TOTAL KNEE ARTHROPLASTY:

WAY MORE THAN ICE, TRANSFERS AND CPM

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Coordinator of Rehabilitation Clinical Programs
Washington Hospital Healthcare System - Fremont CA
DISCLOSURES

No conflicts of interest or financial benefits

Expert Reviewer
• American Academy of Orthopedic Surgeons Clinical Practice Guideline – Total Knee Arthroplasty

• Institute for Healthcare Improvement and Premier, Inc. – Integrated Total Joint Pathway
DISCLOSURES

Lecturer – GREAT Seminars and Books
Total Joint Arthroplasty

Co-Author
Clinical Practice Guideline Group - Best Practice in the first 7 days after Total Knee Arthroplasty (Systematic Review)
LEARNING OBJECTIVES

1. Scrutinize current clinical practice in the acute care setting for patients with total knee including benchmarks and examination of the payment bundling.

2. Review the published evidence-based practice interventions and identify areas ripe for research.

3. Discuss the successful current practice of a high-volume community hospital joint arthroplasty program and components that have make it thrive. This includes discussion of the existing "rapid recovery," "enhanced recovery”, and "fast track" models, which challenge traditional acute care clinical practice.

4. Discuss AND use the skills of community partners to improve functional outcomes, clinical practice, patient satisfaction, and interprofessional relationships.
LEARNING OBJECTIVES

• Program goals in the acute care setting for total knee arthroplasty
  – Functional outcomes for safe discharge
  – CCJR implementation and the Rehab role
  – Our program outcomes
  – Working with those outside of your system
• Discussion / questions
LAST POINTS FIRST

CONTACT INFORMATION:

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Total Joint Arthroplasty SIG – Academy of Acute Care Physical Therapy
Totaljointtherapists@yahoogroups.com
WHERE ARE WE?
CPM – CONTINUOUS PASSIVE MOTION

Graphic credit: http://www.slideshare.net/tooleyjp/spectrum-inservice

- No clinically important effects on active knee flexion, ROM, pain, function or quality of life to justify its routine use.
- May reduce the risk of manipulation under anesthesia and risk of developing adverse events although the quality of evidence supporting these findings are very low and low, respectively.
- The effects of CPM on other outcomes are unclear.
CPM – CONTINUOUS PASSIVE MOTION

Choosing Wisely initiative –
http://www.choosingwisely.org/societies/american-physical-therapy-association/

• Don’t use continuous passive motion machines for the postoperative management of patients following uncomplicated total knee replacement.
• The cost, inconvenience and risk of prolonged bed rest with CPM should be weighed carefully against its limited benefit. As members of interprofessional teams involved in post-operative rehabilitation of patient following total knee replacement, physical therapists have a responsibility to advocate for effective alternatives to CPM for most patients.
ICE / CRYOTHERAPY
ICE / CRYOTHERAPY


- Potential benefits of cryotherapy on blood loss, postoperative pain, and range of motion may be too small to justify its use.
- The quality of the evidence was very low or low for all main outcomes.
- Well designed randomised trials are required to improve the quality of the evidence.
TRANSFERS

Expectations in the acute care setting
• Up in chair day of surgery
• Starting exercise programs day of surgery
  • Tayrose (2013)
  • Raphael (2011)

Problems
• Hypotension
• Falls
• Anesthesia effects on decreased motor control

Graphic Credit:
http://www.atitesting.com/ati_next_gen/skillsmodules/content/ambulation/images/GaitBelt.jpg
EARLY POSTOPERATIVE OUTCOMES


- The 4 functional milestones selected were the ability to perform supine to sit transfers; sit to stand transfers; ambulation to 100'; and the ability to climb stairs.
“the Comprehensive Care for Joint Replacement (CCJR) Model, would test bundled payment and quality measurement for an episode of care associated with hip and knee replacements to encourage hospitals, physicians, and post-acute care providers to work together to improve the quality and coordination of care from the initial hospitalization through recovery”.

PATIENT POPULATION

- **MS-DRG 469**
  Major joint replacement or reattachment of lower extremity with major complications or comorbidities

- **MS-470**
  Major joint replacement or reattachment of lower extremity without major complications or comorbidities

- Ends 90 days post-discharge in order to cover the complete period of recovery for beneficiaries
EARLY REPORTING ON CCJR IMPACT

- We know the impetus for the CCJR under the CMS BPCI is the wide disparity of reimbursement for total joint arthroplasty
- Lowest - $16,500
- Highest - $33,000
- Not necessarily correlating with rural areas and urban areas being more or less expensive

EARLY REPORTING ON CCJR IMPACT


CMS Bundled Payments for Care Improvement (BPCI) Initiative Models 2-4:
Year 1 Evaluation & Monitoring Annual Report

Prepared for:
CMS
Early Reporting on CCJR Impact

• For knee replacement procedures, the top 10% of high-performing hospitals posted a 6.4% adverse-outcome rate compared to a 19.3% adverse-outcome rate at the bottom 10% of low-performing hospitals.

MODELS OF CARE

"Rapid Recovery"

"Fast Track"

"Enhanced Recovery"
Total Joint Registries currently in place focused on patient demographics, implant types, surgical interventions:

- **American Joint Replacement Registry**
- **Mayo Clinic Total Joint Registry**
- **Australian Ortho Association Nat’l Joint Replacement Registry**
- **Kaiser Permanente Total Joint Registry**
- **HealthEast Joint Replacement Registry**

In the future, our profession may be more accountable to rehabilitation outcomes
PHYSICAL THERAPY OUTCOMES REGISTRY

About the Physical Therapy Outcomes Registry

Why APTA?

APTA is committed to promoting physical therapists’ delivery of high-quality physical therapy and has created the Physical Therapy Outcomes Registry in support of this objective. Numerous health care associations have taken lead roles in developing outcomes registries, and APTA is no exception. Looking forward, APTA hopes to collaborate with other clinical registries to examine data across the spectrum of health care delivery systems.

Last Updated: 10/14/2016
Contact: registry@apta.org
CORE DATA ELEMENTS – LEVEL I

Patient
- Name (Last, First)
- Date of birth
- Social Security Number
- Diagnosis (ICD-9/10)
- Gender
- Ethnicity

Hospital
- Name
- National Provider Identifier (NPI)
- Address

Surgeon
- Name
- National Provider Identifier (NPI)

Procedure
- Type (ICD-9/10)
- Date of surgery
- Laterality
- Implants

Credit: www.ajrr.net
CORE DATA ELEMENTS– LEVEL II

Patient comorbidities (ICD-9/10)
• General comorbidities
• Addictions and other mental health comorbidities
• Cardiac-related comorbidities
• Circulatory/Vascular comorbidities
• Charlson and Elixhauser comorbidity indices

Length of stay
Body Mass Index
American Society of Anesthesiologists (ASA) classification
CJR risk variables
Operative and post-operative complications

Credit: www.ajrr.net
CORE DATA ELEMENTS—LEVEL III

- Harris Hip Score
- Hip disability and Osteoarthritis Outcome Score (HOOS)
- Hip dysfunction and Osteoarthritis Outcome Score for Joint Replacement (HOOS, JR.) *
- Knee injury and Osteoarthritis Outcome Score (KOOS)
- Knee injury and Osteoarthritis Outcome Score for Joint Replacement (KOOS, JR.) *
- Knee Society Knee Scoring System
- Medical Outcomes Study 36-Item Short Form Health Survey (SF-36)
- Oxford Hip and Knee Scores
- Patient-Reported Outcomes Measurement Information System (PROMIS) 10-item Global Health *
- Veterans Rand 12-Item Health Survey (VR-12) *
- Western Ontario and McMaster Universities Arthritis Index (WOMAC)

Credit: www.ajrr.net
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* Recommended

Credit: www.ajrr.net
PERFORMANCE INDICATORS

**PRE-OPERATIVE KEY PERFORMANCE INDICATORS**
- Wait time 1
- Surgical yield
- Patient satisfaction
- Patient self-efficacy
- Compliance with pre-operative care Toolkit recommendations

**SURGICAL KEY PERFORMANCE INDICATORS**
- Wait Time 2
- Acute length of stay
- Sub-acute / Step down unit length of stay
- Intra-operative adverse events
- Acute-care adverse events
- Total operating room time
- Operating turnover time
- Compliance with surgical component of Toolkit

**POST-OPERATIVE KEY PERFORMANCE INDICATORS**
- Patient outcomes
- Adverse events < 30 days post-surgery
- Compliance with post-operative component of Toolkit
- Patient satisfaction

*Note: Key performance indicators marked in bold font are considered necessary for evaluation of the hip and knee replacement surgical continuum.*
OUR FOCUS


- Recommended exercise modalities
  - muscle strengthening exercises (96%)
  - functional exercises (99%)
- Continuous passive motion, which was neither recommended nor advised against
- Electrical muscle stimulation, which was not recommended, were provided by 1%.
- no formulated recommendations
  - patient education (99%)
  - gait training (95%)
  - active range of motion (ROM) exercises (93%)
  - balance exercises (86%)
  - passive ROM exercises (58%)
  - aerobic exercises (50%)
  - massage (18%)
  - cold therapy (11%).
RANGE OF MOTION

While range of motion may be limited as an outcome measure of physiotherapy, the small to moderate standardised effect size obtained for function, which favours the intervention, is considered clinically important.

FUNCTIONAL RECOVERY VS. TASK

Enhanced recovery, good functional outcomes, and short hospital stays following THA and TKA can be achieved through clinical pathways and protocols with multimodal interventions.

ENHANCED RECOVERY

1. Sixteen predefined enhanced recovery after surgery items for hip or knee arthroplasty

- Nurse coordinator counselling in the orthopaedic or preadmission clinic
- Preadmission review by a physiotherapist and/or dietitian
- Minimal fasting preoperatively, defined as clear oral fluids up to 2 hours before surgery
- Preoperative oral carbohydrate loading
- No sedative premedication (benzodiazepines, opioids or neuroleptics)
- Pre-emptive analgesia with paracetamol and gabapentinoids according to protocols
- Spinal anaesthesia (not epidural)
- Local anaesthesia technique (surgeon-delivered local infiltration of analgesia or anaesthetic femoral nerve block)
- Minimal (≤10 mg) intravenous morphine intraoperatively
- Intraoperative avoidance of excessive intravenous fluids (knee, >1L; hip, >2L; both: subtracting blood loss)
- Active intraoperative warming (forced air warming and/or warmed intravenous fluids)
- Antiemetic prophylaxis
- Multimodal oral analgesia for ≥3 days postoperatively, to include a non-steroidal anti-inflammatory drug or cyclooxygenase-2 inhibitor
- Early postoperative (recovery room) oral carbohydrate supplementation
- Mobilisation within 24 hours
- Early hospital discharge (≤5 days)

RANGE OF MOTION

• In the short term, physiotherapy exercise interventions with exercises based on functional activities may be more effective after total knee arthroplasty than traditional exercise programmes, which concentrate on isometric muscle exercises and exercises to increase range of motion in the joint.

OUTCOMES – ACUTE CARE
OUTCOMES – ACUTE CARE

www.ihi.org
www.premierinc.com

Integrated Care Pathway for Total Joint Arthroplasty
OUTCOMES – ACUTE CARE

Measurement Considerations

Key process measures to monitor:
- Balance and fall risk assessment conducted
- Transfer to higher level of care acuity
- SCIP measure: Prophylactic antibiotic ended within 24 hours of surgery
- VTE prophylaxis administration measures
- Adherence to EBC guidelines (e.g., Foley catheter protocol, Euglycemia protocol; Delirium protocol, etc.)
- Length of stay
- Discharge disposition (and services requested)
- Elapsed time between patient arrival and physical therapy evaluation and mobilization
- Delay in care process, and where it occurred (measure elapsed time and patient wait time for key care processes)

Consider these patient-centered outcome metrics:
- Patient experience of care (including pain management)
- Shared decision making: Informed of care options, preferences documented, perceived involvement in care decisions (patient and family/caregiver)
- Level of pain, nausea, and vomiting
- TKA range of motion (extension/flexion – daily)
- Day of surgery activity (e.g., walked, stood at bedside, sat on edge of bed, no activity)
- Distance patient is able to walk (daily)
- Time to PT milestones (e.g., standing, walking, stairs)
- Adverse events (AEs): Post-operative physiologic and metabolic derangement, post-operative hemorrhage or hematoma rate, pneumonia/respiratory infection rate, UTI/urinary retention rate, inpatient mortality rate, delirium rate, surgical site infection rate
- Support the patient used when discharged to home (e.g., walker, cane, none)
- Readmissions within 30 days
OUTCOMES – ACUTE CARE

- American Knee Society,
- Western Ontario McMaster University Osteoarthritis Index scales, WOMAC
- Short Form–36 scores,
- SCT, stair climbing test;
- TUG, timed up-and-go test
Total Joint Arthroplasty and Outcome Measures (TJAOM) Toolkit

- Listed at [www.physio-pedia.com](http://www.physio-pedia.com)
- Developed by a Task Force led by Dr. Marie Westby
- Advocating the patient reported outcomes and functional tests recommended for use throughout the TKA continuum of care
Total Joint Arthroplasty and Outcome Measures (TJAOM) Toolkit

Graphic credit: http://www.physio-pedia.com/Total_Joint_Arthroplasty_and_Outcome_Measures_(TJAOM)_Toolkit
INTEGRATION
ELECTRONIC MEDICAL RECORD (EMR)

ELECTRONIC MEDICAL RECORD (EMR)

EPIC (Verona, WI)

• Problem list for all programs
  – Meeting the increased volume of patients
  – Providing quality care
  – Maximizing communication
ELECTRONIC MEDICAL RECORD (EMR)

EPIC (Verona, WI)

- This becomes an opportunity to streamline procedures and create efficiency
- Creates the opportunity to modify your build with your analysts to capture data for comparison reports later
- Session today – EPIC Consortium
ELECTRONIC MEDICAL RECORD (EMR)
PERFORMANCE INDICATORS

• A total of 4 KPIs were recommended for the Post-operative component of the Toolkit, of which 2 are considered necessary (indicated in bold). These include:

• Patient outcomes
• Adverse Events (AEs) < 30 days post-surgery
• Compliance with Post Surgical Component of the Toolkit
• Patient Satisfaction
**ELECTRONIC MEDICAL RECORD (EMR)**

G-Codes

<table>
<thead>
<tr>
<th>Date G Code Filed</th>
<th>Functional Assessment Tool Used</th>
<th>Score</th>
<th>Functional Limitation</th>
<th>Mobility: Walking and Moving Around Current</th>
<th>Mobility: Walking and Moving Around Goal</th>
<th>Mobility: Walking and Moving Around</th>
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Admission: 06/06/17
ELECTRONIC MEDICAL RECORD (EMR)
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ELECTRONIC MEDICAL RECORD (EMR)

PROMIS scores

Graphic credit: http://www.physio-pedia.com/Total_Joint_Arthroplasty_and_Outcome_Measures_(TJAOM)_Toolkit
ELECTRONIC MEDICAL RECORD (EMR)

EPIC Consortium Meeting
Date: Thursday, February 16, 2017
Time: 10:00 AM - 11:00 AM
Location: Hilton Palacio del Rio
Room: La Corona

Maximizing the Acute Care EMR: Best Practices, Tips and Discussion
Date: Friday, February 17, 2017
Time: 11:00 AM - 1:00 PM
Room: Grand Hyatt, Lone Star Salon F
PATIENT VOLUME

• Creating order sets to minimize variability decreases errors
  – Medications
  – Therapy orders
  – Pain management
• Modifying documentation for all disciplines
SUCCESS – CURRENT PRACTICE
“Simple can be harder than complex: You have to work hard to get your thinking clean to make it simple. But it’s worth it in the end because once you get there, you can move mountains.”
A COMMUNITY HOSPITAL TALE

Our location in the San Francisco Bay Area:

Rhymes with “Manford” and University of California “Pan Francisco”
A COMMUNITY HOSPITAL TALE

Our location in the San Francisco Bay Area:

Rhymes with “Manford” and University of California “Pan Francisco”
INSTITUTE FOR JOINT RESTORATION AND RESEARCH

- Program started in 1998
- Prior to its inception, there were **167 total joint surgeries** performed per year at Washington Hospital
- As of December, 2016, **over 1600** total joint surgeries were performed
Mission Statement:
To provide state-of-the-art joint replacement care in a highly personal and compassionate manner.

• Secondary impact:
  – Improve patient outcomes and satisfaction
  – Increase patient volume
  – Focus and specialize
8 surgeons; 3 perform 93% of the TJA cases

All patients follow a Rapid Recovery protocol, however we have paths for patients considering Home, SNF or undetermined

Patients outside of the IJRR program receive all education materials and class however the MDs are not as proactive about home DC or LOS
• We set the expectations and teach accountability
• When patients fall short, we still maintain the same expectations but adjust the speed of achievement
• We know certain patients will not be “rabbits”
• It’s great to be a “turtle”!
EXERCISE


- Participants in the TKA group could fully load their operated leg, but they could not generate enough knee angular velocity during rising compared with the control group. Emphasizes the importance of closed kinetic chain exercises.
IJR REHABILITATION STAFFING

• Patient volume
  – 4-5 days per week of surgery
  – 35-40 patients per week
  – 20 primary patient rooms
  – 60-100% of volume discharge per day
IJR REHABILITATION STAFFING

• Ratios / Schedule
  – 2 full time Physical Therapists daily
  – 1 per diem Physical Therapy Assistant (3/5 or more)
  – 2+ Physical Therapists for 4 to 5 days of surgery
  – 1 PT Aide per 4 therapists
  – We work PM shifts to accommodate the later cases that have “day of surgery” PT evaluations
  – Occupational Therapists handle 2-3 patients each (not unit based)
Day of Surgery PT evaluations
   – PM staffing is 12-2:30pm start, per coordination with the surgery schedule

Consistent BID treatment
   – Eval Complexities and treatment
   – Treatment

Occupational Therapy order set
   – All patients with THA or B TKA
   – ≥ 80 years old
   – Neuro involvement (current or past)
   – Walks with assistive device
   – Patients with weight bearing restrictions
   – Lives alone (case by case)
   – Planning to go to Skilled Nursing post discharge
REHABILITATION STAFFING

- 0-90 degrees by hospital DC
- 0-110+ degrees by 2 weeks (first MD post op visit)
- 0-120+ degrees by second MD post op visit
- Transition on assistive device as patient becomes more steady
- Cover transfers beyond traditional (car, outdoors, floor, uneven walking surfaces)
- If something conflicts with what you think should occur, discuss as a team to establish the "clinical picture"
RANGE OF MOTION GOALS
STATISTICS

• Group: patients with primary total knee arthroplasty for Calendar Year ending December 2016:
• Based on our in-house registry database, since 1998: Filemaker Pro
STATISTICS

• **Time frame examined** – March 2014 to September 2016

• **Population sample:** Knee replacement (excl. bilateral patients): 1514

• **Total number of unique patients with unilateral TKA:** 891
  
  • Statistics analyses done using chi-squared test, fisher’s exact tests, t-tests, logistic regression and multiple regression models
PATIENT CHARACTERISTICS

Total Knee Arthroplasty Population

• **Average Age:** 71.9 +/- 7.5 (64.4 to 79.4)
• **Sex:** 57% Female (n=507); 43% Male (n=384)
• **Average BMI:** 28.3 +/- 4.6 (23.7 to 32.9)
CLINICAL CHARACTERISTICS

- **Pre-Operative Education:** 26% did not attend; 17% attended previously; 58% attended (Total - 75% pre-educated)
- **Flexion 90 and Over Prior to Discharge:** 88% achieved flexion 90 and over; 12% did not
- **Average PT visits per Day:** 2.3 +/- 0.75 days
- **Last Ambulating Distance Prior to Discharge (feet):** 76.7 +/- 94.7 (15% walked 200ft and over)
- **Frequency of Group Exercise:** (average) 2 +/- 1 times during inpatient stay (95% of patients received group exercise)
LENGTH OF STAY

• **Average Length of Stay:** 1.89 +/- 0.73 days

• **Discharge Disposition:**
  94% went home w/ or w/o home health; 5.7% SNF; 0.7% rehab facility

• **Knee Society Score at 3 months**
  - available for 65% of patients n=575 so analysis was limited
  - 97 +/- 7 (94% of patients scored between 80-100, i.e.- excellent score)
LENGTH OF STAY

• Not significantly associated with LOS
  – Age,
  – Sex,
  – BMI,
  – Pre-operative education,
  – Group exercise,
  – Ambulation distance at discharge
LENGTH OF STAY

• Question that is raised
  – what is the ideal range of motion for patients at hospital discharge?
LENGTH OF STAY

• Question that is raised: What is the ideal range of motion for patients at hospital discharge?
• Nothing consistent listed in the literature
Functional Range of Motion

- Kolber and Brueilly (2006) reported normal functional range of motion for patients activities of daily living

<table>
<thead>
<tr>
<th>Activity</th>
<th>ROM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standing</td>
<td>0° extension</td>
</tr>
<tr>
<td>Up Stairs - Flexed leg</td>
<td>86-107° flexion</td>
</tr>
<tr>
<td>Down Stairs - Lead leg</td>
<td>0° extension</td>
</tr>
<tr>
<td>Tying shoe</td>
<td>106° flexion</td>
</tr>
<tr>
<td>Squatting</td>
<td>117° flexion</td>
</tr>
<tr>
<td>Bathtub use</td>
<td>135° flexion</td>
</tr>
</tbody>
</table>

Kolber MJ and Brueilly K. Arthrofibrosis following total knee arthroplasty: considerations for the acute care physical therapist. Acute Care Perspectives. 2006; Winter: 11-16.
LENGTH OF STAY

• Flexion 90 and over:
  – 1.8 days (+/- 0.7); Under 90 degrees: 2.3 days (+/- 0.8);
  – p=<0.0001 - significant

• Patients with three or more PT visits per day:
  – 1.0 day +/-0.22 vs. <3 PT visits per day: 1.98 +/- 0.7 days;
  – p<0.0001 - significant
DISCHARGE DISPOSITION

• What is the impact of discharge to home versus discharge to extended care?
DISCHARGE DISPOSITION

- Ambulation Distance: Patients who went home/home health had on average 24.3 feet greater ambulation distance than SNF/Rehab patients (p=0.03)
  - Home/Home Health an average of 78.5 feet at discharge (+/- 95)
  - SNF/Rehab: 54.2 feet (+/- 88) on average

- Patients with three or more PT visits per day: 100% went Home/Home Health; <3 PT visits per day: 92.9% went Home/Home Health (p=0.018)

- No studies on ambulation distance in acute care
OUTCOMES

• Knee Society Score is a scale 0-100
• Age was the only factor significantly associated with a KSS of excellent (vs good, fair or poor)
  – Patients who scored an Excellent KSS score at 3 months (i.e. 80-100) were slightly younger than patients who scored a Good/Fair or Poor score (p=0.009)
    • Excellent KSS: 71.8 +/- 7.4
    • Good/Poor KSS: 72.3 +/- 7.9
• Non-significant p value
MEDICARE-SPECIFIC POPULATION

Limiting to Medicare Patients and examining whether meeting/surpassing mobility goal before discharge was associated with positive outcomes (N=748 unique medicare patients)

• 647 met/surpassed goal (86.5% of patients)
• 101 did not (13.5% of patients)
• Large impact on the Medicare population
OUTCOMES – ACUTE CARE


• Fast-track THA and TKA with an LOS of median 3 days and discharge to home are feasible in most patients ≥85 years.
MOBILITY GOALS

• Independent of PT visits per day and flexion of 90 and over at discharge, patients who met/surpassed their mobility goal had significantly shorter length of stay compared to patients who did not (p<0.0001)
  – Patients Who Met Goal: 1.5 +/- 0.9 1.8 +/- 0.7
  – Patients Who Did Not Meet Goal: 1.8 +/- 0.7

• Meeting/surpassing mobility goal has no effect on KSS at 3 months
MOBILITY GOALS

• Independent of PT visits per day and ambulation distance at discharge, patients who met/surpassed their mobility goal were significantly more likely to go home with or without home health (p<0.0001)
  – Patients Who Met Goal: 96.5% went home/home health
  – Patients Who Did Not Meet Goal: 69% went home/home health
LIMITATIONS

• Because the data analysis is retrospective nature, we know we cannot prove causality
  – we have shown significant associations, but predictor variables (demographics/PT interventions) do not predict or cause an outcome.

• Due to limited data availability:
  – No adjustments made for patient functionality before surgery
  – No adjustments made for comorbidities
Group exercise classes (‘Joint Camp’)
- Started in the 1990’s [ first article – Abrahams 1999)
- Company called TeleVisual Communications (TVC) and Dr. John Barrett (Florida)
- Marshall Steele began the Joint Camp at Anne Arundel in 1996

- By grouping like diagnoses, the patients have support
- Class ratio
  - 5:1 – first post op class
  - 6:1 – beyond first post op class
INDIVIDUALIZED AND GROUP TREATMENT
INDIVIDUALIZED AND GROUP TREATMENT
INDIVIDUALIZED AND GROUP TREATMENT
INDIVIDUALIZED AND GROUP TREATMENT
INDIVIDUALIZED AND GROUP TREATMENT
PROFESSIONAL RELATIONSHIPS

Graphic: http://www.readingeagle.com/money/article/health-cares-home-health-agency-stays-flexible

Graphic: http://www.wisegeek.com/what-is-outpatient-physical-therapy.html
COMMUNITY PARTNERSHIPS

• Education of community partners on the protocols and expectations that they are expected to follow HH companies
  – Outpatient clinics
  – Skilled Nursing Facilities
• Request for outcomes information in return to know how patients are doing
  – LOS
  – Complications
  – Readmissions
COMMUNITY PARTNERSHIPS

Comprehensive Care for Joint Replacement Model
•  [https://innovation.cms.gov/initiatives/cjr](https://innovation.cms.gov/initiatives/cjr)

Additional Information

- Final Rule®
- Final Rule Press Release
- Press Release
- Consumer Fact Sheet (PDF)
- Provider and Technical Fact Sheet (PDF)
- Frequently Asked Questions (PDF)
- Quality Supplement (PDF)
- MSA volume and inclusion criteria worksheet (XLS)
- MSAs by population and payments (XLS)
- Hospital List (XLS)
- SNF List for Quarter 1 2017 (PDF)
- SNF List for Quarter 1 2017 (XLS)
- SNF List for Quarter 1 2017 (CSV)
- Episode exclusions (XLS)
- PBPM exclusions (XLS)
- Average Regional Historical Episodes from Proposed Rule (XLS)
- ICD-9 and ICD-10 Hip Fracture Diagnosis Codes (XLS)
- CJR Final Rule Correction and Correcting Amendments®
- Beneficiary Notification Letters:
  - Hospitals (PDF) | Hospitals - Spanish (PDF)
  - Physicians (PDF) | Physicians - Spanish (PDF)
  - Post-acute care providers (PDF) | Post-acute care providers - Spanish (PDF)
  - Physician group practices (PDF) | Physician group practices - Spanish (PDF)
COMMUNITY PARTNERSHIPS

3-day stay waiver: started January 1, 2017 for the 67 metropolitan areas under CCJR
<table>
<thead>
<tr>
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<th>SNF NAME</th>
<th>ADDRESS</th>
<th>CITY</th>
<th>STATE</th>
<th>ZIP CODE</th>
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<td>MERIDIAN CARE MONTE VISTA</td>
<td>616 W RUSSELL PL</td>
<td>SAN ANTONIO</td>
<td>TX</td>
<td>78212</td>
<td>(210) 735-9233</td>
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<tr>
<td>455523</td>
<td>MORNINGSIDE MANOR</td>
<td>602 BABCOCK RD</td>
<td>SAN ANTONIO</td>
<td>TX</td>
<td>78201</td>
<td>(210) 731-1000</td>
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<tr>
<td>455652</td>
<td>SILVER CREEK MANOR</td>
<td>9014 TIMBER PATH</td>
<td>SAN ANTONIO</td>
<td>TX</td>
<td>78250</td>
<td>(210) 523-2455</td>
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<tr>
<td>455742</td>
<td>SAN ANTONIO RESIDENCE AND REHABILITATION CENTER</td>
<td>7703 BRIARDGE</td>
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<td>5100 JOHN D RYAN BLVD</td>
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<td>505 MADISON OAK DR</td>
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<td>4949 RAVENSWOOD DR</td>
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<td>(210) 545-4800</td>
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<td>5423 HAMILTON WOLFE RD</td>
<td>SAN ANTONIO</td>
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<td>78240</td>
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<td>SCC AT WESTOVER HILLS REHABILITATION AND HEALTHCAR</td>
<td>9922 STATE HWY. 151</td>
<td>SAN ANTONIO</td>
<td>TX</td>
<td>78251</td>
<td>(210) 546-2273</td>
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<td>222 BERTETTI DR</td>
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<td>78227</td>
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**COMMUNITY PARTNERSHIPS**

Ex. Skilled Nursing list for San Antonio TX

[https://innovation.cms.gov](https://innovation.cms.gov)
COMMUNITY PARTNERSHIPS

• The Acute Care patient → Home Health / Outpatient
• While surgical and pharmacological advances have decreased detrimental effects of surgery, they do not change one key factor:
COMMUNITY PARTNERSHIPS

• The Acute Care patient -> Home Health / Outpatient
• While surgical and pharmacological advances have decreased detrimental effects of surgery, they do not change one key factor:

HEALING TIME

• Regardless of how well they are doing, they heal at the same rate. Opt for quality care over quantity.
COMMUNITY PARTNERSHIPS

• Inservices for companies with increasing volume
• Patient or facility telephone follow-ups
  – MUA
  – Patient surveys
  – Complications
• Request for outcomes information in return to know how patients are doing
  – LOS
  – Complications
  – Readmissions
COMMUNITY PARTNERSHIPS
FUTURE RESEARCH
CLINICAL PRACTICE GUIDELINES – TKA

• “Best practice for rehabilitation following primary TKA in the early postoperative phase (≤7 days)”
• Our CPG group includes Diane Jette, Meri Goehring
• Finalizing manuscript for publication on guidelines to care and interventions under the Academy for Acute Care Physical Therapy
• Key finding is that the research either is not strong evidence or is not focused on specific rehabilitation protocols but rather individual techniques that are situationally beneficial
CLINICAL PRACTICE GUIDELINES – TKA

• Areas of current research
  – Cryotherapy
  – CPM
  – Fast track / Rapid Recovery / Enhanced Recovery
    • Case study
  – Exercise protocols
    • Inconsistent protocols
CLINICAL PRACTICE GUIDELINES – TKA

- Areas of future research
  - Acute Care practices
  - Best Interventions
    - Rehab Protocols
    - Outcomes
    - Validated Tools
  - Practice
    - Clinical practice
    - Interprofessional interactions
    - Occupational Therapy
CLINICAL PRACTICE GUIDELINES – TKA

• Utilize the evaluation tools that your study will be judged by to create solid and reliable questions to research (reverse engineering)
  – Quality
  – Replication
  – Applicability to clinical practice
TOTAL KNEE DATA COLLECTION TOOL

- Gender (M/F)
- Age (yrs)
- Type:
  Primary,
  Revision or Uni
- Immediate post-surgical pain control method (Epidural, Femoral Block, Continuous Regional Drip following Block, PCA, Oral)
- Knee Flexion at PT evaluation
- Knee Extension at PT evaluation
- Knee Flexion at hospital discharge
- Knee Extension at hospital discharge
- Longest Distance ambulated prior to hospital discharge
- Equipment used at DC (FWW, Crutches, SPC, 4WW, etc.)
- CPM utilized? (Yes/No)
- Any record of fall or near fall during any PT treatments? (Yes/No)
- <3 Stairs performed before DC?
- Standardized assessments and score (50 ft. walk, repeated sit-to-stand, Timed Up & Go, etc.)
- Discharge Disposition (Home with HH, Home with Outpt. PT, Sub-acute, Acute Rehab, SNF)
- Assistive Device patient DC’d home on? (FWW, 4WW, PUW, Axil. Cr., Forearm Cr., SPC, Other)
- DVT or PE found before DC? (Y or N)
- Hospital Length of Stay (days incl. DOS)

Available through the TJA SIG Listserve
OUR FOCUS

- Advanced Certification Disease Specific Care for Total Hip and Total Knee Arthroplasty
- American Joint Replacement Registry
- Adding a third primary Orthopedic Surgeon
- Continue to train our current Therapists to meet the volume increases

• The vast majority reported the use of the recommended exercise modalities (muscle strengthening exercises (96%), and functional exercises (99%). Continuous passive motion, which was neither recommended nor advised against, and electrical muscle stimulation, which was not recommended, were provided by 1%. Reported treatment modalities for which there were no formulated recommendations included patient education (99%), gait training (95%), active range of motion (ROM) exercises (93%), balance exercises (86%), passive ROM exercises (58%), aerobic exercises (50%), massage (18%) and cold therapy (11%).
THE FUTURE IS OUTCOMES

• CCJR will challenge us all to improve clinical practice. Rehab clinicians must demand a seat at the table and shape the recovery course.

• Reimbursement will be outcome-based so plan your programs accordingly
Total Joint Therapists Listserve

- **totaljointtherapists@yahoogroups.com**
- **Academy of Acute Care Physical Therapy (open to all)**
- **Members:** 760
- **Category:** Health Care
- **Founded:** Feb 20, 2008
- **Language:** English
Total_Joint_Replacement Listserve

- total_joint_replacement-subscribe@yahoogroups.com
- Open to patients pre- and post- surgery with questions regarding joint replacement
- Members : “2441
- Category : “Health Care
- Founded : “Aug 24, 2002
- Language : “English
Total Joint Arthroplasty Special Interest Group

Acute Care TJR SIG Meeting

• **Section:** Academy of Acute Care PT
• **Date:** Thursday, February 16, 2017
• **Time:** 10:00 AM - 11:00 AM
• **Location:** Grand Hyatt San Antonio
• **Room:** Crockett A
THANK YOU / QUESTIONS
References


References


References


References


References


Starks I, Wainwright TW, Lewis J, Lloyd J, Middleton RG. Older patients have the most to gain from orthopaedic enhanced recovery programmes. Age Ageing. 2014;43(5):642-8.
References


