



QUALITY BEYOND ACCREDITATION - CLINICAL OUTCOMES

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EX chairman NABH

Clinical Outcomes- What and Why

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- The **results of care** in terms of patients' health over time w.r.t a specific disease or procedure
 - Discomfort
 - Timelines
 - Complications of care
 - Patient satisfaction with health

- Reflect the **full cycle of care** and its impact for that disease

- **Should include the health results most relevant to patients**

- Measurement **must include initial conditions/ risk factors to allow for risk adjustment** (risk stratification) and enable comparisons

The Value Proposition

Clinical Outcomes

Globally agreed upon, evidence based measurable changes in health or quality of life resulting from patient care.

Reporting of outcomes and its continuous monitoring provides an opportunity for assessing and improving quality of patient care.



HOW we started

Monitoring of Clinical Outcomes identified as a pillar of Fortis' core value of PATIENT CENTRICITY .

Brainstorming sessions with stakeholders.



Specialties, procedures and outcomes parameters selected on basis of

Case Mix

Procedure Volumes

Organization Focus Areas



Procedures Identified

Coronary Artery Bypass Graft

Percutaneous Transluminal
Coronary Angioplasty

Total Knee Replacement

Our Journey

Fortis Clinical Outcomes Reporting Portal developed and tested

Outcomes reporting added as Key Result Areas (KRA) in Performance Management System of Hospital managers and Doctors

Culture Change management with focus on promoting a culture of frank reporting and transparency

Pilot at Fortis Escorts Heart Institute (FEHI) from Aug'13 – Dec'13

Roll Out to other Fortis network hospitals
- Jan'14

Fortis Clinical Outcomes Portal

Clinical Outcome Indicators

Welcome **bhaskar.bhowmik1!** FHVK [[Log Out](#)]

Home PCI CABG TKR ONCO KIDNEY Report Settings

From Date To Date Risk Category Pending

| Parameter | Value | Parameter | Value | Parameter | Value |
|--|-------|--|-------|--------------------------------------|-------------------|
| Total PCI | 0 | Total CABG | 0 | Total Knee Replacement | 6 |
| Emergency CABG | 0 | Use of left Internal Thoracic artery graft | 0 | Incidence of Venous Thrombo-Embolism | 0 |
| Puncture site vascular complication requiring intervention | 0 | Bail out IABP | 0 | | |
| Any Bleeding event requiring transfusion/intervention | 0 | Perioperative MI | 0 | | |
| Acute MI | 0 | Re exploration | 0 | | |
| Acute occlusion requiring emergency re-intervention | 0 | Post-operative stroke | 0 | | |
| Renal failure requiring hemodialysis | 0 | Post-operative dialysis | 0 | | |
| Mortality during same hospital admission | 0 | ICU readmission during same hospital admission | 0 | | |
| Re-Admission with Acute MI within 30 Days | 0 | Mortality during same hospital admission | 0 | | |
| Delayed vascular complication at puncture site | 0 | Deep sternal wound infection | 0 | | |
| Mortality within 30 Days | 0 | Operative mortality within 30 Days | 0 | | |
| | | Predicted Mortality | | | |
| | | Observed Mortality | 0.00 | | |

| Parameter | Value |
|--------------------------|-------|
| Total Onco Patient | 0 |
| Treatment completed | 0 |
| Treatment Aim;Curative | 0 |
| Treatment Aim;Palliative | 0 |

Value-Based Health Care Delivery

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“Sound Strategy Starts with having the right goal”

Michael Porter

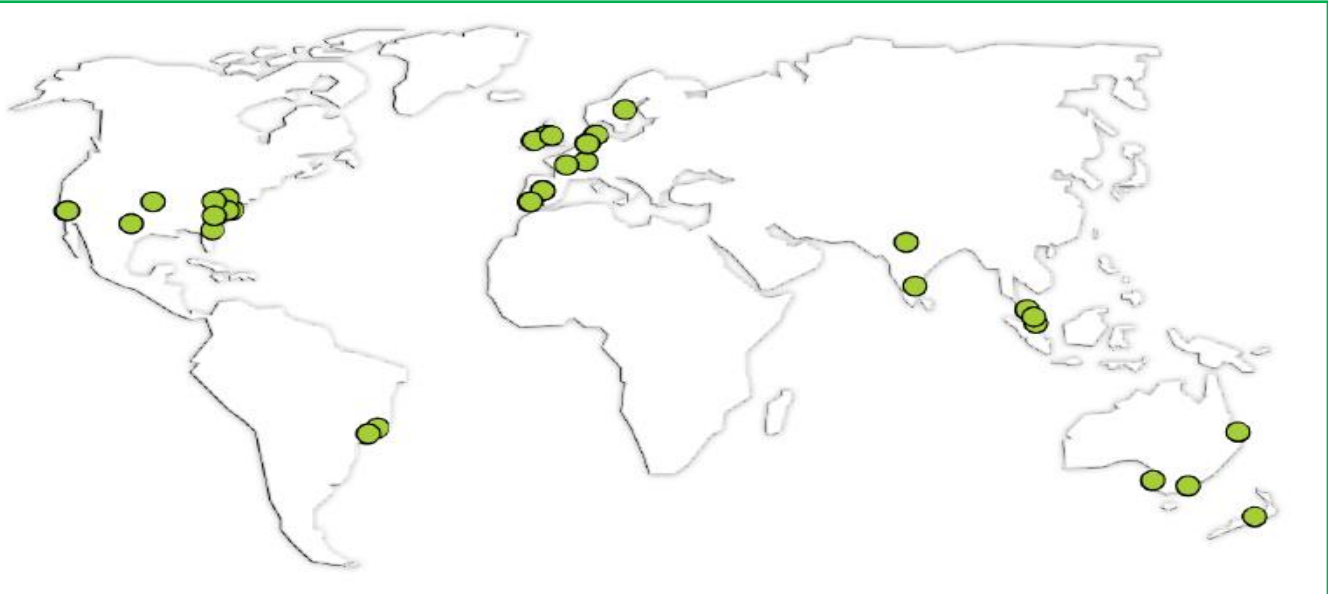
Michael Porter is the **Bishop William Lawrence University Professor at Harvard Business School** - *the highest professional recognition that can be awarded to a Harvard faculty member.*

- One of the world’s most influential thinkers on management and competitiveness.
- Based on his research, **Value based Healthcare Delivery** is a framework for restructuring healthcare systems with the overarching goal of value for patients and not access, cost containment, convenience or customer service.

Fortis Escorts Heart Institute registered as implementation site of ICHOM* CAD Set (Mar'14)

ICHOM - *International Consortium for Health Outcomes Measurement*

A non-profit organization founded in 2012 by the Boston Consulting Group and Professor Michael E. Porter of Harvard Business School, among others. Guiding principle – ‘ultimate measure of success in health care is health outcomes, defined simply as the results that matter most to patients’.



Ramping up.....the *VITAL* link

- Partnership with *VitalHealth*™ (ICHOM certified supplier) in June 2015 for providing Quest Manager platform for Outcomes reporting
- Ensures conformance to all ICHOM requirements and add Patient Reported Outcome Measures
- Flexibility provided to suit Indian requirements
- Fortis Outcomes data *validated by Vital Health*



Fortis Clinical Outcomes Portal: Quest Manager

Registration Portal



New patient

Click above to register new patient and add procedure

Existing patients

Click above to search patients and add procedure

Procedure

Name

Department

UHID

Status

Procedure date range

 -

Active Procedures

All Procedures

| Name | UHID | Sequence no. | Procedure questionnaire | Procedure date | Status | |
|----------------------|--------|--------------|-------------------------|----------------|--------|---|
| Kimtilal, Sondhi | 338902 | 1 | Fortis CABG ICHOM | 23-04-2016 | | Remove Answer |
| Gobinda, Guha Neogi | 169825 | 1 | Fortis PTCA ICHOM | 23-04-2016 | | Remove Answer |
| Kashi Nath, Muhuri | 174898 | 1 | Fortis PTCA ICHOM | 23-04-2016 | | Remove Answer |
| Shiv Kumar, Sinha | 338852 | 1 | Fortis CABG ICHOM | 22-04-2016 | | Remove Answer |
| Obidullah, Obidullah | 338826 | 1 | Fortis CABG ICHOM | 22-04-2016 | | Remove Answer |
| NEELAM, BHATIA | 563733 | 1 | Fortis PTCA PO | 22-04-2016 | | Remove Answer |
| KHANNAYYA, LAL | 563703 | 1 | Fortis PTCA PO | 22-04-2016 | | Remove Answer |

Fortis becomes the 1st Healthcare Provider in Asia to publish Clinical Outcomes data on the website (Jan 2016)

The screenshot shows the Fortis website homepage. At the top, there is a navigation bar with links for About, CSR, Investors, Careers, and Contact. A search bar and a red emergency number button are also present. The Fortis logo is prominently displayed on the left. Below the logo, there are navigation menus for Patient Care & Services, Specialities, Locations, Media Centre, and International Patients. The main banner features a large graphic of a red and green arrow pointing up and down, with a white '1' and 'ST' inside, and a heart rate line. To the right of the graphic, the text reads 'CARDIAC CLINICAL OUTCOMES Comparable with the best in the world*'. Below the banner, there are logos for Fortis Escorts Heart Institute and ICHOM. A green bar at the bottom contains icons for Specialities, Find Doctors, Health Checks, and OPD Schedule, along with a red button for 'Request an Appointment'. The Windows taskbar is visible at the very bottom.

http://www.fortishealthcare.com/ Best Hospitals in India, Live... x

About | CSR | Investors | Careers | Contact Change Location Search EMERGENCY NO. ↓

Fortis

PATIENT CARE & SERVICES ↓ SPECIALITIES ↓ LOCATIONS ↓ MEDIA CENTRE ↓ INTERNATIONAL PATIENTS

1ST

CARDIAC
CLINICAL OUTCOMES
Comparable with the best in the world*

Fortis Escorts HEART INSTITUTE ICHOM

*Benchmarked with top US hospitals For the period - July 2014 – June 2015

Specialities Find Doctors Health Checks OPD Schedule Request an Appointment

ENG 16:24
INTL 10/09/2016

WEBSITE SCREEN SHOTS

nd hope the Government will step in quickly to resolve this anomaly. Meanwhile, at Fortis hospitals across the country, we continue to accept payments through credit card, debit card and electronic banking transfers. As 500 and 1000 Rupee denomination



Clinical Outcomes at Fortis Healthcare

Fortis Healthcare Limited, is one of the largest integrated, healthcare services provider in the country. Fortis aspires to drive clinical excellence through continuous improvement and enhancement of its clinical care and services.

Clinical Outcomes are the globally agreed upon, evidence based measurable changes in health or quality of life resulting from patient care. Reporting of outcomes and its continuous monitoring provides an opportunity for both assessing and improving quality of patient care.

To strengthen its core value of Patient Centricity, all Fortis hospitals continuously monitor and evaluate their clinical outcomes for multiple procedures and disciplines, namely:

1. Coronary Artery Bypass Graft (CABG)
2. Percutaneous Transluminal Coronary Angioplasty (PTCA)
3. Kidney Transplant
4. Total Knee Replacement
5. Radiation Oncology
6. Endoscopic Retrograde Cholangio Pancreatography (ERCP)
7. Maternal and Child Health

Clinical outcomes of more procedures are constantly being monitored and will be added in phases.



| PERCUTANEOUS TRANSLUMINAL CORONARY ANGIOPLASTY (PTCA) | Jul'14 - Dec'14 | Jan'15 - Jun'15 | Jul'15 - Dec'15 | Jan'16 - Jun'16 | Benchmarks |
|---|-----------------|-----------------|-----------------|-----------------|------------|
| Emergency CABG for failed procedure | 0.07 % | 0.06 % | 0 % | 0 % | 1.2 %* |
| Vascular complication at puncture site requiring intervention (beyond simple compression) | 0 % | 0.06 % | 0.07 % | 0 % | 1.1 %* |
| Acute vessel occlusion requiring emergency re-intervention | 0 % | 0 % | 0 % | 0.06 % | - |
| Post procedure neurological stroke | 0 % | 0.13 % | 0.13 % | 0.06 % | 0.284 %** |
| Post procedure Renal failure requiring hemodialysis | 0 % | 0 % | 0.07 % | 0.13 % | - |
| Any Bleeding event requiring transfusion/intervention (within 72 hrs.) | 0.07 % | 0.06 % | 0.07 % | 0.51 % | 4.0 %* |
| Delayed vascular complication at puncture site | 0 % | 0 % | 0.07 % | 0 % | - |
| Readmission with acute Myocardial Infarction within 30 days | 0 % | 0 % | 0 % | 0.13 % | - |
| Mortality during same hospital admission | 0.26 % | 0.97 % | 0.26 % | 1.34 % | 1.7 %* |

References:

- * US National Registry Data 2013
- ** Cleveland Clinic Outcomes Report 2014

| CORONARY ARTERY BYPASS GRAFT (CABG) | Jul'14 - Dec'14 | Jan'15 -Jun'15 | Jul'15 - Dec'15 | Jan'16 - Jun'16 | Benchmarks |
|--|-----------------|----------------|-----------------|-----------------|------------|
| Use of left Internal Thoracic Artery graft | 78.50 % | 77.36 % | 79.01 % | 80.25 % | 74.20%* |
| Need for a Bail out Intra Aortic Balloon Pump (IABP) | 1.31 % | 0.99 % | 0.64 % | 0.31 % | - |
| Perioperative Myocardial Infarction | 0.16 % | 0.50 % | 0 % | 0 % | 0.96 %** |
| Post procedure neurological stroke | 0 % | 0 % | 0.48 % | 3.40 % | 0.80 %* |
| Need of Re-exploration surgery | 1.97 % | 3.31 % | 3.50 % | 0.46 % | 3.50 %* |
| Deep sternal wound infection | 0.33 % | 0.50 % | 0 % | 0.15 % | 0.20 %* |
| Predicted mortality (<i>using Euroscore II</i>) | 2.24 % | 2.21 % | 2.25 % | 2.20 % | - |
| Observed mortality | 2.30 % | 1.82 % | 2.54 % | 2.01 % | - |

References:

* Cleveland Clinic Outcomes Report 2014

** Texas Heart Institute 2014



KTP Data – Fortis Vasant Kunj

FHVK Clinical Outcomes(Kidney Transplant) with International Benchmarks

Patient and Graft survival is the most accepted clinical outcome parameter for measuring success of a kidney transplant surgery. At Fortis, transplant recipients are followed up by means of consultations and checkups at regular basis to assess their general well-being and functioning of the transplanted kidney. The 1 year survival rate of our patients is mentioned below along with the international benchmarks.

Kidney transplant - One year patient survival rate

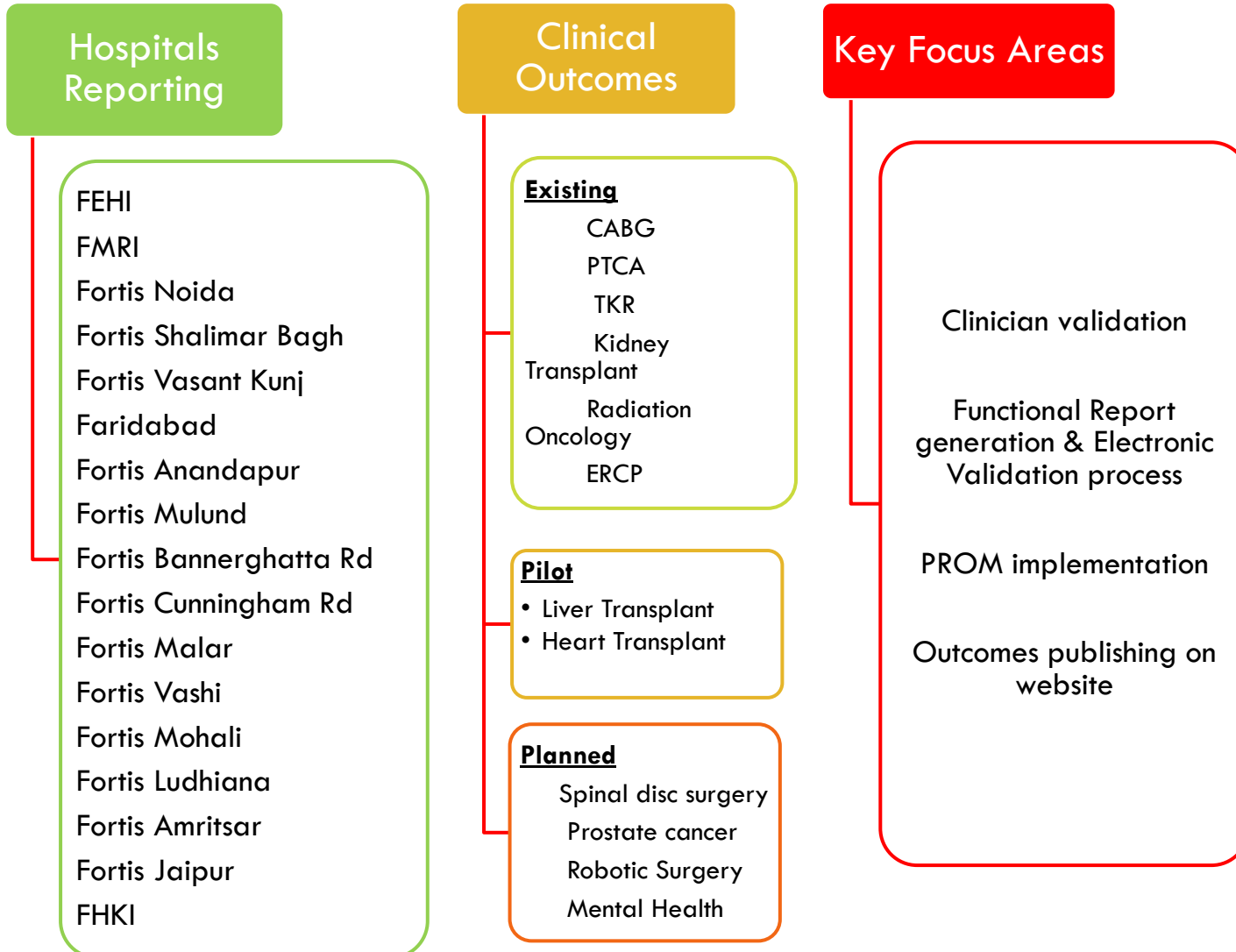


| One year survival rate of Kidney Transplant patients(n=122) | Apr'14 - Mar'15 | Benchmarks |
|---|-----------------|-------------------------------|
| One year survival | 94.87 % | 90-95%* 90-95%** 97%*** |

References:

- * Kidney Research, UK
- ** Kidney Foundation of Canada
- ** National Kidney Foundation, USA

The Spread



Recently Added Feature I : Electronic Validation



Dr. Bhaskar Bhowmik
Doctor



Caregiver - File data

Search patients

Search [Advanced](#)

Search result

Open patient file Add to group... Add to caseload Remove << 1/1 >>

| Patient name | UHID | Date of birth | Current period | Planned | Incomplete | WFA | Reopen | Completed | Missed | Alert | Next measurement |
|--------------------------|--------|---------------|----------------------------|---------|------------|-------|--------|-----------|--------|-------|------------------|
| Indu Bhushan, Srivastava | 328572 | | 11-01-2017 till 11-04-2017 | * | (2) | ⌚ (1) | | | ✗ (1) | | |
| INDU, SHUKLA | 600293 | | | | | | | | ✗ (2) | | |

Caregiver - Questionnaire management

Answer questionnaires Approve questionnaires

Department Start date till

Professional as respondent End date till

Patient Waiting since till

Questionnaires

< Back View Answers Refresh << 1/1 >> ?

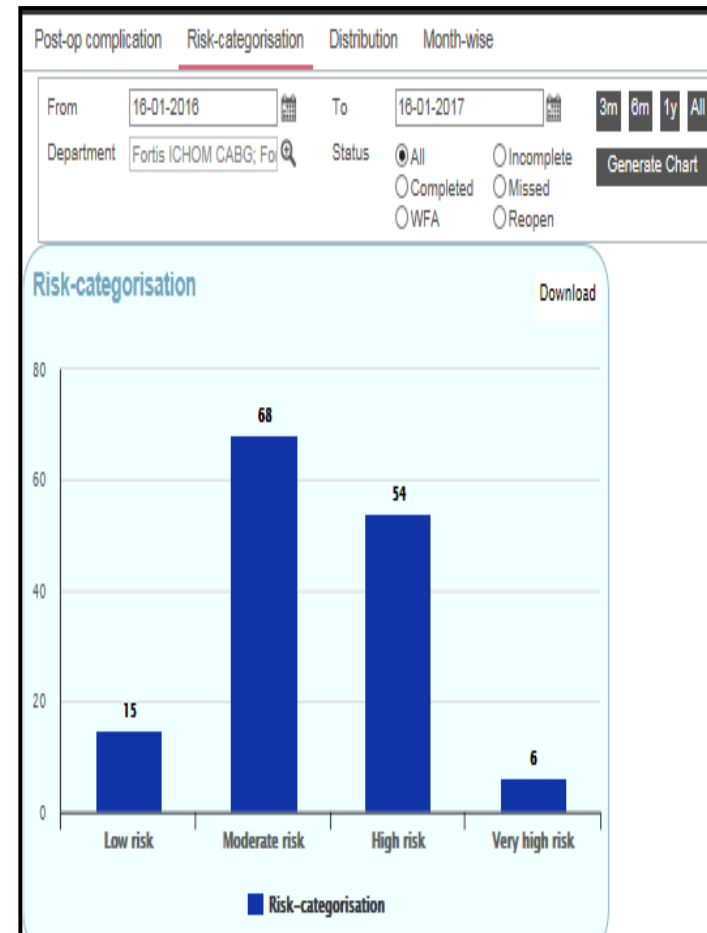
| Patient name | Sequence no | Questionnaire path | Moment no | Questionnaire | Start date | End date | Waiting since | Respondent type | Respondent name |
|--------------------------|-------------|--------------------|-----------|----------------------------|------------|------------|---------------|-----------------|-----------------|
| Indu Bhushan, Srivastava | 1 | ICHOM CABG | 2 | Fortis CABG ICHC11-01-2017 | 11-01-2017 | 11-04-2017 | 16-01-2017 | Professiona | |

Approve Disapprove Change Answers Cancel

| Number | Code | Question | Answer | Alert |
|--------|------|--------------|--------|-------|
| 1 | 1 | IPID | 85858 | |
| 2 | 2 | Contact | | |
| 3 | 3 | Age | | |
| 4 | 4 | Gender | | |
| 5 | 5 | Previous AMI | | |

Approval rights are procedure specific not consultant specific!

Feature II: Functional Report Generation



Basic report generation and graphical display at end user level

Summary

- Implementation of ICHOM standards has helped Fortis Clinical Excellence Program in improving patient engagement and strengthening our commitment to our core value of Patient Centricity.
- Validation and certification of our Clinical Outcomes data by Vital Health as an ICHOM Certified Supplier adds confidence to our claim of being leaders in this space and we are the first Healthcare chain in India to publish our Clinical Outcomes on the website.