The Heart of Care Redesign – Care Protocols

Maureen Geary
Kim Beekmann RN, BSN
Connecticut Joint Replacement Institute

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Connecticut Joint Replacement Institute

- Connecticut Joint Replacement Institute (CJRI) is one of the largest joint centers in the region with over 13,500 procedures since 2007
- CJRI is one of America's 100 Best Hospitals for Joint Replacement*
- CJRI is #1 in Connecticut for Joint Replacement outcomes*
- CJRI is #9 in the USA for outcomes **

* HealthGrades

** CareChex

Steps to Development of a Bundled Payment Program

1. Build the dedicated team
2. Define the episode
3. Define performance measures (Cost and Quality)
4. Develop the Care Models
5. Cost reduction opportunities
6. Price the Bundle
7. Gain-sharing or other methods of compensation
8. Develop Continuous Process Improvements
9. Align with post-acute providers

Build the Dedicated Team

Multidisciplinary team consisting of:

- Surgeon Co-Directors
- Anesthesiologists
- Hospital Executive Leadership:
  - Operations
  - Finance
  - Nursing
  - Legal
  - Executive Director
  - Program Director

Define the Episode

Detailed definitions:

1. Define which parties involved
2. Outline duties of each party
3. Define the “bundle”
4. Define the time frame
5. Warranty (define covered service and time frame)
6. Cost over runs
7. Best Practices and Evidence Based Medicine

Step Ahead Program – Governing Committee

Saint Francis Hospital and Medical Center

- Kate Roche, MSRN
  Chief Operating Officer
- Nicole Schulz
  VP of Revenue Cycle
- Kim Beekmann, RN, BSN
  Executive Director

Connecticut Joint Replacement Surgeons *

- Dr. Steven Schutzer
- Dr. John Grady-Benson

Woodland Anesthesia Associates

- Dr. Jonothan Abrams
- Dr. Sanjay Sinha

Program Director

- Maureen Geary

Program Administrator

- Sylvia Digby

*** 10 different surgeons from 5 different practices**

Step Ahead Program – Roles and Responsibilities

Saint Francis Hospital and Medical Center

- Hospital Facilities
- Hospital Personnel
- Prosthetic Implant
- Medical Supplies
- Clinical Care
- Pharmacy
- Rehab Therapy
- Private Room

Connecticut Joint Replacement Surgeons *

- Pre-Operative Evaluation
- Total Hip and Knee Arthroplasty
- Post-operative Inpatient orthopedic care
- Post-operative follow-up visit, during 90 day global period

Woodland Anesthesia Associates

- Determine pre-surgical evaluation medical suitability
- Pre-operative, intra-operative and post-operative services
- Pain Management

Hospital submits one claim to Provider
Provider makes one payment to the Hospital
Hospital distributes funds

Step Ahead Program

Single package price for a comprehensive and specific set of healthcare services delivered to a patient by multiple providers over a defined period of time (episode)

Surgeon's Office → Surgery → Hospital Stay

Exclusions - History & Physical, Re-admissions, Post Acute Care

Step Ahead Patient Criteria

The “Step Ahead” program at CJRI is offered to patients less than 70 years of age with either none or minimal systemic disease and would also exclude patients with specific conditions

Step Ahead Exclusions

- Creatinine >2
- BMI >35
- Major depression, psychosis, bipolar disorder.
- Use of more than one antidepressant or anxiolytic medication
- Hemoglobin A1C >6.5
- Anemia (Men with Hgb <13, Women with Hgb <12)
- Chronic anticoagulant therapy
- Chronic narcotic or alcohol dependency
- History of pulmonary embolism, or deep vein thrombosis
- Obstructive sleep apnea
- History of stroke or transient ischemic attack

Define the Episode
Excess Cost and Expense

- Cash reserves:
  a. Claim reserve
  b. Operating reserve
- Cost over runs: shared and not shared
- Claims: low claim, high claim, insured claim
- Stop loss coverage

“Step Ahead” – Stop Loss Policy

- $ 250,000 annual contract limit
- $10K deductible per claim
- “Complication cost plus 10%”
- Shared excess costs greater than $10K become an “insured claim”

Excess Costs

Shared

Low claim — Cost over runs under $5K come off the top

High claim — Cost over runs in excess of $5K are deducted from the claim reserve

Insured claim — Cost over runs in excess of $10K

Not Shared

Unwarranted or deliberate deviation from the approved protocols

Define the Episode - Patient Warranty

Covers re-admissions for surgical site complications:

- Wound complications (hematomas, infections, dehiscence)
- Peri-prosthetic fractures
- Instability

The terms of the patient warranty are negotiable

Define Performance Measures: Costs

- Hospital cost/case
- Surgeon’s cost for services
- Anesthesia cost for services
- Cost for re-admissions

Define Performance Measures: Outcomes and Quality

- Re-admissions (30, 60, 90 day)
- Complications (30, 60, 90 day)
- HCAHPS Scores *
- SCIP Measures **
- Press Ganey scores
- Length of stay
- Post-acute discharge (home vs. extended care facility

* Hospital Consumer Assessment of Healthcare Providers and Systems
** Surgical Care Improvement Project

Define Performance Measures: Outcomes and Quality

Functional Outcomes Metrics

- HCAHPS
- Complications/Readmission
- Cost per case
- Knee outcomes (KOOS) *
- Hips outcomes (HOOS) **
- SF – 36 (General quality of life scale)

* Hip dysfunction and osteoarthritis outcomes score

** Knee dysfunction and osteoarthritis outcomes score

Develop the Care Model

A unique opportunity to map out, end to end, the patient experience and then perform a complete care re-design of your program

Develop Care Plans

22 Clinical Protocols and Best Practices Documentation Required

Pre Operative	**5**
Intra–Operative	**5**
Post Operative Inpatient	**4**
Discharge	**4**
Post Discharge	**4**

Physician Agreement and Acknowledgement

Each Orthopedic Surgeon and Anesthesiologist that performs bundled payment surgery will participate in an in-service that outlines in detail their specific responsibilities, the protocols/best practices, and their own personal financial risks for non-compliance.

Physician Agreement and Acknowledgement

Patient responsibilities:

1. Follow post-op instructions
2. Report complications to surgeon
3. Seek emergency care at our hospital

Cost Reduction Opportunities and Pricing the Bundle

While re-designing care plans, drill down on the direct cost associated with each step to eliminate waste, duplication and unnecessary services…cost reduction.

Determine the “base cost” of the hospital component of the Bundle…first step in pricing the bundle.

Total Bundled Payment for Primary THA and TKA

Hospital base cost + margin *

+

Surgeon's base cost + margin

+

Anesthesia base cost + margin

+

Small % added to package price for cash reserves

= total package price for bundle payment services

% package = % risk for shared over runs

* The Margin is the same for all three parties

Cost Reduction Opportunities and Pricing the Bundle

Hospital Re-admissions

Emergency Department protocol:

Within 90 day post-op period, establishes a mechanism to determine appropriateness for additional treatment or re-admission for all BP patients.

The Orthopedic PaC is the designated point person.

Develop a Continuous Process Improvement Plan

(a) Utilization Review

1. Annual review of clinical protocols
2. Monitor compliance
3. Provide feedback for variances
4. Quarterly quality data review
5. Annual review of cost of services and opportunities for additional savings

Develop a Continuous Process Improvement Plan

(b) Clinical Integration

1. Data Registry
2. Standard/consistent clinical protocols
3. Shared IT for cost/quality analysis
4. Shared financial risk

Metrics and Measurement

- Length of stay decreased 17.5%
- HCAHPS scores soared to 98 – 99th percentile
- Readmission rate decreased from 7% down to 2-3%
- The average implant costs decreased 15%, and an average direct cost per case for primary total joint replacement decreased 7.5%

Develop Relationships with Post – Acute Providers

1. Extended Care Facility
2. Homecare Agency

Bundled Payment – Measurements

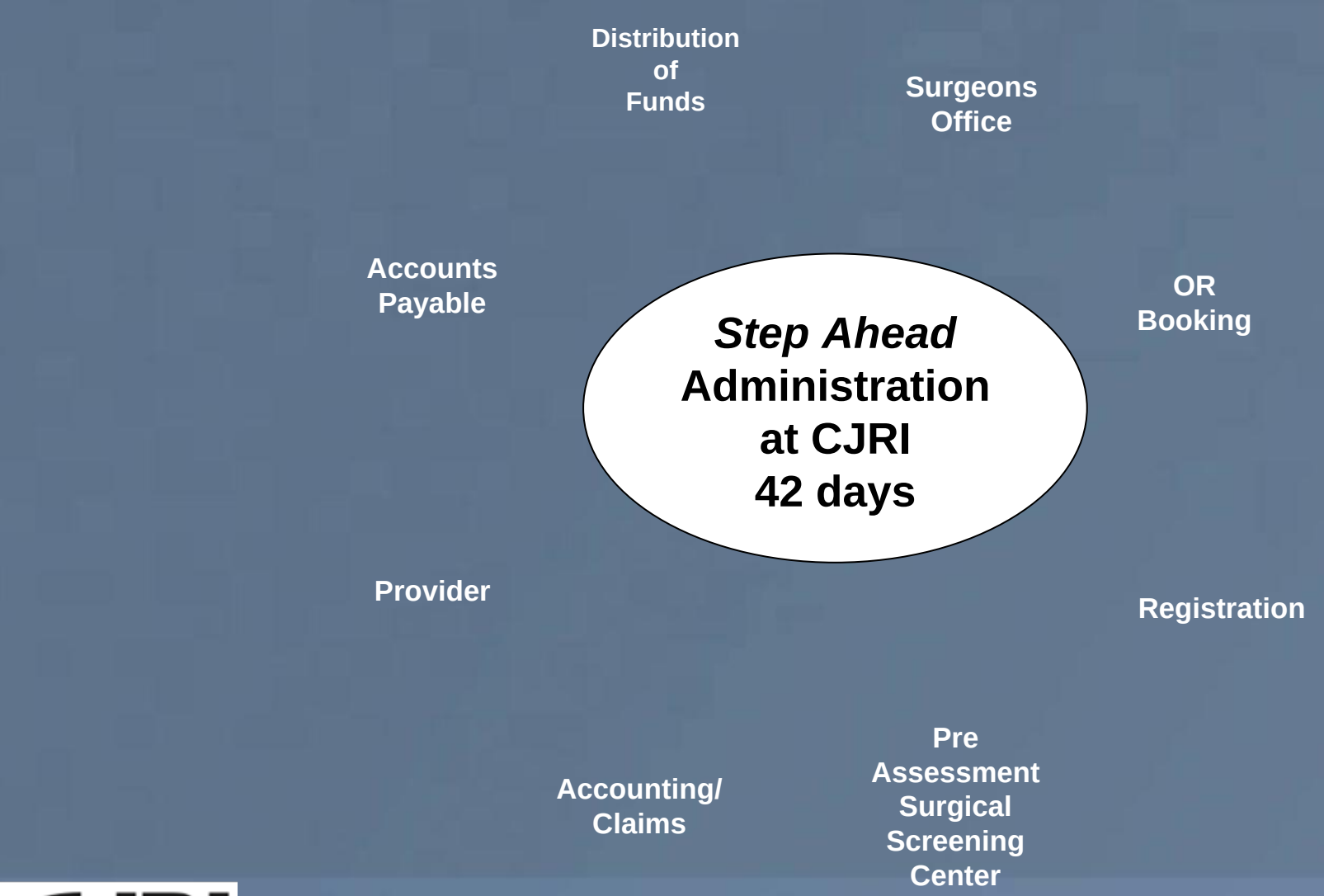
Length of stay
HCAHPS/Press Ganey scores
Re-admission rates

Outcomes

Implant costs
Cost per case
Contribution margin

Costs

Life Cycle of a Bundled Payment Claim



The "Step Ahead" Plan at CJRI

Six “prongs to our Marketing efforts:

- Commercial Payer
- Center for Medicare and Medicare Services (CMMS)
- Large Self-funded Employers
- Medical Tourism
- Large Primary Care Physician (PCP) Groups
- Accountable Care Organizations
- Under or Uninsured Patients

Challenges of Administrating a Bundled Payment Program

1. Calculating cost of manual processing
2. Monitoring and calculating cost of over runs
3. Double billing issues
4. “Retro eligibility” issues – hospital absorbs the loss
5. Co–Pays (hospital)

Bundled Payment Plans: Benefits

- Drives operational efficiencies
- Creates culture of trust and transparency
- Aligns incentives and goals
- Keeps the patient at the “top of the pyramid”
- Preserves entrepreneurial spirit
- Encourages healthy re-alignments

Partnership with Harvard Business School

Value – based health care delivery

$$\text{Value} = \frac{\text{Health Outcomes}}{\text{Cost of Delivering the Outcome}}$$

The Value approach requires a measurement two fundamental parameters:

1. Outcomes: Full set of patient health outcomes over the care cycle
2. Costs: Total costs of resources used to care for a patient's condition over the care cycle

What is Time-Driven Activity - Based Costing (TDABC)

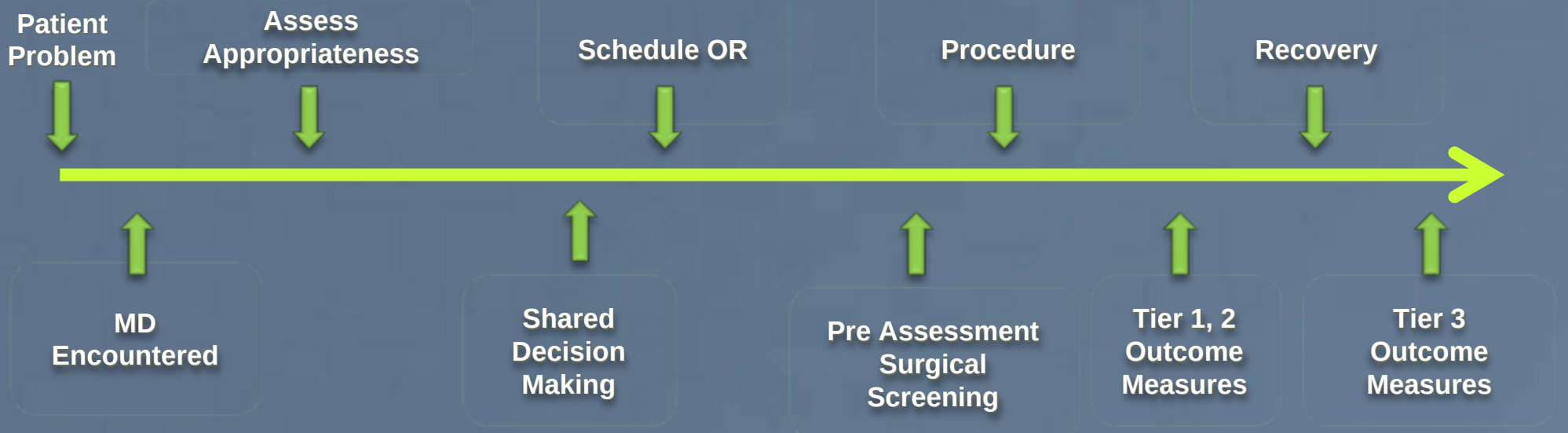
- A bottoms-up approach to costing patient care based on the actual clinical and administrative processes, and resources used to treat patients.

- Combines process mapping from industrial engineering with the most modern approach for accurate and transparent patient-level costing

Goals of TDABC

- Compliment our existing structure to improve healthcare value by achieving better outcomes at lower cost
- Strengthen our Step Ahead Product and future bundled payment negotiations
- Reduce variation in clinical processes and improve efficiencies
- Share our learning and experience on a global level to provide the highest level of care to our patients

Cycle of Care
Longitudinal Full Cycle of Care
Hip or Knee Arthoplasty



High Level Project Overview

Mobilization

- Agree on project scope, approach, timing, and deliverables
- Finalize project team members
- Complete TDABC training
- Communicate to all relevant departments
- Schedule process map meetings

Launch Project

Phase I
Maps and Models

- Augment existing maps and estimate personnel capacities with input from clinical team
- Develop first pass of the model using benchmarks and data estimates
- Finance begins data pull for resource cost rates

Understand where the money is

Phase II
Redefined Maps and Models

- Replace benchmarks with actual or estimated costs
- Allocate indirect/overhead costs
- Refine most important process maps, times, estimates and probability
- Validate model with finance and clinical teams to ensure buy in

Complete Initial TDABC Analysis

JRI

Evolution of Step Ahead Program

8/2009	Formation of a multi-disciplinary team to explore bundled payment programs
9/2010	Step Ahead Program was established
7/2012	Signed commercial provider for a bundled payment in Connecticut
5/2013	Negotiating a letter of intent for second commercial provider
5/2013	Partnership with Harvard Business School