

## Transforming Outcomes through Implementation of a Nurse Practitioner Hospitalist Service

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**LONG BEACH MEMORIAL**  
**Miller Children's Hospital**  
**Long Beach**

MEMORIALCARE HEALTH SYSTEM

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## About Long Beach, CA

- Located in South Los Angeles County
- Seventh largest city in California
- Primary service area is app. 650,000 people
- Population app. 500,000 with >50% Hispanic/Latino or other minorities
- Largest Cambodian population outside Cambodia
- Shipping, oil, aircraft, education and healthcare are the largest industries

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## About Memorial Care



**LOS ANGELES COUNTY**

**ORANGE COUNTY**

- MemorialCare Physician Groups  
2,000+ Primary Care Physicians  
2,000+ Specialists
- 12 Urgent Care Centers
- 9 MemorialCare Imaging Centers
- 8 MemorialCare Surgical Centers
- MemorialCare Medical Center
- Miller Children's & Women's Hospital Long Beach
- USC Medical Center
- MemorialCare Shared Services

MEMORIALCARE HEALTH SYSTEM  
FOUNDED BY DR. JAMES H. HARRIS

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### Long Beach Memorial

(462 Beds)



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- Annual ED Visits: >100,000 adult & peds
- Heart & Vascular Institute
  - AHA Gold in HF
- STEMI Receiving Center
- Certified Stroke Center
  - AHA Gold Plus
  - Joint Commission
- Destination Joint Center
- Diabetes Center
  - Joint Commission
- Level II Trauma Center
  - ACS Reviewed
- Inpatient Rehab Facility
  - CARF accredited

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### Miller Children's & Women's

(371 beds)

- High Risk Women's Hospital
  - 6000 births/yr.
- Level III Regional NICU
  - 1000 NICU babies/yr.
- PICU-building to 32 beds
- Ped Hematology & Oncology
- Intensive Ped/Neonate Transport
- Pediatric Spec. Outpatient Clinics
  - 84,000 visits/year

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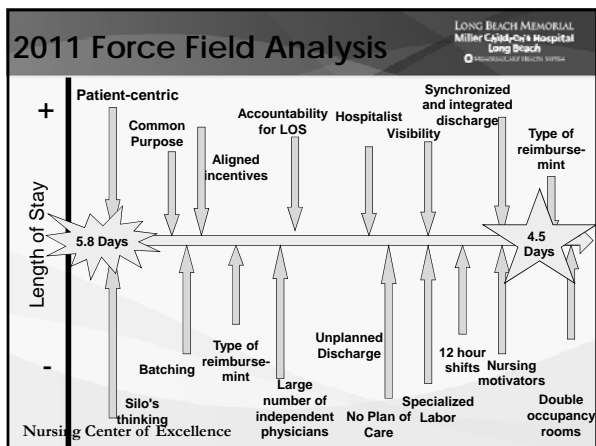
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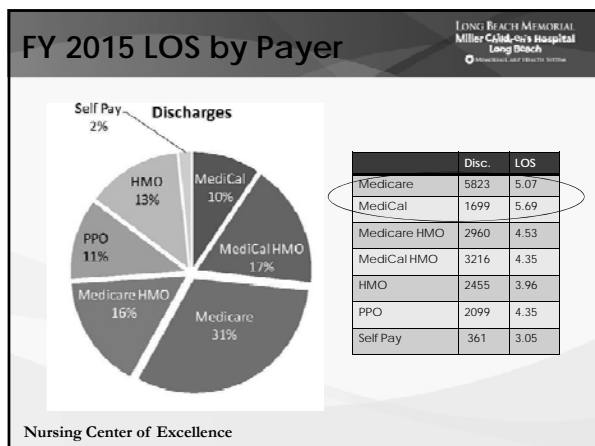
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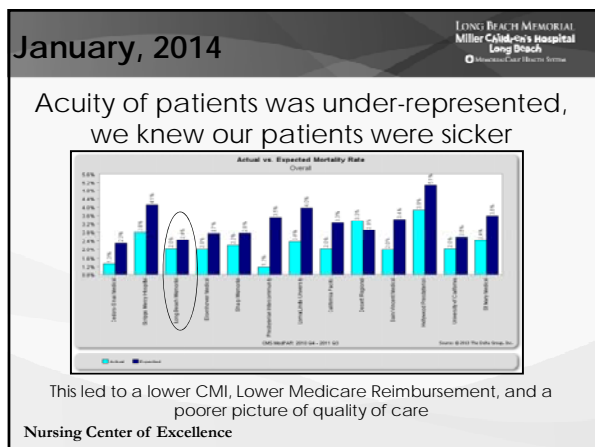
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### Three primary patient types

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- Unassigned- patients arriving in the medical center through the ED without a PCP- contracted hospitalist service.
- Assigned- patients arriving in the medical center through the ED with a PCP who does not care for patients in the hospital- they select internist.
- Specialist directed admission who wants a hospitalist – they select internist.

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2014 –

## We had a persistent problem

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Quarter 2, FY 2014				
Physician Type	Discharges	Actual Medicare LOS	Medicare GMLOS	CMI
Unassigned Hospitalist	432	4.33	4.40	1.68
Frequent Assigned Internist	216	5.63	4.28	1.74

## Assigned internists

- practiced at multiple hospitals so saw patients once/day
- did not return calls to nursing staff delaying progression of care and appropriate interventions
- rounded at variable times – many in the middle of night-delaying patient progression
- Unaligned incentives with the hospital

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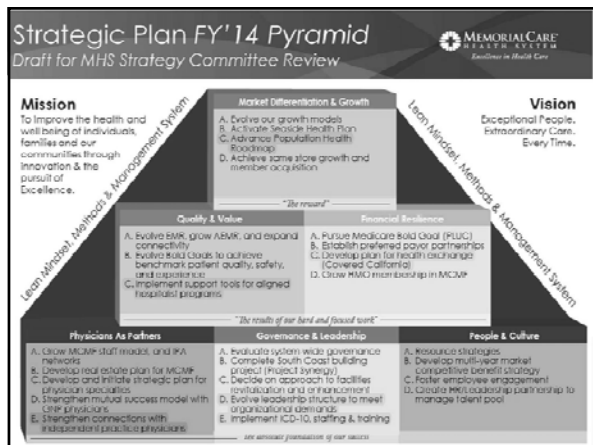
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## Nurse Practitioner Solution

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- January, 2014 – needed innovative interventions
- Based on a partnership model – you help us and we will help you — and ourselves.
- February, 2014 – presented Business Case to Executive Committee for NP hospitalist model to support assigned internists.
- Case accepted and implementation of NP hospitalist program started immediately.

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## Nurse Practitioner Solution

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One of four strategies implemented to decrease LOS and accurately report CMI

1. NP hospitalist service for assigned patients
2. Contracted hospitalist service for unassigned patients
3. Clinical Documentation Improvement Program
4. Escalation Huddles

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## Cost Benefit Analysis

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### Cost of NP Program

Item	Cost
Clin Ops Manager	\$ 162,000
NPs	\$1,184,433
Supplies & Purchased Services	\$ 24,000
Total	\$1,370,433

### Benefit

- Each .1 reduction in Medicare LOS = 1.5 million savings annually
- Each .1 increase in case mix index = 3.0 million increase in Medicare reimbursement annually

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## Project Description

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The NP Hospitalist Service will assist a pilot group of LBM private practice internists with assigned patients.

The service may be expanded to other LBM physicians and Miller Children's physicians in the future.

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## Target Condition

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Minimally Invasive Surgical Services

### Implement 24/7 NP Hospitalist Service to:

- Document accurately to reflect case mix index, and thus severity of illness and risk of mortality
- Reduce delays in care progression and unnecessary LOS
- Create partnership with internists not closely aligned with the hospital goals

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## Implementation of Adult NP Hospitalist Service

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Minimally Invasive Surgical Services

Steps to Implementation	Date
Met with employed Nurse Practitioners in the medical center to discuss opportunity	January 2014 (22 attended)
Met with identified assigned internists to make them aware of the potential new service and the benefits to them (CNO and CMO)	February through March 2014
Posted positions and interviewed NP Clinical Operation Manager Adult NP Hospitalists- 7.0 FTEs (7 full-time and 1 part-time)	February 2014
Start of NP orientation program (2 month program)	March 24 <sup>th</sup> 2014
Adult NP service fully operational	May 26 <sup>th</sup> 2014

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## Planning for NP Role and Implementation

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## Planning for NP Role

- **Need a standard process for planning and implementing the NP role**
  - Avoid barriers
  - Provide optimal development of role
- **Utilized PEPPA Framework**
  - P = Participatory
  - E = Evidence-based
  - P = Patient-focused
  - P = Process for guiding the development, implementation, and evaluation of
  - A = Advance practice nursing

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## PEPPA Framework

- Bryant-Lukosius & DiCenso developed framework to help guide implementation of APN
- Developed by combining two different models for the APN
  - Spitzer in 1978
  - Dunn and Nicklin in 1995
- Nine step process for implementation

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## PEPPA Framework

Step 1	Define the population and describe the current model of care
Step 2	Identify stakeholders and recruit participants
Step 3	Determine the need for a new model of care
Step 4	Identify priority problems and goals to improve the model of care
Step 5	Define the new model of care and APN role
Step 6	Plan implementation strategies
Step 7	Initiate APN role implementation plan
Step 8	Evaluate the APN role and new model of care
Step 9	Long-term monitoring of the APN role and model of care

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## PEPPA Framework

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### • Step 1-5 (Initiated by Administration)

- Analyze current state, processes and models
- Is the NP role going to meet the needs of the organization, strategic initiatives, hospital, and patients.
- Identify priority problems and goals
- Define the new model

Bryant-Lukosius & DiCenso, 2004; Sangster-Gormley et al., 2011

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## PEPPA Framework

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## PEPPA Framework

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### Steps 6-7

- Initiating of a plan for the implementation of the role
- Look at barriers and challenges
  - If barriers and challenges not addressed then synergy and desired outcomes will not occur

Bryant-Lukosius & DiCenso, 2004; McNamara et al., 2009; Sangster-Gormley et al., 2011

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## Barriers and Challenges

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Integrating Care Through Systems

- Understanding the goals, role, and strategic initiatives
- Organizational culture
- NP Role
  - Job description
  - Union-CBA
  - Reporting structure
  - Orientation
  - Nursing policies-Standardized Procedures
  - Privileging & medical staff policies
- Acceptance by multidisciplinary teams and MDs
- Burnout and retention
- Outcome and financial evaluation

Bryant-Lukosius & DiCenso, 2004; McNamara et al., 2009; Sangster-Gormley et al., 2011  
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## Implementation

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## Nurse Practitioners

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- **Extensive Interview Process**
  - Nursing administration reviewed applicants and interviewed
  - Looked at clinical knowledge, communication, teamwork, positive attitude, and commitment
- **Hired 8 NPs (7 full-time, 1 part-time)**
  - 7 internally
    - 5 new graduates, 2 never worked as hospitalist NP
    - Allowed for 2<sup>nd</sup> job code so could return to unit
  - 1 externally with experience as Hospitalist NP

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## Orientation Program

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- **Two week intensive classroom orientation**
  - Explanation of strategic goals of program
  - Initial needs assessment
  - Epic training
  - Clinical documentation (CDI) classes
  - Team building exercises
  - Clinical- DM, Neuro, Cardiac, Pharmacology
- **Six week shadowing/precepting with physicians and other NPs in hospital**
- **Clinical competency assessment and validation tool utilized during orientation**

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## Medical Staff and Privileging

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- **Collaboration with Medical staff and Medical Directors**
  - Previously took 3-9 months for privileges
  - NPs were granted temporary and then full privileges within 2-3 months
- **Proctoring process**
  - 90 day process for experienced NPs
    - Utilized existing medical staff processes and documents
  - 1 year process for new grads (6 NPs)
    - Worked with nursing education to specify competencies
    - Standardized physician sign off on proctoring documentation

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## Service Implementation May 2014

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- **Adult NP service a 24 hour service with operations 7 days a week including holidays**
- **7 Physicians initially divided up into 2 teams (Red and Blue)**
  - 2-3 NPs from 6am to 6pm
  - 1 NP 6pm to 6am
  - Oversee Admission, discharge, and daily progression of patients with physicians
  - Update problem lists with appropriate clinical documentation
- Example: **Acute postop blood loss anemia** instead of **Anemia**
- **Standard work created**
  - Documentation, expectations, and goals

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# PEPPA Framework

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Miller Children's Hospital

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INTEGRATIVE CARE HEALTH SYSTEM

Step 1	Define the population and describe the current model of care
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# PEPPA Framework

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INTEGRATIVE CARE HEALTH SYSTEM

**Steps 8-9**

- Outcomes & evaluation often forgotten when first implement the role
- Changing environment need both short and long term monitoring of role
  - Allows for the role to evolve to meet the changing governmental regulations, hospital, and needs of patients

Bryant-Lukosius & DiCenso, 2004; McNamara et al., 2009; Sangster-Gormley et al., 2011

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# Initial Outcomes

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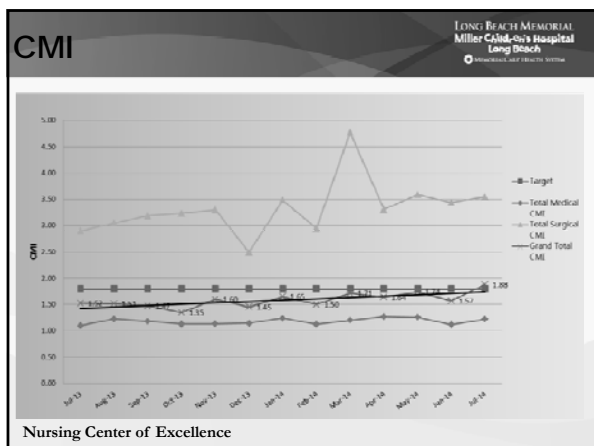
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### Barriers to CMI

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Medicaid Case Mix System

- **NP barriers**
  - Knowledge and education
  - Periodic peer review
- **Physician barriers**
  - Education on proper clinical documentation
  - Standard use of NP documentation
- **Coding**
  - Clarification on what could code from notes
  - Education of coding staff

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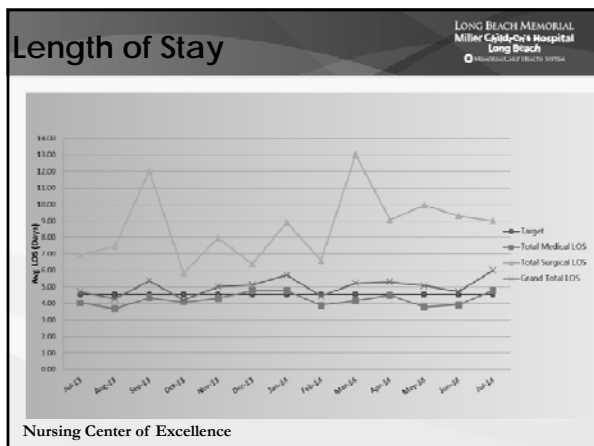
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## Barriers to LOS

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Minimally Invasive Surgical Services

- **New grad NPs**
  - Extensive education on discharge planning at admission
  - Standard work and EMR templates
  - Schedule standardization
- **Physician barriers**
  - Sharing of data and outcomes
  - Sharing of best practices
  - Administrative support
- **Family barriers**
  - Improved communication via NPs
  - Standard work and EMR templates around communication with families
- **Long term care placement**
  - Working relationships with places in community

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## Outcomes\*

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Minimally Invasive Surgical Services

Metric	March 2013-2014	March 2014-2015
CMI	1.54	1.63
LOS	5.3 (4.9)	5.0 (5.5)
Complications of Care	3.73% (2.31)	2.74%(2.84)
Mortality Rate	4.44 % (3.58)	3.84% (4.62)
Readmissions	16.40%(12.90)	18.28% (13.97)

\*Crimson Data

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## Financial Outcomes

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Minimally Invasive Surgical Services

### Medicare CMI

Improvement of 0.09= \$810/patient (807)  
Totalled \$653,670 return for hospital

+

### Medicare LOS

Improvement of 0.3= \$390/patient (807)  
Totalled \$314,730 return for hospital

**Total \$968,400 return for hospital**

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## Expansion of Services

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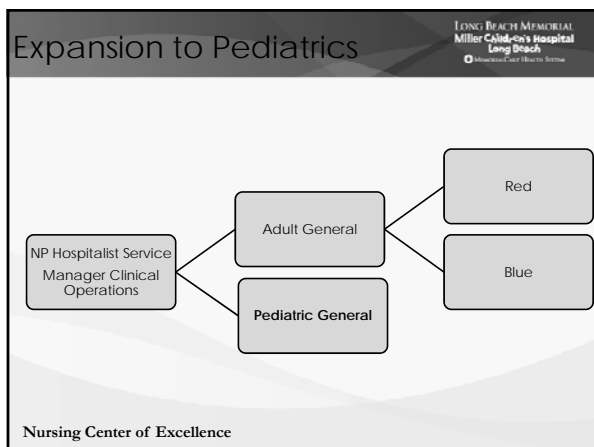
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## Pediatric NP Team

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- Assist teaching service in general pediatrics
  - Issues with continuum of care
  - Issues with communication
  - Recent transition to APRG (CMI)
  - LOS
- Started with a trial in November 2014 due to concerns over NP role from Teaching service
- Hired 3 NPs (2.7 FTEs) internally for trial
  - Worked Monday through Sunday (including holidays) 6am to 6pm
  - Followed similar model of adults but orientation modified to meet needs of trial
- Trial stopped only after 2 months and role fully implemented and additional 0.9 FTE hired

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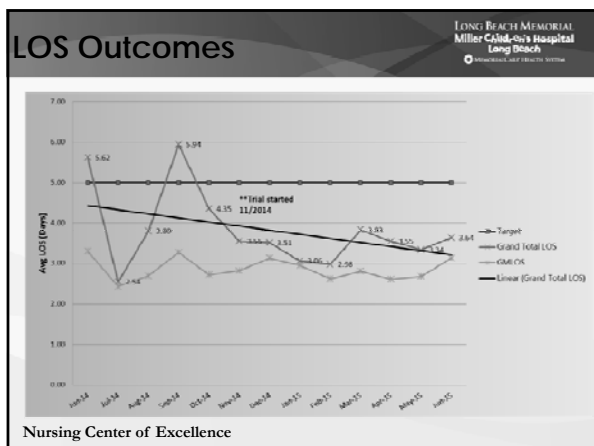
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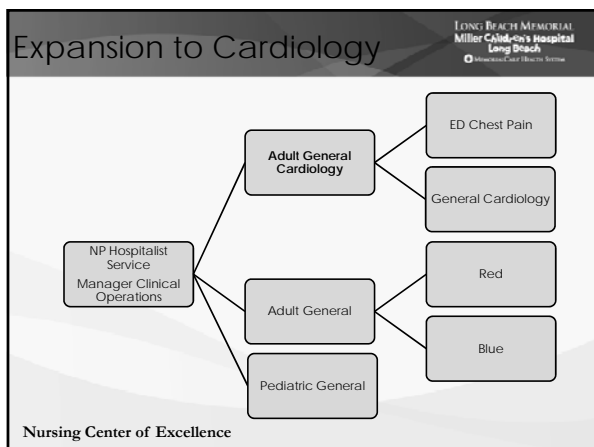
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### Adult Cardiology Team

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International Medical Center

- **Additional 1.8 FTE (2 NPs)**
- **Coverage of internal medicine cardiologists**
  - LOS and CMI
- **Coverage of CP patients in ED- June 2015**
  - Initial implementation ED CP delayed due to changes physicians coverage
  - Help with inappropriate admissions
  - Help with fast track of Low Risk patients
    - Stress Testing
    - CP clinic
- **Initial data shows a decrease LOS and admissions**

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## Lessons Learned

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- Utilize standard processes
- Be aware of organizational culture
- Identify barriers early in implementation
- Be realistic when identifying goals and timeline
  - New grad education and clinical skills
  - Lead time for program implementation
- Monitor outcomes and make adjustments as needed

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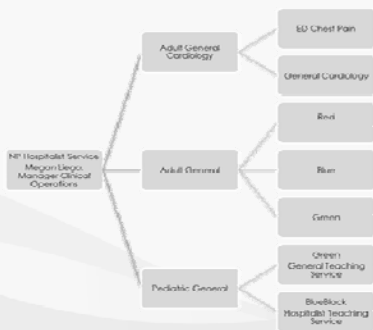
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## Further Expansion

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## Further Expansion and Goals

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- Further development of a Utilization Management NP Team (Red)
- Addition of Adult Green Team and Collaboration with Memorial Medical Group
- Further expansion with Pediatric Hospitalists
- Creation of best practices for NP hospitalist role and expansion within memorial healthcare system



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**Vision of NP  
Hospitalist Service**

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“Improving the Quality of Patient Care  
through Exceptional Nurse Practitioners  
Providing Compassionate and  
Extraordinary Care Every Big and Little  
Moment in Time”

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**Questions/Contact  
Information**

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