	15/5/2014	9:00	12:00	3:00
90	ZHS0502759	NOUF SAEED ISMAIL	LAYTH TALIB	15/5/2014	19:20	21:20	2:00
91	ZHS0259569	FAJER JABIR	MOHAMMED FAISAL	15/5/2014	9:00	13:10	4:10
92	ZHS0503482	AYESHA JEHANZAIB AHMED	SHOUKAT ALI MEMON	15/5/2014	13:30	15:00	1:30
93	ZHS0547481	HAYA MEHRIN NISHAD	MOHAMMED FAISAL	15/5/2014	10:00	14:30	4:30
94	ZHS0473949	JOHAN NINAN	SHOUKAT ALI MEMON	15/5/2014	11:20	14:25	3:05
95	ZHS0476839	AKRAM TAJ HAMED	MUHANNED	15/5/2014	16:30	19:00	2:30
96	ZHS0180146	SYED SHAH ABBAS	ABDUL MANAF	15/5/2014	19:00	20:40	1:40
97	ZHS0548826	GEOLIN THOMAS HERBERT	BETTY JOHN	15/5/2014	20:00	22:30	2:30
98	ZHS0451378	AHMED YASIN K	LAYTH TALIB	15/5/2014	17:08	19:25	2:17
99	ZHS0544674	SAMYOK HANG SUBBA	LAYTH TALIB	15/5/2014	19:50	21:30	1:40

The following table is showing average discharge time on each day, during study, and it can be observed that it ranges from 3:21 hours to 4:02 hours. Our desired TAT for discharge is 3:00 hours.

The delay time range is 21 min to 62 min.

Sr. No.	Date of Discharge	Number of Discharges	Average Discharge Time	Average Discharge Time During Study
1	12/5/2014	27	3:27	3:42
2	13/5/2014	28	4:00	
3	14/5/2014	25	4:02	
4	15/5/2014	19	3:21	

The average discharge time for all 99 discharges was 3:42 hours i.e. delay of 42 min.

Previous Data

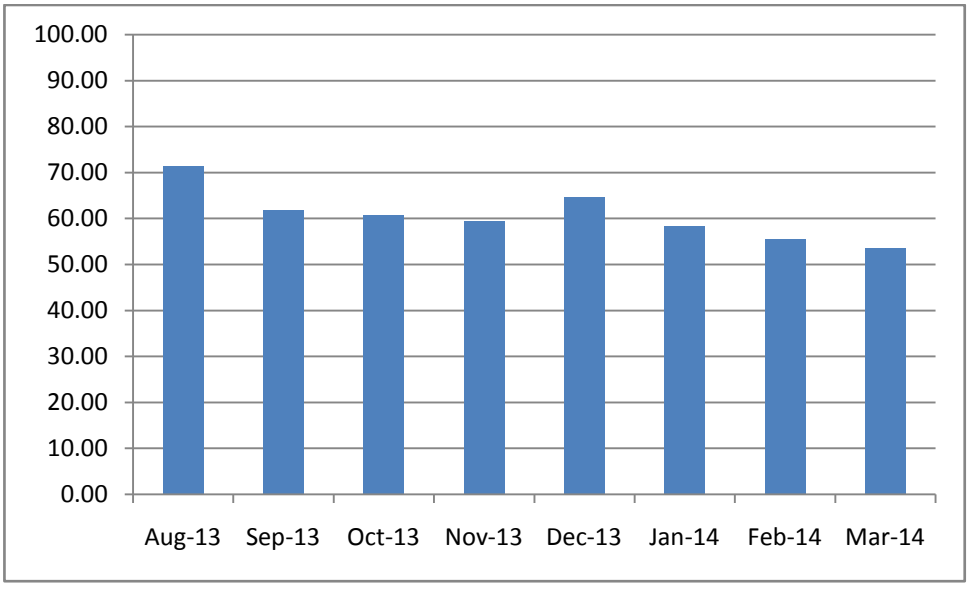
The following table and graph is showing the trend of Discharge TAT (Turn Around Time) for past few month.

% Discharges within TAT	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
% of population (sample group) discharged within 3hours	71.28	61.85	60.81	59.52	64.55	58.27	55.54	53.51

It can be seen from the data that TAT for Discharge is reducing MoM. Some of the reasons for the same are:

- Increase Work load.
- Decrease working efficiency of staff.
- Change in working environment.

Factual Inputs: The new building of Zulekha Hospital Sharjah has opened in October 2013 and the percentage of population discharged within 3 hours is showing a decline move after October 2013 only.



Graph 1: Percentage of population discharged within 3 hours.

To probe further to identify the declining trend in percentage of population discharged within 3 hours, following points are noted prominently:

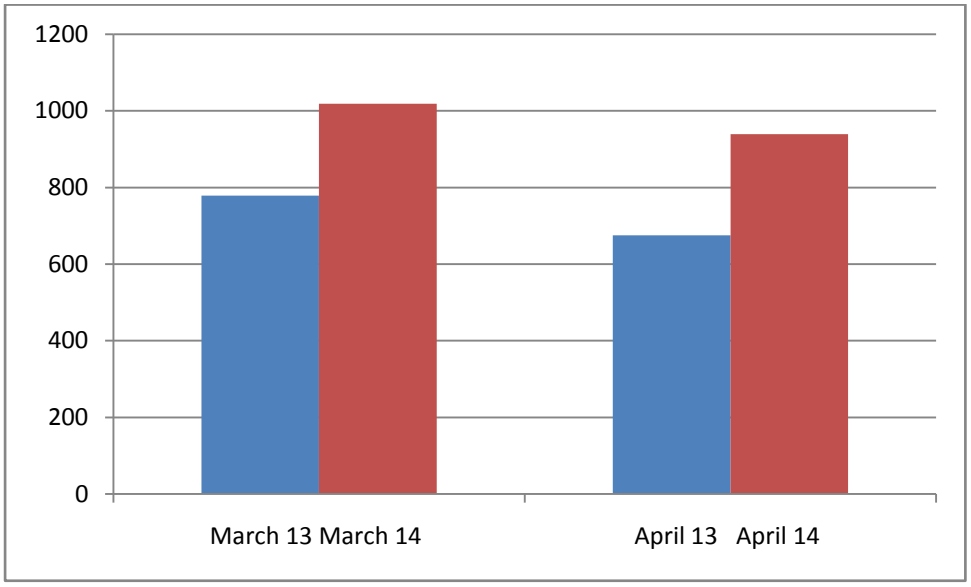
a. Increase in Work Load

One of the main reasons identified to support this declining trend in percentage of population discharged within 3 hours is increase in work load.

To analyze increase in work load I have used Year on Year (YoY) data. The following table and bar graph can explain the increase in work load.

	Mar-13	Apr-13	YoY	Mar-14	Apr-14
Increase Work load. (IP)	779	675		1019	939
Increase Work load. (OP)	21271	20727		26194	23486

Table 1: Year on Year comparison of IP and OP patient flow.



Graph 2: Year on Year comparison of IP and OP patient flow.

The table and the graph is self explanatory that hospital has not grown only in terms of size but also in terms patient turnover.

The YoY growth for March is 30.80 % and for April is 39.11 %.

	March 13 to March 14	April 13 to April 14
Percentage growth in IP patient flow	30.80%	39.11%

Table 2: Percentage growth year on year for March and April.

Conclusion: With the good news of growth it has also put forward challenge in front of its management to provide quality healthcare in on a bigger than previous ground.

Study Findings:

When discharges were classified for the reason of delay it was observed that most of the delay was due to delay in transport of file from one stage of discharge to other. Following table is showing reason of delay with respective percentage of cases of the same.

Study Results (Discharge)		
Sample Size	99	
Average Time around Time	**3:42**	
	No. of discharges	Percentage
Within 3 hrs (Acceptable)	54	54.00
Beyond 3 hrs(Non Acceptable)	46	46.00
Reasons for Non Acceptable	No. of discharges	Percentage
Waiting for bystander	5	10.87
Payment delay	4	8.70
Waiting for Report	2	4.35
Insurance delay	3	6.52
Billing delay	2	4.35
Delay at nursing Station	13	28.26
Delay to transport of file form one stage to other	17	36.96

Table 3: Average discharge time and reasons for delay.

Other reasons for delay in discharge were:

- Delay at nursing Station
- Waiting for bystander (put as non acceptable as it is responsibility of hospital to inform patient about his/her probable time of discharge, so that he can arrange things for himself)
- Payment delay

- Insurance delay

CATEGORICAL PRESENTATION:

To further understand the delay, the process is being studied in four parts i.e. time taken for approval for discharge to nurse completing file and sending it to billing desk, from billing to physical discharge and for bed preparation for next patient.

Phases of discharges	Time
Approved For Discharge To Clinical Discharge	01:12:00
Clinical To Financial Discharge	00:40:00
Financial To Physical Discharge	01:07:00
Bed Preparation Time For Next Patient	00:43:00
Total Time Taken	03:42:00

Table: indicates the average time taken to complete various phases of discharge from various areas of hospital.

REASONS FOR DELAY:

The reason for delay is then classified to patient related issues and to hospital related issues. It is been

HOSPITAL RELATED ISSUES

- Delay by nursing station
- Delay by housekeeping staff
- Non-communication by billing department
- Non-communication by nursing staff
- Shortage of staff

DISCUSSION:

Among the 100 samples taken, 54% discharges were within the time frame whereas 46% were delayed with the average standard time. The average standard time of discharge was 180 minutes, but the study showed 222 minutes i.e. discharges was late by 42 minutes on an average.

For study purpose, further divides the discharge process into 3 different phases and set an average standard time for each of the phase for all cases. For various stages the average processing time is, marked for discharge to clinical discharge is 72 minutes, clinical to financial discharge is 40 minutes and financial to physical discharge was 67 minutes and the total average time taken was 220 minutes in which there was delay of 40 minutes. There were different

reasons for the delay of discharge process. The different reasons were found in the different phases of the discharge:

- Delayed entries by nurses in Medical Record files
- File kept at waiting at nursing station to forward it to billing desk.
- All affairs are not running parallel and there is lack of coordination in different departments because sometimes status of patient is unknown (whether cash or TPA; planned or unplanned).
- Patient usually becomes restless on seeing final bill, leads to their unwelcomed queries resulting in delay in discharge.

RECOMMENDATIONS

1. Increase Staff/Training of current staff.

1.1 Shortage of Housekeeping staff.

- Housekeeping staff is not sufficient for speedy disposal of file from one stage of discharge to other.
- Unavailability of housekeeping staff to collect and forward file from one stage to other leads nurses themselves to facilitates file movement. Nurses needs to leave nursing station for the same which further leads to time delay in her other job responsibilities.

1.2 Shortage of IP Insurance staff.

- There is only one staff to take care of all IP insurance related issues like:
    1. Taking approvals of all IP insurance patients.
    2. Follow up with insurance companies in case if approval needed to be extended or amended.
    3. Taking discharge approvals, case on case basis (if not taken at time of admission)
    4. Handling quires of patients/billing desk stay about status of various services inclusive or not under particular insurance.

For handling all this issue at least two staff should be there at one movement of time.

If approval for discharge is awaited from insurance company then this stage is most time consuming in discharge cases.

- ❖ One more staff can be accommodated on 10^{th} floor reception area. Presently one ward secretary and IP billing staff is seating on 10^{th} floor reception.

- ❖ 10th floor reception counter should be modified by placing glass on reception platform, as like ground floor cashier desk with proper barricading from both sides.
- ❖ Three staff i.e. IP billing co-ordinator, IP insurance co-ordinator and ward secretary can be easily accommodated on 10th floor billing desk.

2. Dividing Job Equally

After making above said arrangement; we will be having

- Two IP admission and billing staff on ground floor with one IP insurance coordinator and one CRE on 8th floor and
- One IP admission and billing staff, one IP insurance coordinator and one ward secretary on 10th floor.

Proper distribution of work load can be done in order to prevent concentration of work load on one staff, fast service with improved quality.

8th floor staff	Number of persons	Will take care of patients of
IP Admission & Billing staff	2	ALL but 10th floor cases
IP Insurance Staff	1	8th floor, NICU & ICU cases
CRE	1	All IP cases
10th floor staff		
IP Admission & Billing staff	1	10th floor
IP Insurance Staff	1	9th & 10th floor cases
Ward Secretary	1	All IP cases

Table 5: Showing distribution of work load for IP.

- ❖ All nursing and housekeeping staff should be made aware of this work load distribution.
- ❖ CRE should be made responsible for coordination.

3. Camouflage Discharge

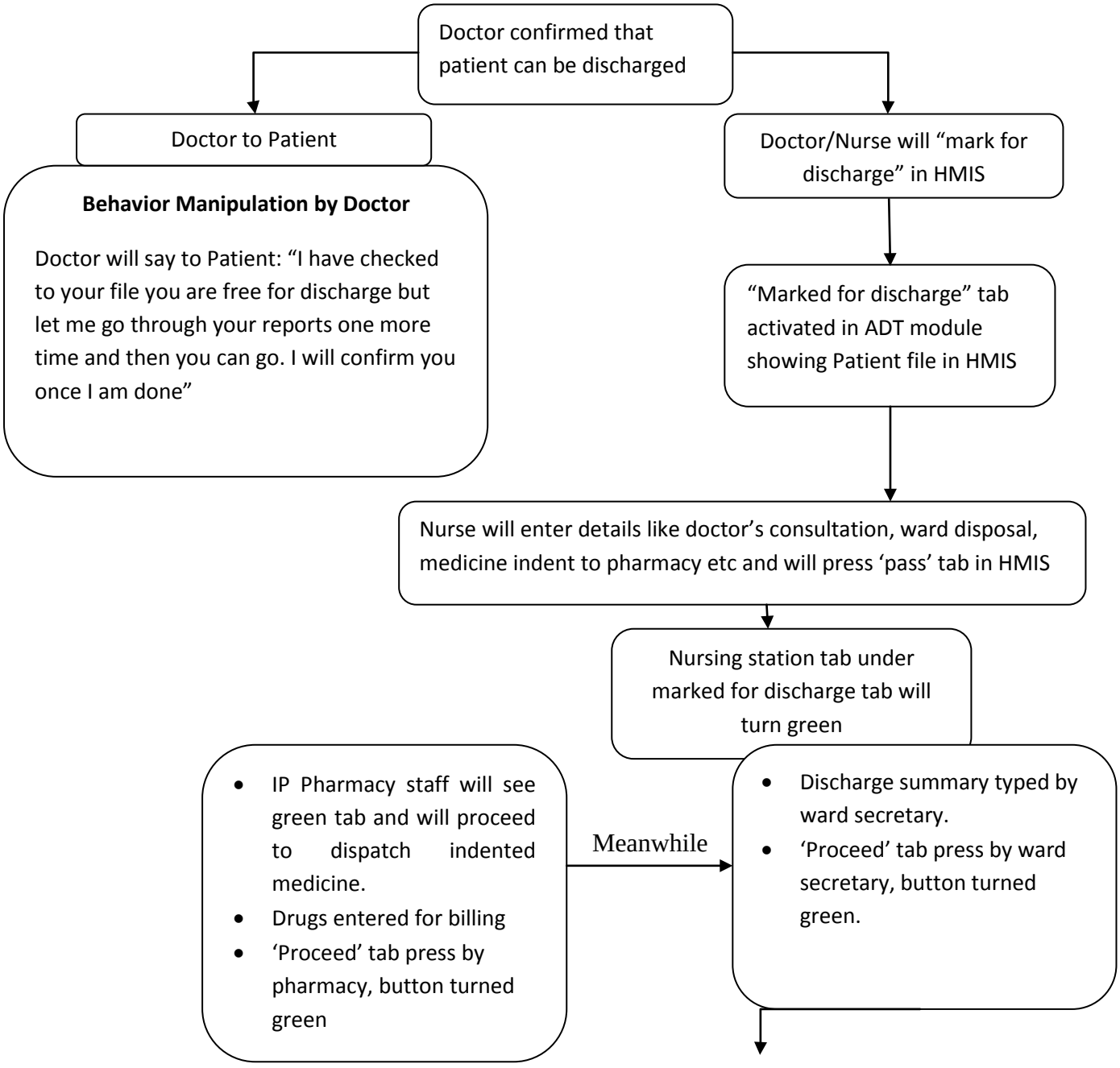
Camouflage discharge is the process of manipulating discharge system so that patient will feel that he got instant discharge, but discharge TAT remaining same.

It includes some behavior manipulation techniques and some changes in HMIS to produce feeling to patient that discharge was given just in few minutes after doctors said for the same.

Process flow: Camouflage Discharge

"Mark for Discharge" a new tab to be introduces under ADT module of HMIS with access of the same to IP Billing desk, IP Admission and Discharge desk, IP Insurance desk, Ward Secretary CRE and Admin.

This tab will provide information like discharge summary, patient billing information, drugs indent, insurance status.



- Discharge summary verified, corrected if needed, and nurse will turn ward secretary tab green form pink.
- File sent for billing

↓

- Billing desk check for any discrepancies and will proceed for final billing.

↓

IP Pharmacy staff will handover medicine and will explain about dosages to patients.

⟺

- IP billing and insurance part completed
- Discharge summary completed
- Final unsettled bill is prepared for settlement.

↓

All tabs turned green

↓

- An automated text massages mentioning “Doctor has approved for your discharge. Kindly proceed to billing desk for final bill settlement. Thank you for choosing Zulekha hospital as your health care provider” will be sent on patients and bystanders mobile

Following images will help for better understanding of camouflage discharge process.

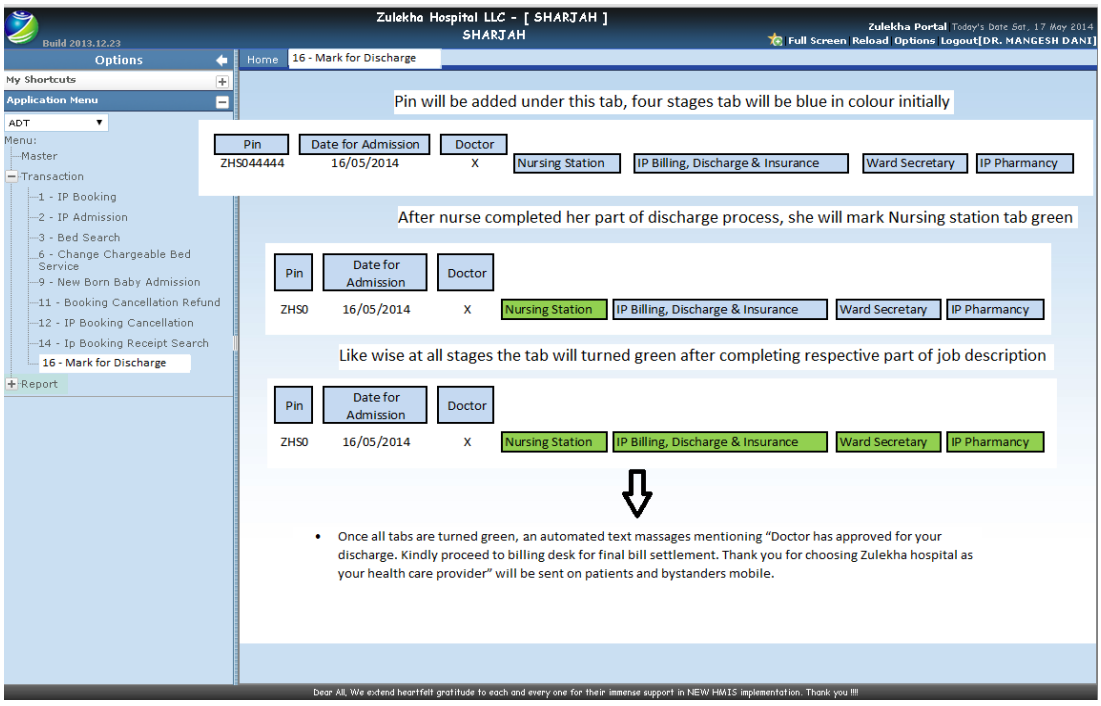


Image 1: Mark for discharge tab (Camouflage discharge process)

4. Other Recommendations

- A list of planned discharges should be sent to respective departments/ staff after the consultants round in the evening. All probable discharges should be communicated to departments to avoid clashing of services to be provided during the discharge.

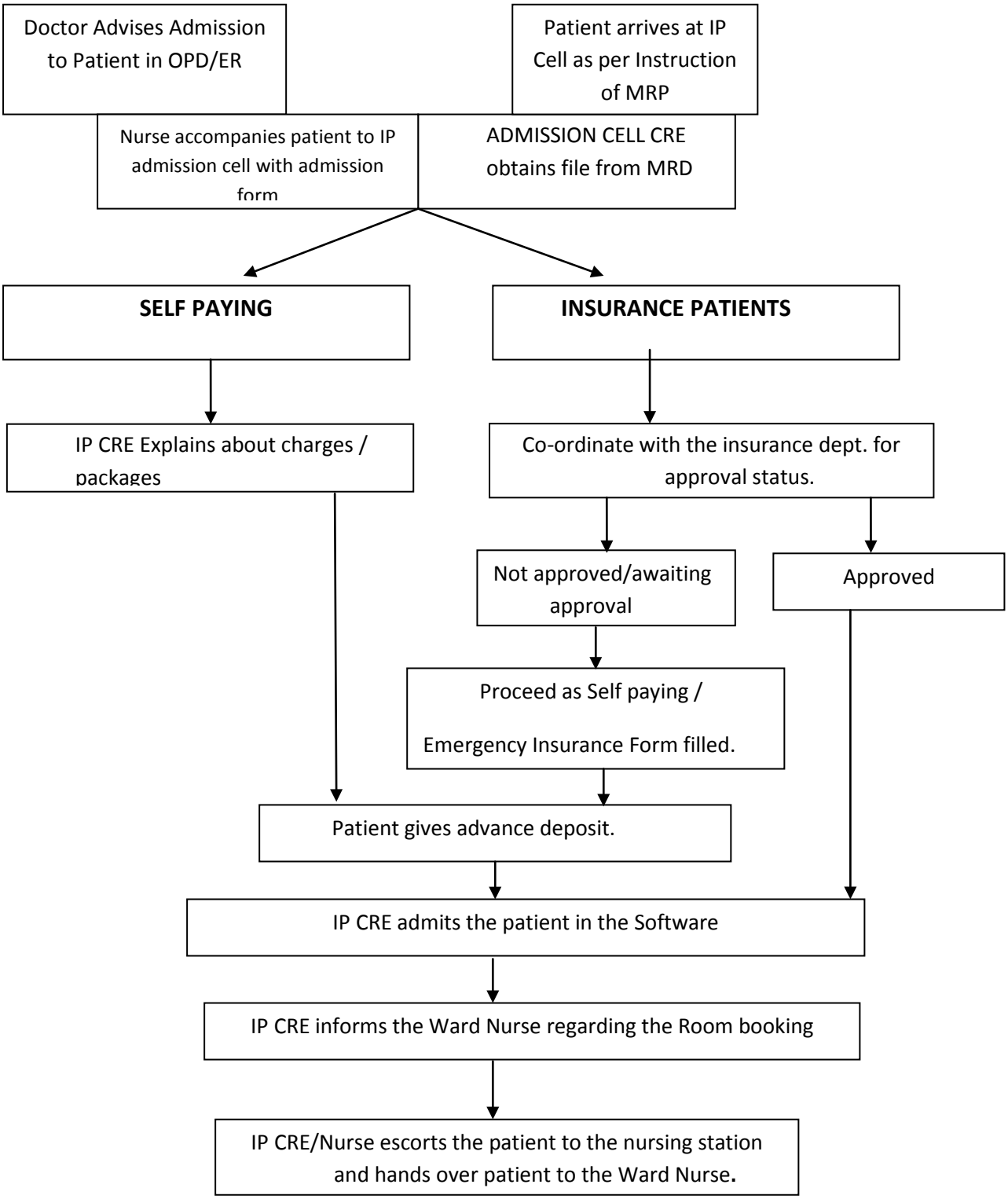
- The nurse in-charge should take responsibility and coordinating of the below mentioned things:
  a) Consultant visits should be updated timely after the consultant visits on the floors. The visits should be entered in the system by the shift in-charge and checked by the nurse in-charge.
  b) Nurse in-charge should coordinate with the billing staff and the investigations should be checked with reports received of the tests.
  c) Collection/Printing of all the reports of the patients a day prior to the discharge, entry of all the consumables at the end of the day monitored by the nurse in-charge.

- Laboratory staff should start preparing all the reports of discharge patients communicated by the nursing staff one day prior to final discharge. All the processed reports should be kept ready and handed over to respective nursing station by 7:30 in the morning.

- To avoid house-keeping disturbances to nurses, housekeeping supervisors should be instructed to be on the designated floors so that they can handle all house-keeping related issues of the patients. This will make nurses to focus on their core activities and reduce the overwork.

ADMISSION PROCESS IN THE HOSPITAL

ADMISSION PROCESS FLOW



General Key Findings

Admissions:

Admissions that take place after OPD registration and on consultation with the consultant are direct or planned admissions through IPD and those that are admitted through emergency for eg: RTA, are admissions through emergency. Planned admissions are those that happen in cases where treatments, surgeries and procedures are planned in advance. Before getting admitted, it would be prudent to get an estimated cost of treatment from the treating doctor. Patients opting for a treatment package are requested to deposit full amount on admission.

Salient Features of the Accident & Emergency Unit:

- 24-hr Emergency Service with Trauma care based on advanced TLS.
- Separate entrance with resuscitation room equipped for emergency care with ventilators, defibrillators, central lines for gases, crash cart & procedure room.
- Highly trained trauma team of doctors, nurses & paramedics.
- Equipped to deal with mass casualties.
- Specialist likes Orthopaedic surgeons and others are available 24 hours on call.
- Code Blue service in patient of Cardio-Respiratory Collapse within the hospital.

Patients admitted in an emergency may be kept under observation in the Accident & Emergency area for some time and then shifted to the designated ward for further treatment.

Sample Size

Total admissions = 80

The admission process has been segregated into 4 phases for study purpose:

- Time lapse in decision making
- Time lapse at admission counter
- Time lapse before reaching the ward
- Time lapse on reaching the ward

REASONS FOR DELAY

It is observed that maximum delay i.e. 32% arises due to patient, which is mainly the time taken in making up the mind for admission. 23% delays are due to the investigations which are mandatory to be conducted. 23% delays are when the patient bed is not ready either because the next patient has just vacated or the staff is negligent. 22% arises when no room is vacant for patients' admission.

DISCUSSION

Among the 80 samples taken the average time for admissions was found out to be 40 min. Maximum delay was found out to be done by patient before reaching the ward for admission. The different reasons were found in the different phases of the admission:

a) Room not vacant
b) Bed not ready
c) Delay due to tests
d) Patient delayed in making decision

All these were the major reasons for delay, out of which delay due to tests and decision making by the patient accounted for maximum delays. Some delays involved patient waiting for their allotted bed to get ready, as either the patient had just emptied the room or the staffs was not efficient enough to prepare the bed for next patient.

RECOMMENDATIONS

- Shortage of cleaning staff: Average time for room preparation is 43 min of which cleaning staff took 35 min and nurse took 8 min on an average.

  The number of cleaning staff per floor is 2 and average number of discharge per day during the study period was 35.25 i.e. each staff has to clean 6 rooms during her duty time.

  Following table is showing work load on cleaning staff with time as parameter.

Sr. No.	Date	Number of Discharges*	Number of cleaning staff (IP)
1	12/5/2014	32	6
2	13/5/2014	45	6
3	14/5/2014	33	6
4	15/5/2014	31	6

  * Data from HMIS (as cleaning staff has to work on other discharges which are not included for study)

Further points to be noted are:

- Cleaning staffs, who are preparing rooms, are having other job responsibilities also.
- Average time mentioned for preparing one room is direct time spent during cleaning. Hidden time like time to prepare cart for cleaning and time during transport of the same is also to be considered.

It is been observed that all other formalities for admission can be done in meantime for preparation of room for admission. So a fast discharge process will fasten admission process to.

Discussion:

It can easily be learned from above mentioned facts that increasing cleaning staff will directly reduce waiting time for admission and will help Zulekha Hospital to provide even better quality service.

a. The patients counselling for admission should be done promptly so that the patient takes immediate decision.
b. Effective training should be given to the staff to make them realize the importance of making bed ready for the next patient after the earlier patient has discharged.
c. To avoid unnecessary delays at the admission counter, only one attendant from patients' side should be present at the desk to complete the formalities.
d. Information about the current status of the rooms must be efficiently communicated amongst the staff members at the admission counter and the wards.

CONCLUSION

The admission and discharge process at Zulekha Hospital is an interdisciplinary, collaborative process across the continuum of care. It is a clinical priority for all health care team members. Although, the use of HIMS in the admission and discharge process is there but still the discharges in the hospital are being delayed beyond expected time.

Hospital bed demands sometimes exceed capacity, long time taken for discharge process leads to unnecessary bed occupancy, thus affecting both, the existing patients to be discharged and the new admissions in the hospital.

Mismatch between demand and supply of beds promotes delays and bottlenecks in the process. Therefore, it is essential to have an efficient and correct bed management in order to improve service delivery.

Long time taken for discharge process leads to unnecessary bed occupancy, thus affecting both, the existing patients to be discharged and the new admissions in the hospital.

Streamlining the admission and discharge process time is very important to reduce the waiting time thereby, increasing the customer satisfaction financial performance, hospital capacity and productivity.

REFERENCES

1. Nagaraju D (2005). Improvement of hospital discharge process by value stream mapping. Proceeding of 17th annual society for health systems conference(online) February held in Dailas, Texas, USA, University at Buffalo.

2. Bateni. M.R. (1995) Medical records teaching, Esfahan, Iran, Esfahan Medical Sciences University Publisher.

3. Discharge planning from hospital. Cochrane Database of System publisher, January26,2004. Issue1,CD000313.DO1:10.1002/14651858 CD000313. European Working Group on Operational Research.

4. University Lewin Group (2002). Emergency Department overload a growing crisis the results of the American Hospital Association Survey of Emergency Department and Hospital Capacity. Fallis Church VA, American Hospital association.

5. Derayeh,S. (2003). How can we apply methods and systems of analysis in patient discharge process in hospitals? Proceeding of fourth Seminar of Iran hospital Medical Records. Abstracts from January 2003 Tehran, Iranian Medical Records Association.

6. Eric Alper, MD,Terrence A O'Malley, MD,Jeffrey Greenwald, MD,hospital discharge, Topic 2790 Literature review current through: May 2013.This topic last updated**:** May 14, 2013 http://www.uptodate.com/contents/hospital-discharge#H25

7. NHS Institute for innovation and improvement 2008; Discharge planning, http://www.institute.nhs.uk/quality_and_service_improvement_tools/quality_and_service_improvement_tools/discharge_planning.html

8. Ben Sawyer, "Effective Discharge Begins at Admission" http://www.patientplacement.com/media/8506/effective_discharge_begins_admission_pps.pdf

9. **Berta Ortiga**, **Albert Salazar**; Standardizing admission and discharge processes to improve patient flow: A cross sectional study; BMC health services, volume 12.published 28th June 2012.

10. Christopher G. Maloney, Douglas wolf, A Tool for Improving Patient Discharge Process and Hospital Communication Practices: the Patient Tracker; AMIA Annu Symp Proc. 2007; 2007: 493–497.

11. .http:/www.patientplacement.com/media/8506/effective_discharge_begins_admission_pps.pdf

12. Commonwealth Department of Health and Aged Care; Managing beds better Balancing supply & demand; The NDHP-2 experience, July 1997 to June 1998.

13. House of commons health committee; Delayed discharges; third report of 2001-02 ,volume 1.

14. Trends of Outpatient Visits and Inpatient Admissions in Public Hospitals of Ahmedabad, India over last 24 years, By- Saha Chadrahi, Mayalankar Dileep.