Outpatient Total Joint Replacements
How to Prepare and Deliver High Quality of Care

Becker’s 12th Annual ASC Conference
Chicago, IL
6/12/2014
Disclosure

- Orthopaedic Advantage, LLC is a global healthcare consulting firm offering strategic planning, business development, and organizational performance improvement strategies specifically for orthopaedic, joint replacement, spine, fracture care, and sports medicine service lines.

- A subsidiary of Biomet, Inc.
Today’s Objectives

1. Review the Current Trends in Outpatient Joint Replacement and Why the Shift is Occurring
2. Identify the Challenges, Opportunities and Advantages of Providing Arthroplasty Surgery in an Ambulatory Setting
3. Understand the Planning Process, Patient Selection Criteria and Implementation Steps Required to Successfully Perform Outpatient Arthroplasty
4. Summarize the Pre-op, Perioperative and Post-op Protocols Required to Successfully Manage these Procedures
5. Review the Clinical and Financial Results of Outpatient Joint Replacement
Orthopaedic Services are Shifting

• Procedures Moving to the Ambulatory Setting
• Patients are Destination Shopping
• Higher Expectations of Consumers
• Patient Experience
Total Joint Replacement Shift

Insurance Companies Steering Patients Toward ASCs
Insurance companies actually approached ASC’s with favorable contracts because they want to steer their patient volume to these more cost-effective ASCs rather than keep them in the hospital systems.

Take Advantage of the Industry Springing up Around Outpatient Orthopedics
More orthopedic surgeons are training on minimally invasive surgery techniques during their fellowships.
### Outpatient Joint Replacement

<table>
<thead>
<tr>
<th>Procedure</th>
<th>2012 Volume</th>
<th>Growth Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unicompartmental Knee Arthroplasty (UKA)</td>
<td>9K</td>
<td>253%</td>
</tr>
<tr>
<td>Total Hip Arthroplasty (THA)</td>
<td>4K</td>
<td>240%</td>
</tr>
<tr>
<td>Total Knee Arthroplasty (TKA)</td>
<td>20K</td>
<td>142%</td>
</tr>
<tr>
<td>Hip Arthroscopy</td>
<td>21K</td>
<td>136%</td>
</tr>
<tr>
<td>Shoulder Arthroplasty</td>
<td>11K</td>
<td>95%</td>
</tr>
<tr>
<td>Carpal Tunnel Release</td>
<td>69K</td>
<td>16%</td>
</tr>
<tr>
<td>Knee Meniscus Repair</td>
<td>1M</td>
<td>13%</td>
</tr>
<tr>
<td>Shoulder Arthroscopy</td>
<td>307K</td>
<td>12%</td>
</tr>
<tr>
<td>Fracture Treatment</td>
<td>2.8M</td>
<td>7%</td>
</tr>
<tr>
<td>Splint Application</td>
<td>1.5M</td>
<td>3%</td>
</tr>
</tbody>
</table>

3 Based on volume at all sites of care.

Advisory Board Growth Estimates 2012-2017
Top Ten Traits of Successful ASC’s

1. Committed, open minded, forward thinking administration and providers
2. Educated and empowered staff
3. Physicians that are engaged and have effective leadership structure
4. Reimbursement strategy with the right mix of patients and payers
5. Excellent vendor and payor relationships
6. Commitment to providing superior quality and service
7. Accurate financial systems
8. Data shared and communicated across physicians and staff
9. Clear marketing and growth strategy with resources to support
10. Facilities and equipment are current and well maintained
Defining Orthopaedic Excellence - COE

- Physical Expertise & Leadership
- Volume
- Outcomes & Safety
- Cost of Care
- Evidenced Based Care
- Standardized Protocols & Processes
- Dedicated Facility & Staff
- Patient Preparation & Education

Blue Distinction Center

Blue Distinction Center+

Achieve the Gold Seal

Orthopaedic Advantage, LLC

ASC Advantage Surgeon Opportunity

• Enhanced Patient Experience for Increased Satisfaction
• Improved Productivity and Efficiency
• Lower Costs
• Schedule Predictability
• More Surgeon Controlled Environment
• Convenience and Ease of Practice
• Less Rounding
• Provides Significant Differentiation
• Expands Service Area
Should We Get Into the Outpatient Joint Business???
Eight Key Challenges of Joint Replacement in the ASC

1. **Payer Trends**
   - ASC reimbursements
   - CMS guidelines

2. **Education**
   - Patient
   - Referral source
   - Staff

3. **Competition**
   - Market Share
   - Marketing

4. **Operating Room**
   - Efficiency
   - Equipment
   - Staffing

5. **Patient Identification and Selection**
   - Age
   - Lifestyle

6. **Pain Management**
   - Anesthesia protocols
   - Discharge

7. **Blood Utilization**
   - Patient donated
   - Blood bank

8. **Efficiency of Operations & Outcomes**
   - Benchmarking
   - Outcome Collections
   - Order set/Pathway Standardization
   - Care at home programs
Planning for Joints in the ASC

• Physician and Staff Education
• Evaluate Physical Space
• Determine any Scheduling Limitations
• Assess Resources – equipment and staff
• Review Cost Considerations
• Team Driven Clinical Pathways and Order Sets
• Establish Reimbursement Strategy
  – Pre-certifications
  – Pre-approvals
  – Carve outs
• Ensure 3rd Party Ancillary Services are Prepared
• Determine Emergency Plan
• Stage Your Launch – partials then totals building volume gradually
Comprehensive Integration

- Patient/Caregiver
- Primary care physician
- PT/Homecare
- Surgeon Office
- Surgical Center
  - Clinical Director
  - Scheduling
  - PACU
  - Surgeon
  - Anesthesia
  - Materials Manager
  - OR Staff
- Vendors and Payers
- Community
Steps to Clinical OP Joint Success

- Orthopaedic Assessment
- Preoperative Medical Clearance
- Preoperative PT Assessment and “Prehab”
- Preoperative Education
- Preoperative Analgesia
- Perioperative Anesthetic
- Efficient Surgery
- Wound Care and Post op Pain
- Post op Care and Discharge Criteria
- Post Discharge
- Outcomes Measuring, Benchmarking and Tracking
Patient Selection Process – “Green Light”

- Educated and Motivated Patient
- Failed Conservative Treatments
- Appropriate Insurance Coverage
- Functionally Independent
- Have Help at Home
- Completed Pre-screen H and P
- Attend Pre-op Class
Patient Selection Process – “Red Light”

- Cardiac Conditions –
  - Previous MI
  - Valve Disease
  - CHF
  - Arrhythmia
- Pulmonary Disease such as COPD
- BMI > 40
- GI such as history of post op ileus
- Liver Disease – Cirrhosis
- Hematology Issues such as HGB <13
- GU –
  - History of urinary retention
  - Symptomatic BPH
  - Prostate cancer
- Neurology
  - History of dementia or post op delirium
  - Prior CVA
- Organ Transplant
Pre-op Education and Prep

- Shift Perception of Need for Inpatient Care
- Facility Tour & Staff Introduction
- Review Patient History and Meds
  - Improves day of efficiency
- Patient Education
- Pre-op PT Evaluation (optional)
  - Gait, walker and exercise instruction
  - Identifies needs at home
  - Home and OP PT (develop relationship)
- Improve Patient and Family Preparation for Day of Surgery and Transition to Home Environment
Day of Surgery Process

• Easy and Convenient Intake
• Comfortable Place for Families
• Preoperative Analgesia
• Perioperative Anesthetic
• Safe and Efficient Surgical Environment
• Communication with Family
• Smooth Transition Home
Transition Home and Follow-up Care

- Post-op Functioning and Mobility
- Review Discharge Criteria and Precautions
- Confirm Pain Management and Wound Care Instructions
- Ensure Home Environment Prepared
- Proper Equipment is Available
- PT and/or Home Care Plan
- Next day Call from Surgeon or Staff
- Follow-up Appointments Scheduled

Discharge Instructions

Day of Surgery
1. Relax and elevate leg as much as possible.
2. Resume a regular diet as tolerated.
3. Use Ice Compression Wrap as directed (instructions are located on the ice packs).
4. Please use crutches or a walker to help with balance and walking for first few days after surgery.
5. Begin taking your pain medication with prior to the nerve block anesthesia wearing off. Failure to do so may lead to difficulty with pain control for the first 24-48 hours.

First Post-Operative Day
1. Continue use of Ice Compression Wrap every 2 hrs.
2. Take pain medication as needed.
3. Elevate ankle above the knee and the knee above the hip to reduce swelling.
4. Use crutches or a walker as needed.

Second Post-Operative Day
1. May remove ace wrap, surgical bandages, and shower. Pat dry gently and cover with TED hose.
2. Continue use of Ice Compression Wrap as needed for pain and swelling.
3. If the knee has noticeable swelling, continue to wrap with ace bandage over the top of the TED hose and a bandage over the wound.
4. Increase activity as pain allows.
5. Work on knee bending activities 3-5 times a day with the goal of 90 degrees by 2-3 weeks postoperatively.
6. Outpatient or Home Health Physical Therapy may begin to further help control swelling, improve walking, decrease pain, and improve motion in your knee.

Unless otherwise noted, you can bear weight on the affected leg as you can tolerate. The nerve block anesthesia may take up to 12 – 18 hours to wear off. It is important to use crutches or a walker to prevent falls during this time. Most patients use crutches or a walker for 1 to 2 weeks. The amount of pain you experience and the improvement in your limp should be your guide for discontinuing the crutch use.

You may use the knee immobilizer for support until the nerve block is worn off. You may remove this at night but please use it until you can raise your leg off the bed while straight. You may bend your knee as tolerated.

Return to our office in _____________ at ____________.
EMERGENCY PLAN
Measuring Success

• Evidence Based
• Improved Satisfaction & Consumer Preferred
• Increased Volume & Market Share
• Improved Operating Room Efficiency
• Decreased Cost per Case
• Increased Contribution Margin/Case
• Market Differentiation
Create Tools for Success

- Patient Selection Criteria
- Patient Education Notebook
- Standardized Anesthesia Protocols
- Standardized Pain Protocols
- Standardized Order Sets
- Clinical Pathways for Short Stay
- Discharge Instructions
- Follow up Care Plan
- Outcomes and Benchmarks
- Comprehensive Marketing Plan
Outpatient Joints Outcomes Case Study

Utah Hip and Knee Center

- Ten patients were in each group (Outpatient and Inpatient) and had surgery by the same surgeon in the same hospital.
- Average hospital bill for the outpatients was $4000 less.
- Average charge including pre-hospital, intra-hospital, and post-hospital care for the outpatients was $2500 less.
- The total average reimbursement was $1155 less for the outpatients.

Margins should remain same or higher despite lower reimbursement due to cost reductions.
Outpatient Joints Outcomes Case Study

Arthritis Institute at Good Samaritan Hospital

• 53 patients went home the same day of surgery
• Patients maintained a diary for the first 3 weeks and completed a satisfaction questionnaire at 6 weeks.
• Patients were followed for 6 months for occurrence of complications.
• There were no medical readmissions.
• 96% were satisfied with the decision to have outpatient total hip arthroplasty.
• There were no objective physical benefits identified.

The Arthritis Institute at Good Samaritan Hospital, Los Angeles, CA
July 2009.
Outpatient Joints Outcomes Case Study

• 232 patients underwent an outpatient TJA by one surgeon.
• Criteria for surgery consisted of Body Mass Index<40 kg/m2, no active cardiopulmonary issues, no sleep apnea, no history of deep venous thrombosis or pulmonary embolus.
• 148 patients were matched using the same outpatient criteria but underwent inpatient (minimum two-day hospital stay) TJA.
• 235 patients (137 outpatient and 98 inpatient) completed a telephone survey related to hospital readmissions, unplanned care and patient satisfaction.
• Study found no statistical difference for readmission, emergency room visits or patient satisfaction in either group.

AAOS 2014 Annual Meeting
David N. Vegari, MD; Jeffrey G. Mokris, MD; Susan M. Odum, PhD; Bryan D. Springer, MD
Outpatient Joints Outcomes Case Study

<table>
<thead>
<tr>
<th>64 total Knee Patients</th>
<th>Mean length of stay in days (range)</th>
<th>Mean Knee Society scores in points (range)</th>
<th>Mean range of motion in degrees (range)</th>
<th>Mean satisfaction score in points (range)</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Knee score</td>
<td>Function score</td>
<td></td>
</tr>
<tr>
<td>Outpatients</td>
<td>0</td>
<td>94 (67–100)</td>
<td>86 (50–100)</td>
<td>123 (100–140)</td>
</tr>
<tr>
<td>Inpatients</td>
<td>3 (2–4)</td>
<td>93 (48–100)</td>
<td>86 (50–100)</td>
<td>121 (105–140)</td>
</tr>
<tr>
<td>p value</td>
<td>&lt; 0.001</td>
<td>0.26</td>
<td>0.966</td>
<td>0.289</td>
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Published by The Association of Bone and Joint Surgeons 2009
Are Joints Profitable in the ASC?

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<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
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<tbody>
<tr>
<td>Case Volume</td>
<td>175</td>
<td>210</td>
<td>252</td>
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<tr>
<td>Estimate Payment</td>
<td>$15,500</td>
<td>$15,500</td>
<td>$15,500</td>
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<tr>
<td>Net Revenue</td>
<td>$2,712,500</td>
<td>$3,255,000</td>
<td>$3,906,000</td>
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<tr>
<td>Estimated Cost</td>
<td>$8,650</td>
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<tr>
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<td>$1,198,750</td>
<td>$1,438,500</td>
<td>$1,726,200</td>
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*Payment and cost estimates based on actual study of ASCs in Southeast and Northwest.*
Minimally Invasive Outpatient Total Hip: financial analysis

Abstract

• Compared outpatient THA with costs of inpatient THA
• 10 patients in each group
• Surgery by the surgeon in the same hospital
• Average hospital bill for outpatients was $4000 less than for the inpatients
• Total average charge including prehospital, intrahospital and posthospital care for the outpatients was $2500 less than for the inpatients.
• Total average reimbursement was $1155 less for the outpatients
• Results of this pilot study show that outpatient THA is financially advantageous.
Summary – Keys to Success

• Engaged Providers
• Make sure Payers will Support the Program
• Design and Implement the Plan that fits your Market
• Engage the Key Stakeholders in the Planning Process
• Provide an Exceptional Patient Experience
• Educate and Train the Delivery Teams
• Have an Emergency Protocol
• Measure and Report Your Results
Thank You!

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