Healthcare Payment Trends & the Landscape for Short Stay TJA

January 19, 2016
Today’s Roadmap

• Changes in the Health Care Landscape

• Bundled Payments

• Short Stay TJA

• What Does the Future Hold?
CMS Is Shifting Toward Value-based Payments for Both Physicians and Hospitals

- **Incentive Payments Only**
- **Upside/Downside Risk (Optional)**
- **Penalties Only**
- **Nonpayment**

### Timeline:
- **2008**: Nonpayment for Hospital Acquired Conditions (HACs) began in 2008; HAC penalties of up to 1% of Inpatient payments begin in Fiscal Year (FY)2015.
- **2010**: The Baseline period for the program was from July 1, 2009 to March 31, 2010; the Performance period for the FY2013 program payment determination is from July 1, 2011 to March 31, 2012.
- **2012**: The Affordable Care Act mandates that the Secretary develop VBP plans for skilled nursing facilities, home health agencies, and ambulatory surgical centers.

### Programs:
- **Hospital Inpatient Quality Reporting Program (P4R)**
- **Hospital Outpatient Quality Reporting Program (P4R)**
- **Physician Quality Reporting System (P4R)**
- **Meaningful Use (Stimulus Law)**
- **Hospital Value-Based Purchasing (P4P)**
- **Bundled Payments for Care Improvement (BPCI)**
- **Accountable Care Organizations**
- **Readmission Penalties for Low Performers**
- **Physician Value-Based Modifier**

P4P: Pay-for-performance; P4R: Pay-for-reporting; Source: Centers for Medicare & Medicaid Services

1. Program is voluntary, but penalties are/will be in place for nonparticipants.  
2. Program is voluntary;  
3. Nonpayment for Hospital Acquired Conditions (HACs) began in 2008;  
4. The Hospital Value-Based Purchasing Program (VBP) began FY2013 by affecting payments for discharges occurring on or after October 1, 2012. 

Avalere | 3
Target percentage of Medicare Fees for Service payments linked to quality and alternative payment models

- **2016**
  - All Medicare FFS
  - 85% - Payments linked to quality
  - 30% - Bundled Payments

- **2018**
  - All Medicare FFS
  - 90% - Payments linked to quality
  - 50% - Bundled Payments

*Change*
Impact of the Affordable Care Act (2010)

Aside from 15M additional covered lives, ACA payment reforms are accelerating the pace of change & the shift from volume to value

• Bundled Payments for Care Improvement (BPCI)
• Comprehensive Care for Joint Replacement (CJR)
• Accountable Care Organizations (ACOs)
• More emphasis on quality programs rewarding outcomes & patient experience
Bundled Payments for Care Improvement (BPCI) Initiative

A Voluntary CMS Program to Reduce Cost and Improve Quality Across the Episode of Care
Bundled Payments: The Big Shift

Traditional Fee-for-Service
Payment for each service regardless of quantity or quality

Bundled Payments
Payment for comprehensive, coordinated intervention

Diagram showing the difference between traditional fee-for-service and bundled payments, with multiple payments linked to different healthcare services and a single payment for bundled services.
Bundled Payments for Care Improvement (BPCI) Initiative

- Voluntary bundling program that allows choice of participation among 48 different episodes (DRGs)

- Allows providers to select clinical conditions and time frame with greatest opportunity for improvement

- Each episode of care compares costs against a targeted bundle with varying lengths & models (1, 2, 3 or 4)
### CMMI BPCI Models

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
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<tbody>
<tr>
<td>Retrospective</td>
<td>Retrospective</td>
<td>Retrospective</td>
<td>Prospective</td>
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<table>
<thead>
<tr>
<th>Pre-admission Services (3 Days)</th>
<th>Part A Inpatient Services (Hospital)</th>
<th>Part B Inpatient Services (MDs)</th>
<th>Post-Acute Costs (Part A &amp; Part B)</th>
<th>Related Readmissions (Part A &amp; B) &amp; Unrelated Readmissions (Part B only)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Icon" /></td>
<td><img src="image2.png" alt="Icon" /></td>
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**Model 2 presents the broadest opportunity to improve care by focusing on the entire continuum of care for targeted DRGs.**
How is Reconciliation implemented?

- All costs through the bundle are accrued.
- These costs are compared against the target price of the bundle.
- **If the costs are more than the target, the overage must be paid back to CMS.**
- **If the costs are less than the target, the savings may be retained and shared.**
CJR (Comprehensive Care for Joint Replacement)

A *Mandatory* CMS Pilot Program to Reduce Cost and Improve Quality Across the Episode of Care
The Elements of CJR

- CJR focus is primary *inpatient* TKA/THA
- Affects 800 hospitals in 67 MSAs as of April 1st 2016
- Similar to BPCI Model 2
- Episode lasts 90 days post discharge
- Costs reconciled annually
- Opportunity for gainsharing w/ MDs, non-MDs
- Hospitals start with all risk/reward
- Hospitals are held harmless in year one (2016)
- Quality is rewarded (keep more or pay back less with higher quality)
CCJR is compulsory – not optional

67 metropolitan areas (MSAs) affected
(~ 800 hospitals, or 25% of lower extremity joint replacement (LEJR) discharges, nationally)
One more look at TJA cost drivers…

First-setting after Hospital Discharge Has Substantial Effect on Medicare Episode Payments for Joint Replacement (MS-DRG 470)

Average Medicare Episode Payment for MS-DRG 470 by First-setting for 30-day Fixed-length Episodes (2007-2009)

Source: Dobson | DaVanzo (2012). Medicare Payment Bundling: Insights from Claims Data and Policy Implications. Medicare Episode Payment includes care from all facility-based and ambulatory care settings and excludes beneficiary co-payments. IME, DSH, copay, capital, and other third party have been removed from payments. HH PPS payments do not include payments for Part D drug or DME services that are provided under SNF, IRF, and LTCH PPS payments.
What About Outpatient TJA?

- Medicare does not pay for total TJA in the hospital outpatient department (HOPD) setting
  - CMS proposal from 2012 was withdrawn
  - Currently, uni knees paid at $10,538 in HOPD & $7,887 in ASCs

- Shorter inpatient stays on CJR horizon
  - Waiver of requirement that beneficiaries have prior 3-day inpatient hospital stay
  - SNF must have overall star rating of three stars or better
  - Begins in 2017
What About Outpatient TJA?

• CMS outpatient staff aware that some private payers cover procedures not on Medicare’s ASC coverage list

• TJA **NOT** on Medicare ASC coverage list, but some private payers are paying for TJA in ASCs

• If Medicare ever allowed ASC payment for TJA, how would they set the ASC facility fee?
Growth Largely Concentrated in Outpatient Setting

Five-Year Orthopedic Growth Trajectories

**All-Payer Volume Growth Projections (2013-2018)**

- **Orthopedic Services**
  - Outpatient: 15.4%
  - Inpatient: 5.1%

- **Spine Services**
  - Outpatient: 22.9%
  - Inpatient: 0.1%

**Volume Growth Projections by Key Sub-Service Lines (2013-2018)**

- Spine: 23%
- Injections & Blocks: 15%
- Sports Medicine: 13%
- Hand: 12%
- Joint Replacement: 9%
- Foot: 8%
- Fracture/Dislocation Treatment: 4%
- Other Surgical Spine: 2%
- Fusion: 2%
- Orthopedic Trauma: 0%
- Sports Medicine: -1%
- Medical Spine: -7%

**Notable Figures**

- **157%** Expected five-year growth of outpatient joint replacements
- **169K** Projected volume of outpatient joint replacements in 2018

Source: Advisory Board Inpatient and Outpatient Market Estimator tools.
What Does the Future Hold?

• CMS will continue to scrutinize BPCI & CJR for modifications and potential expansion

• CMS *may* consider expanding TJA to HOPD and/or ASC setting

• Some commercial insurance already instituting bundled payment and outpatient coverage of TJA

• Payments to MDs and hospitals will be much more tied to quality outcomes

• More risk-sharing and episode of care assurance programs
What Does the Future Hold?

- Greater focus on technologies & services that help MDs & hospitals succeed under CMS initiatives
- Higher ortho volumes in outpatient setting
- More use of protocols & implants that potentially lead to less rehabilitation
- Post-acute care pathways that improve outcomes at less cost by reducing readmissions, complications etc.
- More hospital partnering with home health agencies
We are smith&nephew
Short Stay Fad or Future?
Ken Cherry, MD
Disclosure
Smith & Nephew Consultant
The Future

Demand for TJR expected to grow at unprecedented rates
By 2030 annual projected growth
• TKR projected to 3.48 million procedures
• THR projected to 572K procedures
In 2013, about 2% of TJR performed in Outpatient Setting
• 1,051,000 Total TJR performed
• 17K Performed in outpatient setting
What’s Driving This?

1. Retail Consumer/Cost
   - Price and quality transparency
2. Payers (Pay for Value)
3. Technology
4. System of CARE Improvements
5. Physician ownership in ASC’s
Retail Consumer/Cost

Average patient is younger
- By 2016 50% of both THA and TKA patients will be less than 65 years old

Patients are more informed
- Patients are looking for specialized orthopaedic surgeons
- Patients are looking for joint replacement programs
- Minimally invasive techniques
- Shorter length of stay
- Quicker rehabilitation and recover

Consumer Directed Health Plans (CDHP)
- High Deductibles
- Personal spending accounts
The Future is CDHP

Majority of Large Employers Expect to Offer CDHPs Five Years from Now

All Employers
- 11% will offer as the only plan
- 34% will offer alongside other medical plan choices
- 54% will not offer

Large Employers
- 9% will offer as the only plan
- 52% will offer alongside other medical plan choices
- 40% will not offer

Employers to offer CDHPs 5 Years from now
- All Employers
  - 11% only option
  - 34% combo of options
  - 54% will not offer
- Large Employers
  - 9% only option
  - 52% combo of options
  - 40% will not offer


• Providers grouped into tiers based on cost/quality
• Consumers rewarded with favorable deductibles for choosing high quality/low cost tiers

In 2014 CDHP enrollment jumped 39% to 48%
Payors (Pay for Value)

Flowchart:
- **Current Hospital**: Quality → Cost
- **Future Hospital**: Quality → Cost
- **Short Stay Model**: Quality → cost

**Pay for Value**
- Pay for volume
- No quality measured
- Quality per click
- Process improvement
- Quality outcomes of episodes
- Whole system improvement

**Value-Based Payment**

**Care Coordination**
Payors (Pay for Value) - Example

Highmark (Blues of W. PA)

• $34,000: Hospital cost to insurance for TKA
• $13,000: Surgery Center cost to insurance for TKA

$21,000 Difference

3 Million Dollars Saved over 150 Cases
Highmark:
- Diamond Provider
  - VISIONAIRE
  - JOURNEY II
  - Trained by certified team
- Surgeon Incentive
  - Additional reimbursement
- Patient incentive
  - $0 deductible
  - $0 copay
“Quality comes first when selecting doctors for tiered networks, and then we select according to cost efficiency.”

Amy Oldenburg
(Aetna Insurance)
Technology – Recipe for Success

JOURNEY II BCS
High functioning kinematically correct knee
Designed to achieve normal stability throughout the ROM

VISIONAIRE
Pre-op Planning minimizes soft tissue damage/ pain
Reduction in instrumentation, inventory, and sterilization cost

VERILAST TECHNOLOGY
Combination of OXINIUM, Oxidized Zirconium and highly cross-linked polyethylene
System of CARE Improvements

Penalties issued for underperforming health systems
• Deductions from reimbursement
• Maximum penalty as high as 5.5%

Hospital Acquired Conditions Reduction Program
• Top 25% with highest HACs penalized 1%

Hospital Value-Based Purchasing Program
• Poor outcomes and efficiency measures penalized 1.5%
• Top performers rewarded bonus

Hospital Readmission Reduction Program
• THA and TKA added to reporting measures
• Max penalization 3%

Hospital Inpatient Quality Report
• Incentives high quality care with easier reporting methods

https://www.healthcatalyst.com/understand-value-based-reimbursement
Physician ownership in ASC

Accountability
• Gain increased control over surgical practices
• Increased control over patient’s quality of care
• Assemble teams of specially trained and highly skilled staff

Convenience
• Ensure the equipment and supplies are best suited to their techniques
• Design facilities tailored to their specialties
• Allow patient’s specialized treatment options

Additional Income
• Facility fees
• Lower cost to operate

http://www.advancingsurgicalcare.com/whatisanasc/benefitsofphysicianownership
BPCI

Accountability
- Improves patient selection
  - BMI
  - Nutritional status
- Gain increased control over surgical practices
- Increased control over patient’s quality of care
- Assemble teams of specially trained and highly skilled staff

Convenience
- Ensure the equipment and supplies are best suited to their techniques
- Design facilities tailored to their specialties
- Allow patient’s specialized treatment options

Additional Income
- Ability to share in cost savings
- Ability to attract large payor groups (corporations)
- Lower cost to operate

http://www.advancingsurgicalcare.com/whatisanasc/benefitsofphysicianownership
“It’s like bringing Moneyball to healthcare.”
- Brett Morris
(President Healthnet Arizona)
Barriers

- Home Health Agencies
- Insurance Carriers
Getting Started
Getting Started – What’s to consider?

• Patient Selection
• Patient Education
• Surgical Technique
• Multimodal pain management
• Rehabilitation
• Home Nursing Agency
• Implant
Patient Selection is KEY!

Balancing Act

1. Avoiding complications
   - 90% of major complications occur within first 4 days after surgery\(^1\)

2. Create a successful program
   - 96% home same day
   - 3 readmissions none related to early d/c\(^2\)

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Patient Selection – Holistic Approach

- Physical
- Mental
- Social
Predictors of increased LOS

Winemaker Study followed 1459 Patients (61.7% TKA; 38.3% THA)\(^3\)

- Longer Length of Stay = >4 days
  - THA
  - Age>75
  - ASA 3 or 4
  - Cardiovascular comorbidities
  - Renal disease

\(^3\)Not all total joint replacement patients are created equal: preoperative factors and length of stay in hospital. Winemaker et. al. Can J Surg. 2015 Apr
Predictors of increased LOS

**BMI > 30**
- 25-30 overweight
- 30-35 class I
- 35-40 class II
- > 40 class III
  - Wound complications
  - Infections
  - Worse outcomes
  - Higher revision rates

**BMI < 40 and Healthy**
- > 100lbs over ideal body weight
- BMI > 40
  - BMI > 35 and has obesity-related healthy conditions:
    - HTN
    - DM
    - Sleep Apnea
Preoperative HGB

- Preoperative Hgb < 13
  - Ours is > 10 **
- Patient weight < 100lbs
- Surgical duration > 90 minute
- Anesthesia visit critical
- Tranexamic acid
- Minimally invasive surgery
- Streamlined surgery with Visionaire
- Team/protocol driven approach

Ideal Patient

- I enjoy playing tennis.
- My knee hurts every day.
- My doubles partner had his knee done by you and loves it.
- My wife can help me at home.
- When can you do my knee?
Ideal Patient

- Young
- Not obese
- Healthy
- Favorable anatomy
- Active
- Well-educated to manage expectations
- Mentally strong
- Motivated to go home
- Good social support with coach

Favorable home environment
- Review of medications
- Preoperative functional ability
- Home environment
- Support system
- Predict assistance needed in postoperative period
Patient to Avoid

Limited Preoperative Function
- Marked functional limitations
- Comorbid conditions
- Preoperative functional assessment

≥ 4 Allergies⁵
- Less SF 36 improvement
  - ≥4 allergies (+4.2)
  - 0-3 allergies (+10.0)
- Less WOMAC improvement
  - ≥4 allergies (+21.4)
  - 0-3 allergies (+27.2)

Proceed with Caution
- Work Comp
- Fibromyalgia
- Chronic Pain
- No appendix, gall bladder...

⁵Are patient reported allergies a risk factor for poor outcomes in total hip and knee arthroplasty? Graves et. all, AAHKS.org, 459 patients
Key Takeaways

• Healthy, motivated patients who are mentally strong, have excellent support at home and have real arthritis
• Team preoperative assessment
• Start Simple!

5Are patient reported allergies a risk factor for poor outcomes in total hip and knee arthroplasty? Graves et. all, AAHKS.org, 459 patients
My Experience
Overview of ASC

- Advanced Center for Surgery in Altoona, PA
- Started Early 2012
- Only approved ASC to perform TJA by PA Department of Health
- FREESTANDING SURGICAL CENTER
- 0.125 Stay NOT 23hr program
  → Home in 3 hours from surgery
- Highly advanced protocol
  → Patient Selection
  → Perioperative pain management
  → Home nursing/Home PT
Patient Demographics

• Age 22-76
• 133 Females
• 106 Males
• BMI less than 50
  • BMI highest is 52
• ASA 1 and 2
  • 19 ASA 3
Case Demographics

- 239 Total Joint replacements to date
  - 64 Hip
  - 8 Hip Resurfacing
  - 151 Knee
  - 7 Uni
  - 15 Shoulder
  - 2 Ankle
- One Revision (UKA to TKA)
Recipe for Success

JOURNEY II BCS
High functioning kinematically correct knee

VISIONAIRE
Pre op Planning minimizes soft tissue damage/ pain
Single use instruments reduce risk of contamination

Patient Education/Management
Pre op
Day of surgery
Post op
Same-Day Joints

A surgery center sends patients home and happy in 4 hours. P.46

- Pain and PONV Control
- Efficient Arthroscopy
- New Rules for Reducing SSIs
- 3D C-Arms in Practice
- Power Tools Up to Speed?
<table>
<thead>
<tr>
<th><strong>DO</strong></th>
<th><strong>DON'T</strong></th>
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<tbody>
<tr>
<td><strong>DO</strong> establish universal total joint protocols and patient-selection criteria.</td>
<td><strong>DON'T</strong> assume that all members of the care team know and understand these protocols and criteria.</td>
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<tr>
<td><strong>DO</strong> educate all members of the perioperative care team, including the patient and his support team.</td>
<td><strong>DON'T</strong> wait to educate after the surgical procedure.</td>
</tr>
<tr>
<td><strong>DO</strong> screen and select appropriate surgical candidates well in advance of the planned procedure. A personal anesthesia consultation is vital to clear all candidates. Select only highly motivated patients with appropriate home care support systems in place.</td>
<td><strong>DON'T</strong> select patients who aren't motivated to return home immediately after surgery or who are unsure their home support systems are adequate.</td>
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<tr>
<td><strong>DO</strong> screen patients at the last minute.</td>
<td><strong>DON'T</strong> screen patients at the last minute.</td>
</tr>
<tr>
<td><strong>DO</strong> plan for the procedure. Identify all roles and responsibilities for patient care throughout the planned procedure</td>
<td><strong>DON'T</strong> change the plan without full communication within the care team.</td>
</tr>
<tr>
<td><strong>DO</strong> assess the care given and the outcomes of each surgery using quality assessment/quality improvement data collection methods.</td>
<td><strong>DON'T</strong> make last-minute changes.</td>
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— Dave Berkheimer, BSN, CRNA

Mr. Berkheimer (dberkheimer@remcareanesthesia.com) is president and CEO of RemCare Anesthesia Solutions in Altoona, Pa
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<tr>
<td>Establish universal protocols and patient selection criteria.</td>
<td>Don’t assume that all members of the care team understand protocols.</td>
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- Evidence based protocol
- Universal acceptance
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<th>DO</th>
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<tr>
<td>Do screen and select appropriate candidates.</td>
<td>Don’t select unmotivated patients.</td>
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- Home environment
- General health
Dedicated Home Nursing Agency

- Establish protocols
- Seamless patient care
- Avoids readmissions
- Monitors outcomes
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<td>Don’t make last minute changes.</td>
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<tr>
<td>Roles and responsibilities throughout episode of care</td>
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<tr>
<td>Pre-op site visit</td>
<td></td>
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<tr>
<td>Evaluate environment and pre-op exercises</td>
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<tr>
<td><strong>DO</strong></td>
<td><strong>DON’T</strong></td>
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<td>Do educate all members of the patients</td>
<td>Don’t wait to educate after procedure.</td>
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<td>support team.</td>
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KISS
Education/Preparation

- Explain pathology
- Explain procedure
- Discuss pain protocol and options
- Be available
**Explain Procedure**

### TKA Cutting Block Surgical Alignment Plan

<table>
<thead>
<tr>
<th>Patient</th>
<th>Last, First</th>
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<tbody>
<tr>
<td>Anatomy</td>
<td>Right</td>
</tr>
<tr>
<td>Surgeon</td>
<td>Dr. Surgeon</td>
</tr>
<tr>
<td>Implant</td>
<td>Legicon Primary</td>
</tr>
<tr>
<td>Surgery Date</td>
<td>05/20/12</td>
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#### X-Ray Measurements

- **Pre-op Full Leg Deformity**: 2.3 Varus
- **Mechanical Axis Femur Valgus Angle**: 3.5°
- **Tibia Deformity**: 2.2°

#### Femur Part No.
- **PMXXXXXXV1**
  - **Varus/Valgus Alignment**: 5 Degrees
  - **Mechanical Varus Preference**: 0°
  - **External Rotation**: A/P Axis
  - **Flexion**: 4°
  - **Distal Femoral Resection**: Resect To Trochlear Sulcus
  - **Size**: 4
  - **Distal Medial Resection**: 9.5 mm
  - **Distal Lateral Resection**: 6.0 mm
  - **Distal Sulfur Resection**: 2.5 mm
  - **Posterior Medial Resection**: 12.0 mm
  - **Posterior Lateral Resection**: 9.5 mm

#### Tibia Part No.
- **PMXXXXXXV2**
  - **Varus/Valgus Alignment**: Mechanical Axis Off Patient X-Ray
  - **External Rotation**: Align RV Medial 1/3 Tibial Sulfur
  - **Posterior Slope**: 3 Degree
  - **Planned Insert Thickness**: 11 mm Insert Thickness
  - **Size**: 2
  - **Proximal Medial Resection**: 6.5 mm
  - **Proximal Lateral Resection**: 11.0 mm
  - **Resection to Eminence**: 15.0 mm

#### Notes:

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**Visionaire Femur Alignment**

- **A/P View**
  - **Distal Reduction**: 0.5 mm Off Medial
  - **6.5 mm Off Lateral
  - **5.5 mm Off Sulcus
  - **Varus/Valgus Alignment**: 5 Degrees

- **Distal View - 90° Flexion**
  - **External Rotation**: A/P Axis
  - **Relation to A/P Axis**: RCA 3°
  - **PCA**: 3.0° Internal
  - **Posterior Reduction**: 10.0 mm Off Medial
  - **6.0 mm Off Lateral
  - **Implant Boundary**: Most Posterior Horizontal Line

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Smith & Nephew – Patient Enhancement

• Provides patient education materials in print and digital form
• Provides surgeon marketing materials
Pain Protocol

- Oxycontin 10mg
- Tylenol 1000mg
- Lyrica 75mg
- Celebrex 200mg
- Reglan 10mg
- Pepcid 20mg
- Decadron 8mg
- Tranexmic Acid 1g IV
Be Available

• Follow up call direct to patient
• Contact info
Faster recover without the use of a tourniquet in total knee arthroplasty
Ejaz, etal

• KOOS subscores and better early ROM
• Postoperative pain analgesic consumption decreased without tourniquet
The medial trivector approach in total Knee arthroplasty.

Fisher DA1, Trimble SM, Breedlove K.

- Randomized study
- Achieved independent SLR two days faster than parapatellar
- KINCOM at 6 months, 15 % stronger concentric contractions
The effects of a tourniquet used in total knee arthroplasty: a meta-analysis.
Zhang, et al

• Postoperative ROM in the tourniquet group was 10.4 degrees less than non-tourniquet group P<0.01
• Thromboembolic events greater in tourniquet group P=0.02
Post-Operative Medications

- NO PARENTAL NARCOTICS
- ASA 325MG
- Decadron 8MG
- Toradol 30MG IV
- Norco PRN
- Celebrex 200MG
Post-Operative Activity

• OOB with walker
• NO BRACE
• Typically 2 hours post-op
Results

• 98% Satisfaction rate
  • 1 pt was “overwhelmed” but has done great
  • 1 pt states too many steps to get into home
  • 1 pt states husband not helpful at home and would reconsider
  • All over 93% rated program excellent
• 1 readmission-one week post op-felt weak, no diagnosis made, w/u totally normal, d/ced home next morning
• FALLS (2) except one at 6 weeks-treated with capsule repair/one fall at home same day
• One deep wound infection-treated with I&D
• One symptomatic PE 3 weeks post op
THANK YOU

Ken Cherry, MD