



Dissertation Presentation

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Dissertation Topic

‘A study on rejection rate of high risk insurance companies using DMAIC Methodology’

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Background

UAE Healthcare

UAE is ranked 2nd in the world for quality of healthcare.

Government has spent 24% of its 2011 federal budget on healthcare development.

UAE Health Insurance

87% population ensured (1.5% of salary).

100% by 2017.

Dubai Insurance Law.

Mandatory health insurance law enacted, 2013.

Thumbay Hospital

1.1st JCI hospital in Ajman.

2.1800 OPDs and 40 Deliveries/day.

3.43 insurance companies.

Major Players in Health Insurance Sector



Aim

To develop an understanding of the process flow of insurance department, the claim management and analysis and reduction of rejection rate.

Objectives

1. To understand thoroughly the process flow of a health insurance claim in Thumbay Hospital, Ajman.
2. To analyze the rejection rate and reasons for rejection using DMAIC method.
3. To suggest ways to reduce the rejection rate of medical claims.

Research Questions

1. What is the process flow of insurance department?
2. What is the rejection rate in Thumbay Hospital, Ajman?
3. What are the reasons for rejection of medical claims by insurance companies?

Methodology

Study type - A qualitative retrospective observational study.

Area of study- Thumbay Hospital, Ajman

Study subjects – Patients seeking approval for pharmacy , inpatient and out patient services

Sample size - Convenient sampling, 5566 sample size of claims from August to October , 2015

Source of data - secondary data of medical claim processed and medical claims rejected will be collected from accounts department and HIMS of Thumbay Hospital, Ajman.

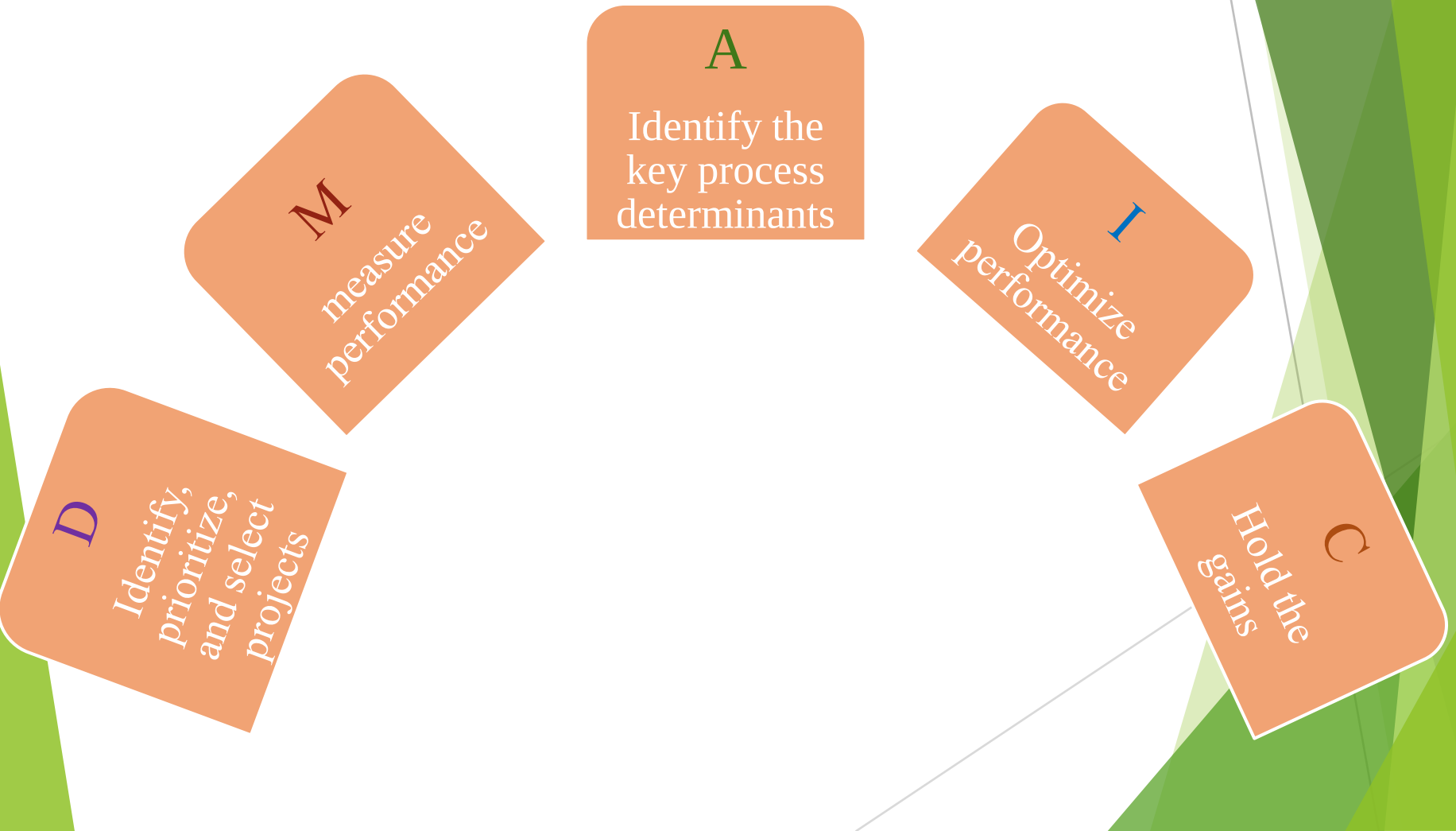
Data analysis- Statistical methods and DMAIC tool

Inclusion criteria –

1. Samples of patients availing inpatient, out-patient and pharmacy services.
2. Samples of Internal Medicine, Emergency, Gynecology, Pediatrics And Dermatology.
3. Samples of 5 high risk insurance companies Al Buhaira, Daman, Mednet, Oman and Nas (SR&WN).

DMAIC tool was applied for analysis

The Six Sigma DMAIC methodology can be thought of as a roadmap for problem solving and product/process improvement



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In the DEFINE stage of DMAIC tool:

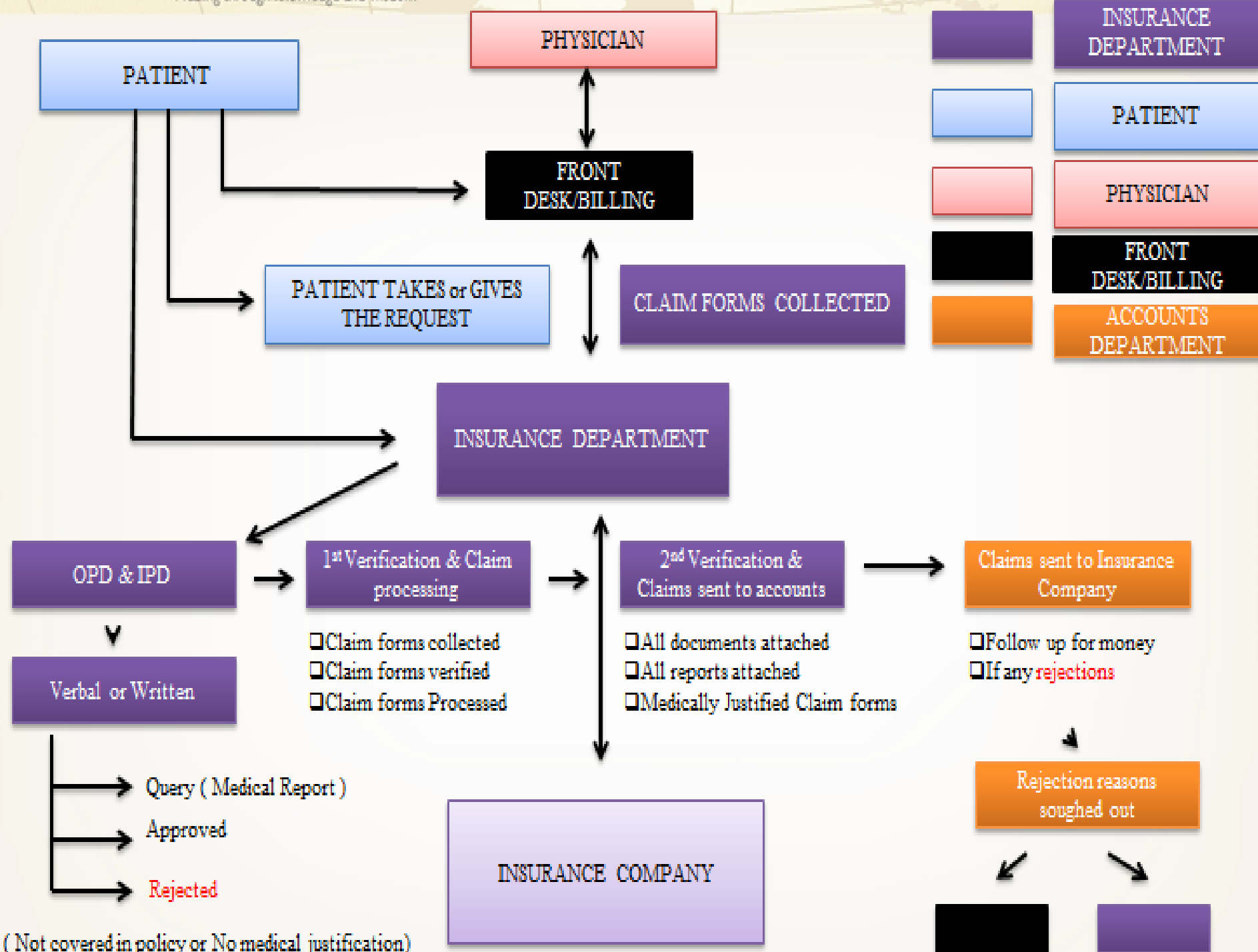
- ▶ Process flow of the insurance department is designed.
- ▶ KPI of high risk insurance companies is found justifying as why these 5 companies were chosen for analysis.
- ▶ Department Specific Rejection Rate (RR) using Pareto tool is calculated to justify why study was conducted on five departments only.

Process Flow

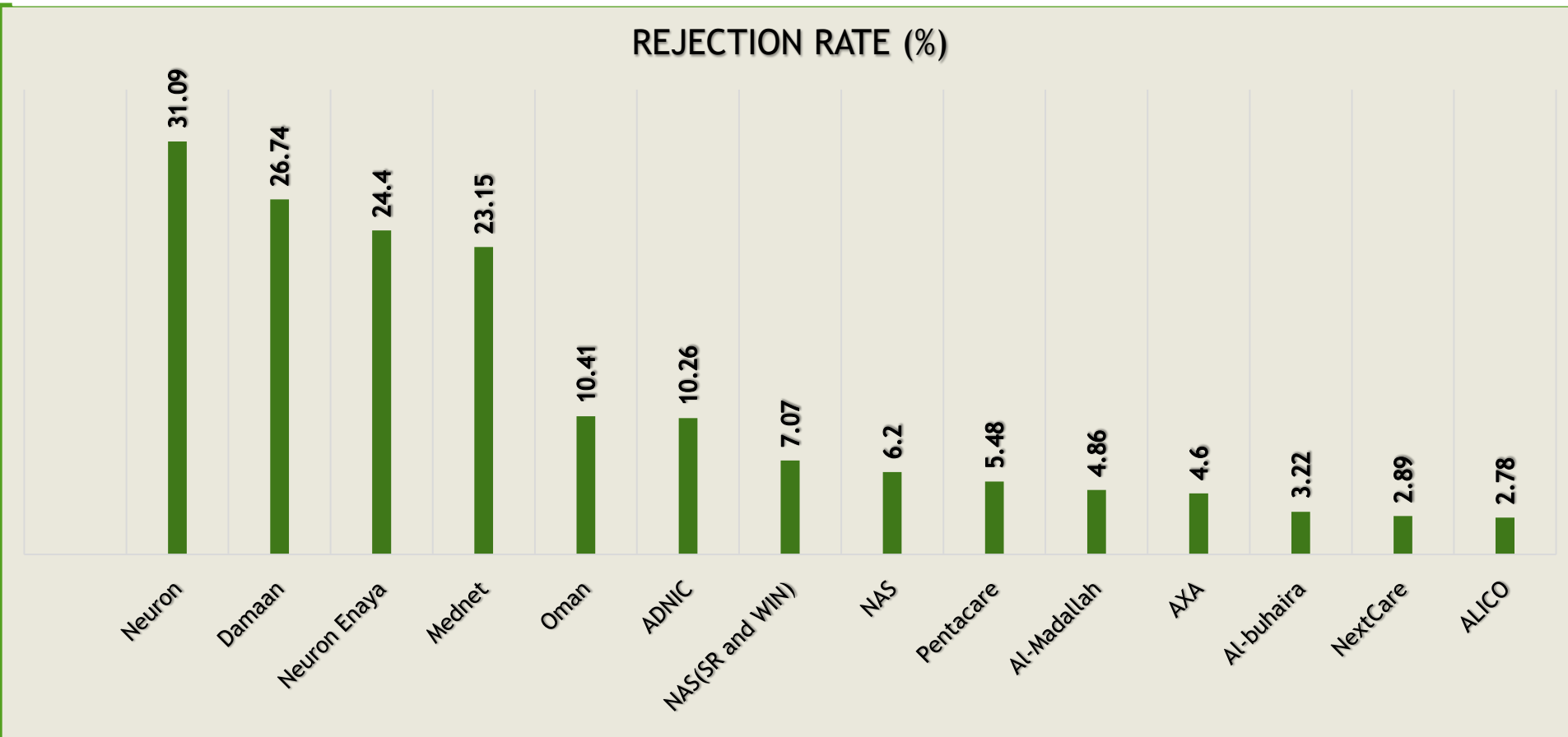
Basic steps involved in getting the approval process are listed below-:

- ▶ Obtaining approvals for out-patients & in-patients,
- ▶ Claim processing
- ▶ Claim verification,
- ▶ Final settlement & reconciliation for payments

After the in depth understanding and observational tracking of the system a process map was drafted to clearly visualize the process flow and services.



High Risk Insurance Companies for Thumbay Hospital, Ajman



Reference-HIMS Thumbay Hospital Ajman, 2015 data

- Rejection rate of insurance companies is a Key Performance Indicator (KPI) for the insurance department and should always be $< 6\%$ (Ideal).

- ▶ If, Rejection Rate of insurance companies on an average is $<6\%$ it is important to calculate it department wise to know the actual Rejection Rate in each department, so that department specific corrective measures can be taken.
- ▶ Pareto tool with the concept of 80-20 was applied to find the few significant departments which had alarming results i.e. had $RR > 10\%$ and required immediate attention.
- ▶ Departments with $RR < 6\%$ were in considered. department specific RR was calculated for the first time.

Calculations of overall Rejection Rate

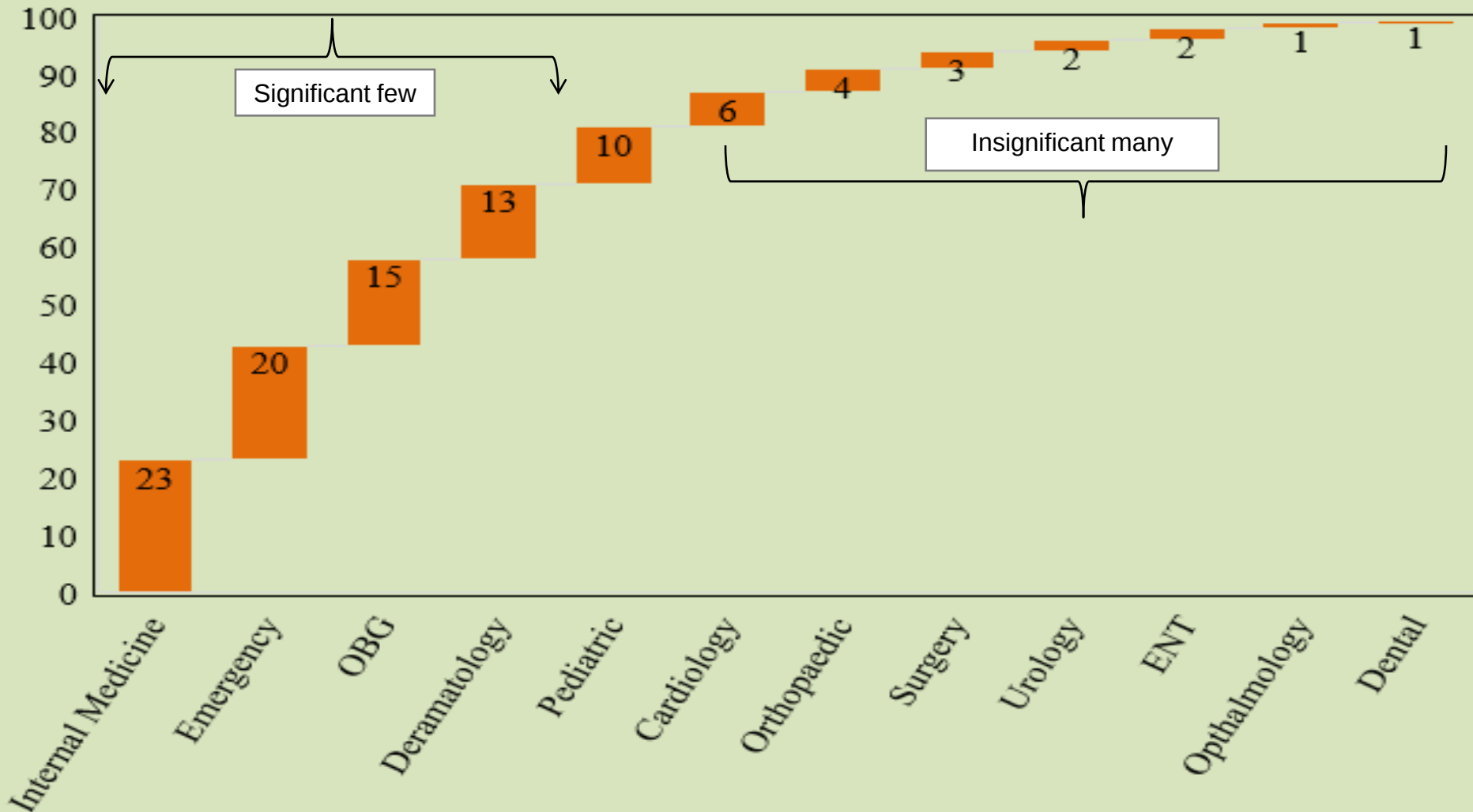
- ▶ All the processed claims and settled amount was compared from the received amount to calculate the rejection rate.

Months	August '15	September '15	October '15
Net Amount	1204087.25	1951445.9	1874062.73
Rejected Amount	236325.54	605995.43	539076.43
Rejection Rate	19.63%	31.05%	28.77%

- ▶ The monitoring of rejection rate leads to sudden attention towards need for financial monitoring of insurance department.

Department specific Rejection Rate of high risk insurance companies

**Average Rejection Rate (RR) of High Risk Insurance Companies
Department Wise**

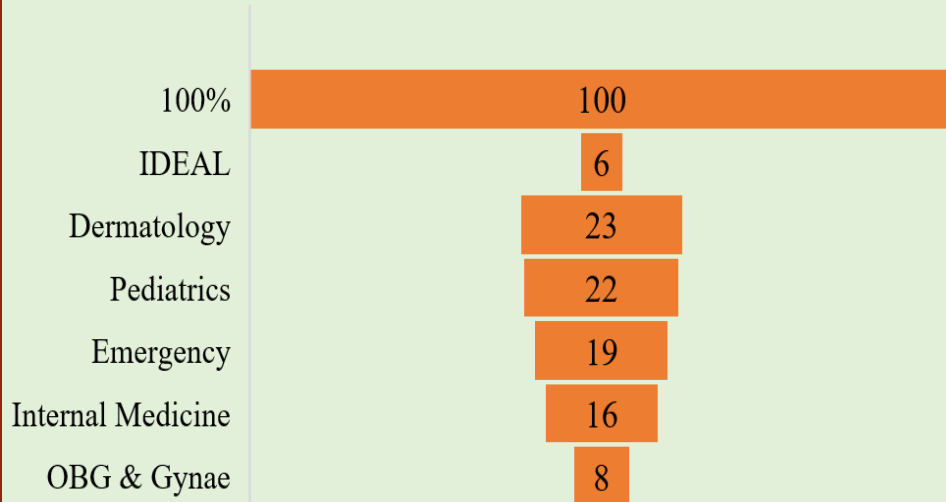


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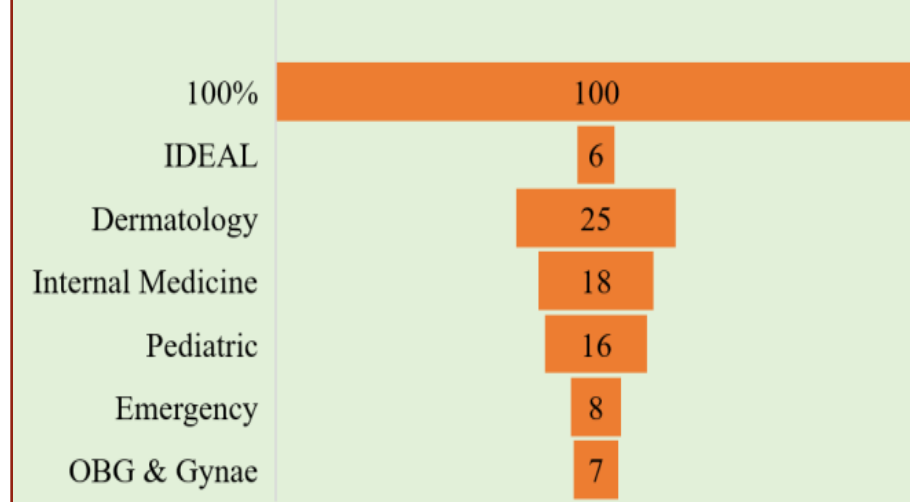
Department specific rejection rate

(Average of three months: August, September, October 2015)

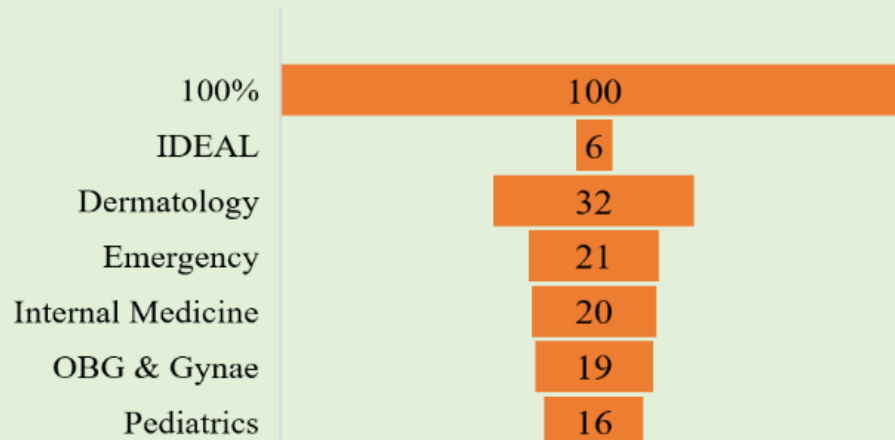
Al Buhaira

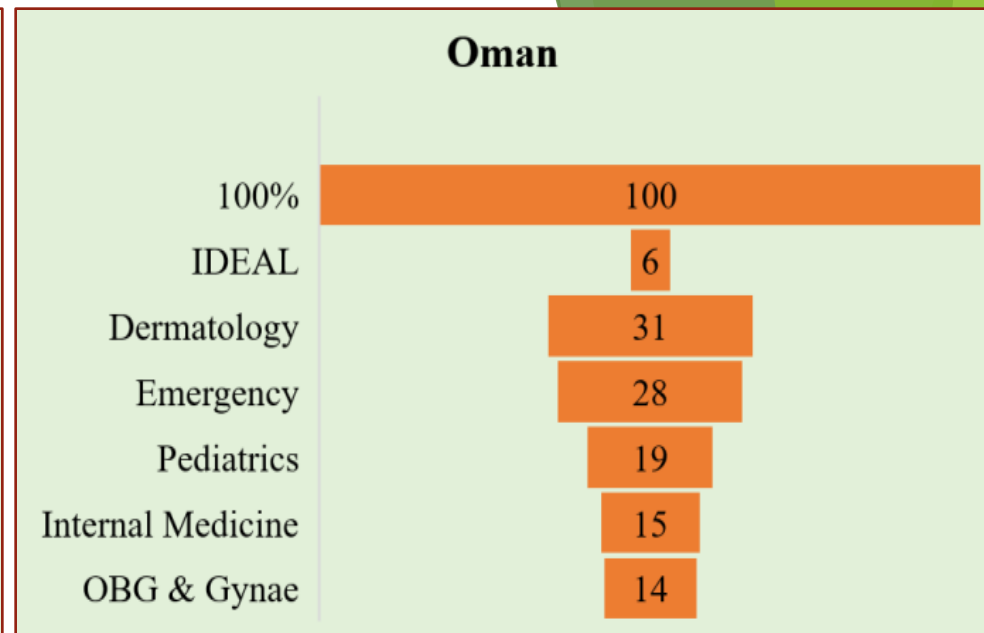
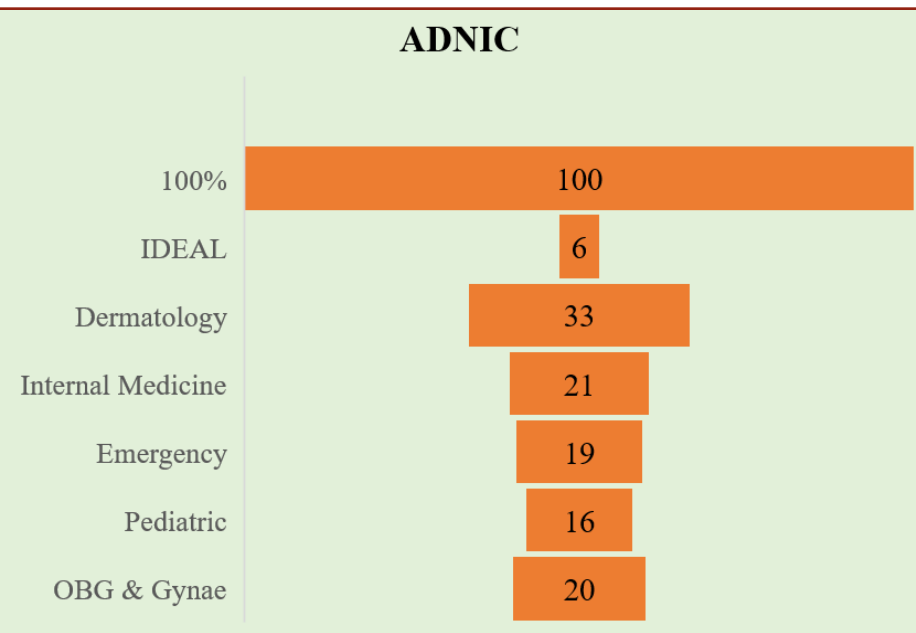


Damaan



Mednet





Inference:

- ▶ Maximum rejections were in Dermatology and Emergency.
- ▶ Critical departments were realised.
- ▶ Reasons for high rejection in these departments, specially dermatology and emergency.
- ▶ Hence, further in the study data of all insurance companies for these 5 departments was analysed and segregated on the basis of reasons of rejection.

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- ▶ After the evaluation of claims and before reimbursing to the hospital all insurance companies issue statements of rejection or denial for all doubtful or unjustified cases. The reconciliation team of the insurance department of the hospital has to justify the claimed amount for reimbursement. According to these statements of rejection issued by the insurance companies, reasons for rejection were analysed for all the cases.
- ▶ After linking the RR with the specific departments it is important to analyse the cause of Rejection also department wise so that corrective measures can be taken. Hence, using the Fish Bone Diagram assessment of the causes of rejection was done. They were further sub-classified: Administrative and Clinical.

Clinical Reasons

CAUSE

Medically
Unjustified

Incomplete
claim form

Prior approval
required

Frequent
treatments

Diagnos
is not
justified

Claim form
not filled
by doctor

Staff unaware
about policy

Supporting
documents
not attached

Doctor's
stamp and
sign

Screening
benefits

Service
medically
not
necessary

NO
benefits
for
treatment

Delayed
Treatment

Consultation
within free
follow up
period

Medical
management

Delayed
approval

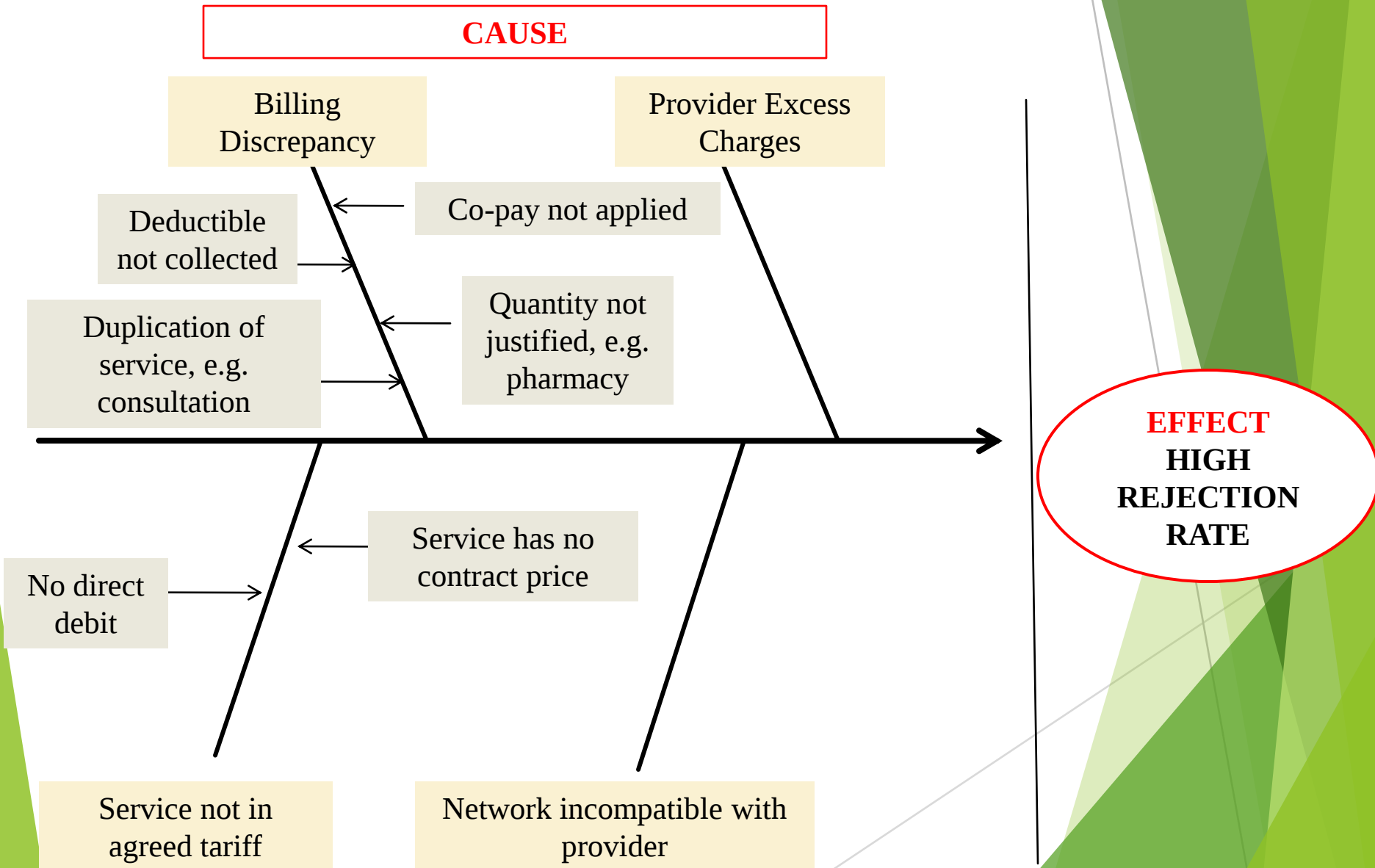
Not covered

Alternative
service

Contract
Terminated

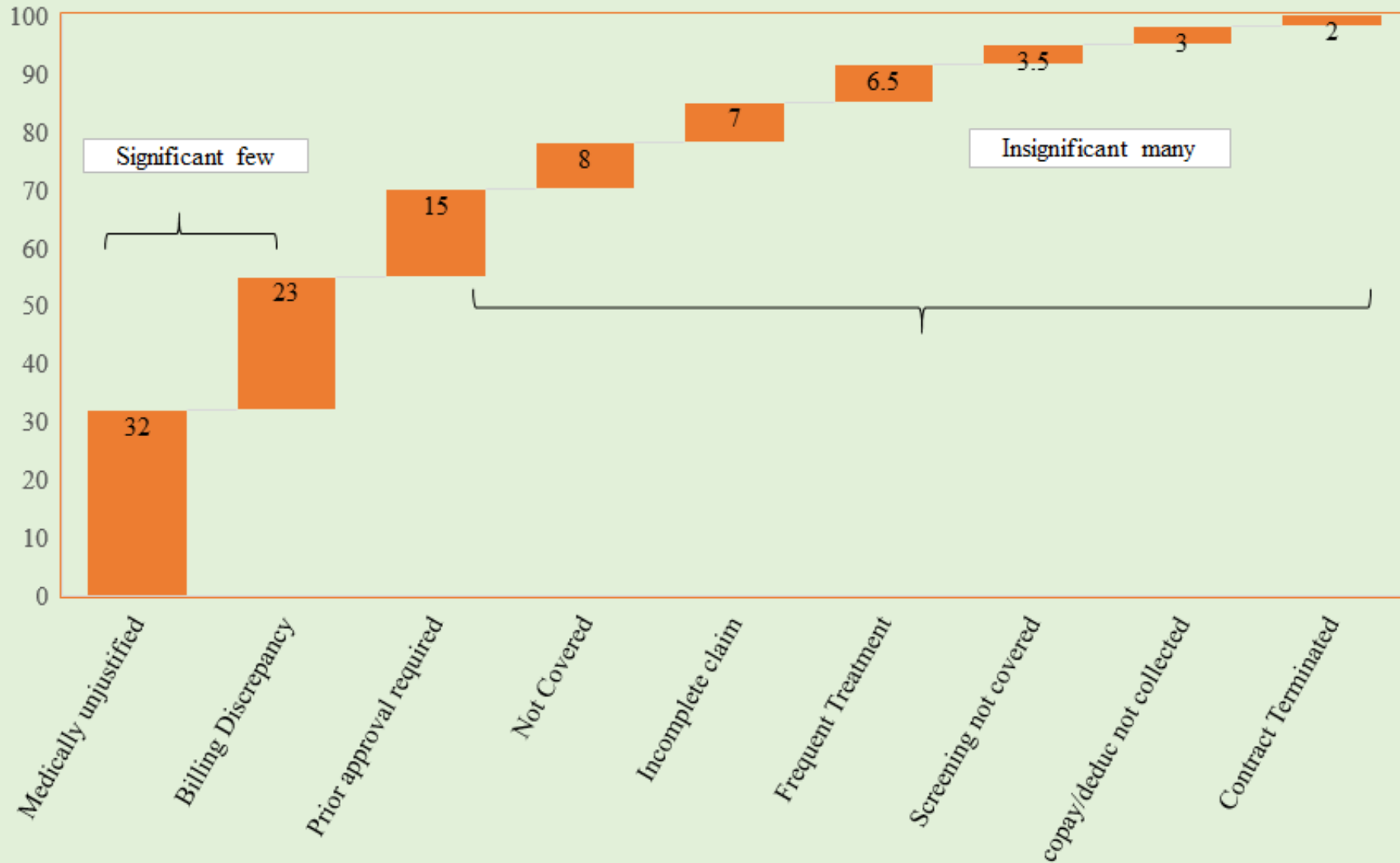
EFFECT
HIGH
REJECTION
RATE

Administrative Reasons



Using the Pareto tool these causes were further analysed to know the critical factors of rejection

Resons for High Rejection Rate in 5 Critical departments



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Suggested Upgradations

Upgraded portal required for easy and time saving medical justification

GMC HOSPITAL & RESEARCH CENTER - Windows Internet Explorer

http://172.16.0.230/InsuranceReception/SevAppReqPatients.aspx

GMC HOSPITAL & RESEARCH CENTER

HOSPITAL INFORMATION & MANAGEMENT SYSTEM

Insurance | Radiology | Reception | Doctors Desk | LOGOUT

Approval Req | New Consults | Edit Service | Change Password

APPROVAL REQUESTS

HospNo : 178300 | FirstName : | LastName : | Mob.No : | PvrNo : | FormNo :

Hosp.ID	Pvr.No	Req.Date	Patient Name	Mobile	Doctor	Company	FormNo
178300	1818905	09/03/14	AHMED MOHAMED SALEH	0501443522	Mohamed Hamdy Ibrahim	AL KHAZNA INSURANCE	1

Select

Medical records | Claim forms | Requested service | Lab reports | Radio reports | Other documents

Claim forms | ADD

Requested service | ADD

Lab reports | ADD

Radio reports | ADD

Other documents | ADD

Card Copy | ADD

Insurance company | ADD

SUBMIT

Internet | Protected Mode: On | 100%

2. Current status of approval and message to patient saves claims expiry

GULF MEDICAL COLLEGE& RESEARCH CENTER - Windows Internet Explorer

http://172.16.0.230/insurance/Reception/ServiceApproval.aspx?Hid=435794&Vid=1849098&date=4/7/2014 12:00:00 AM&time=10:10:14 AM

APPROVAL STATUS W. SERVICE REQUESTED

FormNo	Service	Remark	Approved	Remark/DocNo	File
1	Composite Filling - 2 surface	Appr. Required	Status		Browse...
1	Molar Complete Procedure(Root Canal)	Appr. Required	Status		Browse...
			Approved Rejected		

CURRENT STATUS SUBMIT SAVE

Received
Processed
Query replied
Pending
Handed over

(List of Services Requested for this Patient)

DeptName	Service	NetA
DeptName : DENTAL - Total :747.75		
DENTAL	DENT->Root Canal-> endodontic therapy, molar (excluding final restoration)[D3330]	561.00 Appr Req
DENTAL	DENT->Fillings p-> resin-based composite - two surfaces, posterior[D2392]	186.75 Appr Req

Legend:
✓ - Invoiced
✓ - Received
✗ - Not Received

Symptoms :
pain and swelling
Diagnosis :
peri apical abscess LL 6
Limit

DeptName	DeptLimit	CardL
GENERAL SERVICES		
DENTAL		

3. Online prescriptions and MR for easy medical justification

GMC HOSPITAL & RESEARCH CENTER - Windows Internet Explorer

http://172.16.0.230/insurancenew/Reception/ServApprReqPatients.aspx

Insurance Radiology Reception Doctors Desk LOGOUT

Approval Req New Consulta Edit Service Change Password

HOSPITAL INFORMATION & MANAGEMENT SYSTEM

APPROVAL REQUESTS.....

HospNo : 178300 FirstName : LastName : Mob.No : PvrNo : FormNo :

Hosp.ID	Pvr.No	Req.Date	Patient Name	Mobile	Doctor	Company	FormNo	
178300	1818905	09/03/14	AHMED MOHAMED SALEH	0501443522	Mohamed Hamdy Ibrahim	AL KHAZNA INSURANCE	1	Select

Medical Report

DOCTOR  SEND

Please kindly send us a detail medical report for this patient

4. To avoid billing discrepancies agreed tariffs should be entered in the HIMS to avoid manual entry.

5. After patient registration, display of patient benefits/eligibility in HIMS to avoid mistakes of prior approval.

6. Online common portal for reconciliation and justification statements for all insurance companies.



C

The following measures are suggested to control rejection rate:

- ▶ **A proper revenue control check** should be done timely to calculate and analyze the revenue losses and check for loop holes.
- ▶ The **financial results after final claim rejection** should be discussed for every quarter where the reasons are justified.
- ▶ All **approval team members** should be periodically updated with the changing policies and direct billing tariff list
- ▶ **A proper first verification team** should be there to check for all the claim approvals and documentation claims for all departments. This should be done within 24 hours of approvals.
- ▶ **A regular up-gradation of the HMIS** system should be done periodically.

Recommendations

- ▶ Inclusion and exclusion policies of every insurance company must be incorporated in HMIS.
- ▶ Training of Doctor's on awareness of general inclusion and exclusion policies for various diagnoses so that medically unjustified diagnosis and symptoms could be avoided.
- ▶ Request for approval must be send along with the previous medical history.
- ▶ A medical team for first verification must be set up in the department for verification of claims within 24hrs of the approval.
- ▶ MRD section must be incorporated in HMIS so that the approval team can refer and send the request along with all relevant documents.
- ▶ On the basis of GOP, Claims of all maternity related approvals should be sent at the time of delivery. Rejected amount to be paid by the patient.
- ▶ A mandatory column for diagnosis and other relevant clinical information must be incorporated in HMIS which should be filled by the treating doctor so as to avoid rejection on the basis of diagnosis not justified.
- ▶ Administrative staff must be properly trained so as to avoid any billing discrepancies leading to high rejection rate.

Thank you