OVERVIEW

The aging of the U.S. population has led to a significant increase in the demand for joint replacements. The CDC reports that 51.8 million adults are diagnosed with arthritis in the U.S. Total knee or hip arthroplasty (also called joint replacement) is indicated for relief of significant disabling pain, stiffness and muscle weakness caused by severe arthritis. Hip replacements are often performed following hip fracture. According to CDC FastStats, 719,000 total knee replacements and 332,000 hip replacements were performed in US hospitals in 2010. Costs of providing this care have skyrocketed and are a national and community concern. In 2015 the Centers for Medicare and Medicaid Services (CMS), announced the Comprehensive Care for Joint Replacement Program as a strategy to improve outcomes and reduce costs of joint replacements.

WHY HIP AND KNEE REPLACEMENT BEST PRACTICES FOR HOME HEALTH?

Home health agencies frequently care for patients after total hip replacement (THR) or Total Knee Replacement (TKR) surgery. As more facilities adopt Fast Track joint replacement programs, home health agencies have the opportunity to demonstrate their value to providers and patients by adopting practices that result in good outcomes combined with high patient satisfaction.

1 This module is based on pathways developed by the Visiting Nurse Association of New England (VNANE). VNAA expresses appreciation to VNANE for use of this material and to VNAA’s Expert Work Group, for review and expansion of the pathway.
• The demand for total joint replacement is steadily increasing. There was a 101% increase in yearly hospitalizations for hip and knee replacements between the years 1997-2007. (Pereira, 2015)
• The average hospital length of stay after joint replacement has decreased from several weeks to between three to six days (Gulotta, 2011), and is expected to continue that decrease. Patients are seen at home much earlier in their recovery.
• “Fast track” programs are being implemented in many hospitals to reduce hospital stays after joint replacement and return patients home rather than a post-acute care facility. (Kehlet, 2013, Husted, 2012)
• Patient satisfaction is high in fast-track hip and knee replacement programs, while LOS, ED use, reported pain and use of pain medication has decreased (Specht 2015, Raphael 2011). Medicare is strongly encouraging providers to improve efficiency of joint replacement procedures, and to improve outcomes. By bundling payment for joint procedures, the CMS CCJR program is expected to drive demand for efficient, effective home care services after joint replacement.

Increase in Fast Track Programs – Fast Track programs all designed to reduce hospital stays to around two days in a safe and effective manner (Raphael 2011). Many home health agencies are reporting an increase in same-day discharges as well as two day fast track discharges. Candidates for fast track surgery are pre-selected. They are typically under age 70 and/or have few serious co-morbidities. Ambulation with physical therapy begins typically within six hours of surgery. Fast track patients are ambulated two additional times on the day of surgery. Patients are provided physical therapy twice daily until discharge. Post-operative pain is managed for inpatients via patient-controlled analgesia (PCA). PCAs are typically discontinued on the morning of postoperative day one if the patient’s pain visual analog scale pain score is 2 or less. Patients are discharged on oral pain medications. (Gulotta, 2011).

Value of Fast Track and Discharge to Home Health: Medicare has rolled out a new program called Comprehensive Care for Joint Replacement that is likely to increase use of fast track programs and increase the number of patients discharged to home rather than to a facility. This can be good for patients because of decreased risk of infection and lower costs. Home health agencies can add value for hospital and physician partners and patients by implementing evidence-based, streamlined programs to prevent complications and promote healing and increased mobility. See VNAA’s Healthcare Transformation e-Toolkit for information on payment models and implementation strategies for value based purchasing.

Contact us if you have questions or would like a customized presentation! Liza Greenberg, RN, MPH, VNAA Interim VP of Quality; lgreenberg@vnaa.org
Fast track programs combine evidence-based clinical care with systematic organizational approaches (Husted 2012). To implement hip and knee replacement fast track programs, home health agencies will need protocols for efficiently and effectively meeting the needs of patients after discharge. Agencies will also need processes to assure referring physicians that the agency is prepared to manage hip and knee surgery patients and a measurement approach to ensure high quality outcomes.

**Elements of a Home Health Fast Track Program**
- 1. Pre-hospitalization assessment and initial plan
- 2. Post-surgery assessment and care plan
- 3. Post-acute clinical care at home, including therapy
- 4. Close physician / home care team communication and coordination
- 5. Patient and family engagement
- 6. Flexibility of plans to accommodate patient needs and wants
- 7. Collaboration between home care team and community supports
- 8. Coordinated transitions between levels of care
- 9. Continuous evaluation of patient experience, outcomes, and costs

**Program Design Considerations**

**Clinical Features**
- Implement evidence-based clinical pathways integrated with training, documentation, and performance evaluation
- Adopt evidence-based physical therapy and nursing visits. Factors impacting frequency include type of surgery; patient condition and co-morbidities; time since surgery; type of discharging facility; availability of support at home; post-surgical pain and other symptoms.
• Innovate physical therapy (PT) approach: consider PT only visits, joint replacement protocols, frequency of visits based on patient function status, and protocol for transition to outpatient PT
• Proactively manage pain. This includes planning for the transition from facility to home, coordinating transition to oral and then to non-narcotic medications, ensuring that the patient is prepared for pain management during PT, and educating the patient on non-pharmacologic pain management.
• Proactively prevent readmissions through pain management, infection prevention, patient education, emergency planning and proactive communication. For example Zone Tools can be used for patient education and to identify risk of re-hospitalization
• Develop protocols for medication management for joint replacement: medication reconciliation, anticoagulation; pain medication; bowel regimen
• Plan your safety program: focus on falls risk assessment and prevention; anticoagulation management; infection control

Administrative Features
• Establish and communicate joint replacement program goals: For patients: increase patient mobility, improve strength and balance, and prevent complications. For payers and providers: prevent readmissions and ED use, manage costs, deliver good outcomes and high patient satisfaction
• Ensure patient access to home care after inpatient discharge: make available evening and weekend visits and extended hours for start of care
• Adopt tools to assist staff with assessments and patients with self-management
• Align your electronic medical record program to prompt for quality indicators
• Define roles and accountabilities of home care professionals to ensure comprehensive care, conduct required assessments, and submit essential documentation.
  o Nursing
  o Physical Therapy
  o Occupational Therapy
  o Aides
• Develop referral pathways for social services, mental health, transportation
• Plan for coordinated handoffs to outpatient therapy
• For fast track and same day programs, coordinate with inpatient PT to ensure smooth handoff to home care
• For fast track and same day programs, coordinate with inpatient or community pharmacy to ensure patients have access to pain medications at discharge

Best Practice Tip: Have agency home care liaison meet with patients during pre-op teaching session at hospital or have physical therapy liaison meet regularly with
discharge planners. (Ensure that this practice meets Medicare and State regulatory criteria.)

Quality Strategy
- Measure program results and report to joint replacement partners
- Evaluate opportunities for improvement, including cost savings and improvements in patient experience
- When possible, use technology to manage workflow and to automate quality checks
- Train staff to ensure consistency and accountability across all types of caregivers
- Review data monthly at agency and individual level
- Telephone check in with patient within the first 2 weeks of care to ensure satisfaction

Marketing and Communications
- Establish a communication program about availability of joint replacement services at home:
  - Target messages to hospitals, physicians, and patients
  - Participate in pre-op teaching workshops hosted by hospital or physician
  - Conduct pre-discharge visits
  - Develop program information for physicians and patients
- Share your program cost and outcome results with hospital, ACO, managed care and physician partners

**VNANE Best Practice Tip for HH Fast Track Programs:**
1) Central referral and intake line:
2) dedicated customer relationship management team;
3) collaborative target population analysis, planning, and performance reviews;
4) customization of services as needed to meet customer goals;
5) incentives to align organizational efforts with customer business imperatives

**Intake**

**Before the Home Visit:** Obtain the following information as part of the intake process at least 24 hours before the start of care:
- Get H&P and Discharge summary
- Get information on the type of surgery, restrictions related to type of surgery, long-acting pain medications administered during surgery
- Determine if patient is under a fast track protocol
- Determine if patient may be a re-hospitalization or safety risk
- Discharge medication list including pain management
- Verbal orders for treatments, labs, wound care, etc.
- Notify direct care providers of known risks.

Intake often begins before discharge. Call or speak to the patient on day of discharge from the facility. Pre-visit questions may include:

- “Do you have written information on how to take care of yourself after the surgery?”
- “Who is helping you?”
- “Were you able to obtain medications you need?”
- “Have you needed pain medicine since you got home?”
- “Do you understand how to take your pain medicine?”
- “How are you getting to the bathroom (or other functional status question)”
- “Have you noticed any changes or problems with your incision or the bandage since you’ve been home?”
- “Do you feel safe being home?”
- “Are you having problems with any of your other health conditions?”

Responses to questions lead to a decision about making a same day visit. Responses should also be used to organize care before or during the first visit, for example arranging a family visit, bringing certain supplies, or assisting with DME arrangements.

**Best practice:** Use a pre-visit phone script to improve consistency but empower staff to collect information using a conversational approach to make the interview go more smoothly. Many agencies believe a nurse or PT should make the call in order to assess patient need for a same-day visit. A clinician can ask follow up questions that help to understand patient needs and functional status more comprehensively.

**For Fast Track or Same Day Discharges:**

- Try to meet with the patient prior to surgery. Some agencies participate in joint surgery classes offered by hospitals
- Coordinate with hospital PT staff to ensure PT visit on day of discharge
- Ensure that medications are in the home when patient arrives
- Know what teaching and tools have been provided to the patient
- Consider adding anxiety assessment to identify patient /caregiver capability to meet needs
Start of Care

Initial Start of Care Visit includes:

- Telephone call to confirm visit with the patient
- Start or complete OASIS and a comprehensive therapy assessment
- With the patient and caregivers, plan visit frequency and discuss plan of care
- **Conduct general assessment of risk for re-hospitalization** (See VNAA BLUEPRINT: Risk Assessment)
- **Conduct pain assessment.** Use standard tool and assess at every visit. See tools in this section.
- **Conduct home safety assessment.** (See VNAA BLUEPRINT: Falls Risk Assessment)
- **Conduct medication reconciliation** (See VNAA BLUEPRINT: Medication Reconciliation and VNAA BLUEPRINT: Medication Safety)
  - Assess medications specific to joint replacement: pain management and anticoagulation
- **Conduct depression assessment** (See VNAA BLUEPRINT: Depression Screening)
- Physician contact regarding orders and medication reconciliation.
- Initial self-management teaching: pain, bowel management, wound care, falls prevention, other safety teaching
- Assess equipment or home modification needs, including grab bars
- Initiate referrals as needed:
  - Refer to skilled nursing for medication teaching and INR blood draw if needed and RN required by state law
  - Refer to occupational therapy (OT) for assistance with ADL’s
  - Refer to MSW/psych RN if positive for anxiety or depression
  - Refer aide services for assistance with personal care
  - DME provider for any equipment required that is not in home (or obtain needed referrals).
- Provide agency name and contact information and assurance of 24 hour response to calls—teach back with information
- Verify that physician follow-up appointment is made (usually at 6 weeks)
- Leave patient education and zone tools for patient use
**Surgical complications** can be major or transient (Papayasiliou, 2012). Complications most commonly observed in the home health setting include thromboembolism or infection. Home health has an important role in preventing emergency visits and readmissions related to surgical complications as well as those related to exacerbation of chronic disease. Evidence suggests that readmissions can be positively impacted by reducing post-operative surgical complications (Keeney 2015) and carefully monitoring functional status (Shih 2015, Fisher 2015).

**Thromboembolism** – Venous thromboembolism (VTE) may manifest as a deep vein thrombosis (DVT) or as a life-threatening pulmonary embolism (PE). Predisposing factors include age older than 40, female sex, obesity, varicose veins, smoking, past history of DVT, diabetes and coronary artery disease.

- **VTE Prevention:** Current recommendation is for timely initiation of VTE preventive care postoperatively. Current prophylaxis methods include mechanical compression stocking or foot pumps (mechanical prophylaxis) as well as pharmaceutical agents such as low-dose warfarin, unfractionated heparin, low molecular weight heparin or aspirin (Autar 2011).

- **Anticoagulant therapy:** The American College of Chest Physicians (ACCP) 2012 guideline on anticoagulation therapy after orthopedic surgery addresses evidence based anticoagulation therapy:
  - ACCP clinical practice guidelines recommend antithrombotic prophylaxis following total hip arthroplasty or total knee arthroplasty
  - Low-molecular-weight heparin (Lovenox and other brand names) is the preferred method of prophylaxis; Recommended alternatives are fondaparinux (Arixtra); dabigatran (Pradaxa), apixaban (Eliquis), rivaroxaban (Xarelto)
  - Apixaban (Eliquis) or dabigatran (Pradaxa) are the recommended alternative for patients who decline injectable LMWH
  - Anticoagulant prophylaxis is recommended for a minimum of 10-14 days following surgery and preferably for 35 days following surgery
  - Patients discharged on warfarin (Coumadin) need a plan for INR; note that warfarin is not the preferred anticoagulant

- **Compression therapy:** Intermittent pneumatic compression device (IPCD) is recommended prior to discharge with or without anticoagulation therapy
  - Patients are frequently discharged with compression stockings or boots
  - Recommended use is 23 hours on and 1 hour off
Compression stockings are used until patient is fully ambulatory
Stockings can be handwashed and air dried.

- **VTE Assessment:** check legs for redness, swelling (DVT); evaluate shortness of breath (PE)
- **VTE Patient/Family Education:** educate on signs/symptoms of VTE, medications, importance of ambulating

**Infection and Skin Integrity:** higher rates of wound infections are associated with Rheumatoid arthritis, skin breakdown, prolonged wound drainage, previous knee surgery, obesity, steroid use, renal failure, DM, malignant disease. Infection around the prosthetic joint occur in approximately 1% of knee and hip joint replacements and are the leading cause of surgical revisions (Kapadia 2015, Lamagni 2014). Additionally, patients with limited mobility or cognitive impairments are at risk for pressure ulcers. Clinical interventions include prevention of infection at the surgical site and prevention of new or worsening pressure ulcers.

- **Infection Prevention:** There is no single standard of care for surgical wound dressings (Dumville 2014). Some patients may need surgical wound care while other patients may be discharged with sterile occlusive dressings, which are not changed for 10-14 days. Home health provides wound care or dressing changes as needed; otherwise patient teaching is key to prevention and early detection.
- **Infection Assessment:** check wound area for intact dressing; if assessable, evaluate redness, swelling, pain or drainage at wound site. Routine temperature check. Use a standard assessment tool such as the [Braden scale](#) for pressure ulcer risk assessment.
- **Infection Patient/Family Education:** signs and symptoms of infection, showering / bathing protocols with the dressing, daily temp monitoring and call agency if temperature is above established set point. Use a [Zone Tool](#) for patient education and self-management.

**Stiff knee after TKR:** Approximately 1-5% of patients experience ongoing stiff knee following surgery, defined as a flexion contracture of ≥15° and/or <75° of flexion. Risk factors for reduced range of motion (ROM) include younger age, post-traumatic arthritis, prior knee surgeries or pre-existing stiffness. Post-operatively stiffness can be caused by infection, inadequate pain management, or other pathology limiting knee motion. Patients with continued stiff knee after 2 months should be referred for further evaluation. (Husain 2011)

- **ROM Assessment:** range of motion and pain scales, edema assessment
- **ROM Prevention:** pain management, physical therapy
- **ROM Patient / Family Education:** pain management, exercise program, exercise program.
Rehabilitation services are an integral component of fast track joint replacement programs (Quack, 2015, den Hertog 2012) Physical therapy a core service in home-based joint replacement care. Some joint replacement cases are PT only, meaning that PT clinicians must document all clinical and functional limitations and ensure that improvements are documented. Although patient-related factors such as age, weight, and prior functional status impact the recommended rehabilitation prescription, there is expert consensus around many aspects of rehabilitation care (Westby 2014, Health Quality Ontario, 2005).

Start of Care: (In addition to start of care activities previously described)
- Determine physician prescription for weight bearing, joint precautions, or positioning
- Assess functional status and mobility
- Assess pain level, noting that pain management is essential to enable the patient to engage in PT activities

Goal Setting: Implement physical therapy plan with emphasis on:
- Walking, balance, stairs
- Fall prevention, safety
- Flexion, extension and range of motion to prevent stiff knee
- Patient-identified goals relating to function or pain

Therapy: Provide therapy interventions/treatments based on initial assessment including:
- Gait training on various surfaces
- Range of motion (ROM) and Strength
- Practice ADLs (sit, stand, toileting, bathing, stairs)
- Exercises for balance in different positions – supine, prone, sit, side, stand
- Site specific rehabilitation exercises

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<th>Hip Exercises*</th>
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<td>Glut Sets</td>
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<tr>
<td>Knee Extension (Long Arc Quad)</td>
<td>Straight leg raises</td>
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*Hip Exercises*
Occupational Therapy (OT)

- OT may be consulted for patient training and education on functional bathroom transfers with use of DME as needed
- OT can recommend equipment such as: reacher, sock aid, stocking aid, long handled shoe horn, dressing stick, hand held shower, grab bars, shower chair, raised toilet seat
- OT will provide teaching and training for ADL skills while maintaining joint precautions
- OT teaching and training on adaptive devices will allow for greater independence while following surgical precautions.
- OT will assess for Home Health Aide needs and develop a care plan.
- OT will educate, train and teach patient on positioning strategies for pain management.

Physical Therapy Teaching:

- Pain management, - emphasize the importance of medicating before PT and use of heat or cold therapy
- Exercises for the patient to do on his/her own with caregiver
- Correct crutch, walker or cane usage on flat surfaces and stairs
- Joint precautions (such as not crossing legs and standing techniques) and weight bearing limitations
- Recommended ROM limitations or goals for specific functional tasks
- Provide and review patient education and information (may be developed by the agency or are publicly available. See for example Mass General's Patient Rehabilitation materials.

PT Objective Tests and Measures

Objective tests and measures should be performed at initial evaluation to obtain baseline. These should be performed again for comparison at reassessment and discharge. The physician should receive PT evaluation and discharge summary and also be updated as appropriate and needed on the patient’s progress throughout the plan of care. (Clarkson, 2005)

- Assessing Body Structure and Function:
  - Strength testing- manual muscle testing, observation of function if unable to perform manual muscle testing
  - Goniometric measurement of ROM
• Normal Hip ROM: Flexion 0-120°; Extension 0-30°; Abduction 0-45°; Adduction 0-30°; IR 0-45°; ER 0-45°
  o Average hip ROM required for: Sitting in a standard height chair ~84°; Sit to stand from a chair typically requires at least 90° hip flexion but this varies based on chair height; Squatting to pick up an object from the floor 110-120° hip flexion; Tying a shoe with foot flat on floor ~120°; Ambulation 30° hip flexion and 10-20° hip extension; Stair ascent 67° hip flexion; Stair descent 36° hip flexion;
• Normal Knee ROM: Extension/Flexion 0-135°
  o Average knee flexion required for: Sitting 93°; Tying shoes 106°; Level ambulation 60°; Stair ascent 83-105° (varies based on stair dimensions/height); Stair descent 83-107° (varies based on stair dimensions/height); Squatting to pick up an object 117°

Assessing Activity:
- Balance
- Transfers
- Ambulation
- Stair negotiation

Ongoing Care and Self-Management Teaching

Patient and Caregiver Engagement: Engage patients and caregivers in planning and managing their own care plans with goal of providing smooth transitions, reducing anxiety, improving knowledge of progress and care expectations, confidence in ability to self-manage care for more rapid return to normal living.

- Make sure patient knows when to expect services. Case manager writes agency specific visit schedule for each discipline. Post on refrigerator or other central location
- Communicate - any changes in schedule should be communicated to patients in a timely manner
- Educate patient and caregiver on when to alert agency staff
- Plan for emergencies – make sure the patient and caregivers know how to contact Agency, PCP/orthopedist and 911.

Plan of Care: Determine number of contacts/week based on:
- Length of rehab stay prior to home care (if any)
- In home support
- Co-morbidities
• Surgical complications
• Patient ability to adhere to plan
• Fast track status
• Any physician specific protocols
• Accessibility to outpatient rehab

On-going care includes:
• Assess for pain at each visit using rating scale and transition to non-narcotic as soon as possible
• Take vital signs pre and post exercise.
• Assess for edema
• Check medication status: ask patient if on any new medications, changes in dosage, problems/issues experiencing. See VNAA BLUEPRINT
• Evaluate surgical wound: Remove staples or change dressing as ordered by physician.
• Monitor for surgical complications:
  ▪ Thromboembolism or DVT
  ▪ Infection
  ▪ Stiffness
• Physical therapy, occupational therapy, and other referrals as needed

Self-Management Teaching:
• Patient/caregiver teaching should include:
  • Signs and symptoms of surgical wound infection, VTE
    ▪ Pharmacologic pain management – narcotic and non-narcotic
    ▪ Non-pharmacological pain management including ice and positioning for comfort.
    ▪ Bed mobility
    ▪ Transfers (bed, toilet, chair, shower, care, floor)
    ▪ ADL/IADL skills
    ▪ Edema management
    ▪ Urgent and emergent response
• Utilize teach back method to verify learning
  • Patient and caregiver should be able to:
    ▪ Demonstrate ability to take medications correctly including pain, anticoagulants and bowel regimen
    ▪ Verbalize medication actions/ side effects to report/administration schedule
    ▪ Demonstrate mobility skills
    ▪ Verbalize plan for emergencies
• **Leave behind** patient education materials and tools

**Best Practice Tip:** Make a check in call after the first few visits with an open ended question such as “What else can we do for you?” This helps to manage the patient experience and identify any gaps in the agency’s performance.

**Transitional Planning:** Care transitional planning should include:
- Identify any follow up home care services needed
- Refer to outpatient rehab and coordinated handoff
- Hand off up to date medication list and care plan to next providers of care
- Discharge summary to physician if requested/required
- Patient able to describe the plan for follow up care including physician visit and rehabilitation

**TOOLS – See Hip and Knee Replacement Resources Page for Links**

A variety of assessment tools are available to guide rehabilitation priorities. Assessment tools cover a variety of functional areas, and are important both for evaluating improvement of OASIS functional status measures and joint replacement outcomes. Clinicians may also use tools to address mental status changes that could impact recovery, including cognitive impairments or depression. A baseline assessment is needed for any patient at risk of or with reported cognitive changes.

Key areas to be assessed after joint surgery include:
- Aerobic Capacity/Endurance
- Arousal/Attention/Cognition
- Balance/Balance Confidence
- Gait/Locomotion
- Mobility/ADL/IADL
- Strength

Tools recommended by VNAA’s Work Group Include:

**Physical function**
- Timed Up and Go (TUG)
- WOMAC
- Tinetti
- 30 second chair stand
- MAHC10
• 6MWT (for assessment of cardiopulmonary)

**Functional status**
- SLUMS
- Mini Mental Status Exam
- Montreal Cognitive Assessment

**Skin Integrity Assessment**
- Braden Scale for skin risk

**Pain Assessment**
- **The Faces Pain Scale-Revised or FPS-R**
- **Verbal Descriptor Scale** - This scale consists of six possible suggestions describing the intensity of pain, ranging from “no pain” to “worst possible pain”.
- **10 Point Scale** - The 10 point scale is a vertical or horizontal line numbered 0-10. 0 is labeled “no pain”, and 10 is labeled “worst possible pain.”
- **Wong-Baker FACES Pain Scale** (patient visual) - used for children or limited-English speakers
- **Brief Pain Inventory (BPI)** (verbal descriptor) - captures additional information on pain characteristics.
MEASUREMENT AND EVALUATION

Agencies will evaluate many aspects of care – including pain management, patient experience, functional status improvements and safety gaps as part of overall Home Health Quality Reporting Program. Agencies should consider monthly review of quality data and review of clinician-specific measures. Agencies with multiple branches should assess performance of each branch. These process and outcome measures can also be part of a Total Quality Assessment and Performance Improvement (QAPI) program.

Measures for Value-Based Purchasing

Value-based purchasing is becoming more prominent in home health. See VNAA's VBP e-Toolkit for information on how payers are linking reimbursement to outcomes and how agencies can prepare for the transformation. Home health outcomes will be carefully monitored by payers participating in the CMS Comprehensive Care for Joint Replacement pilot tests. Agencies should work closely with conveners (hospitals and groups) receiving bundled payments to ensure that measures and quality improvement activities align with goals of the value based purchasing initiative.

As Home Health is increasingly evaluated through Home Health Star Ratings, it is also imperative that agencies review all Home Health Compare and Star Rating measures for patients in the Hip and Knee Joint Replacement Program.

Best practice tip: Generate measurement reports weekly or at minimum, monthly to be reviewed by team members, including clinicians. Develop criteria for improvement directly related to Home Health Compare and Star Ratings.

Standard Measures Specific to Joint Care Outcomes

OASIS Outcome and Process measures:

- Frequency of pain interfering with activity or movement
- Improvement in Ambulation
- Improvement in Bed Transferring
• Improvement in Bathing
• Surgical wound improvement

Claims and Survey Measures:

• Incidence of major falls
• Emergency care needed (with or without hospital admission)
• Unplanned re-hospitalizations
• Provides care in a professional way (HHCAHPS)
• How well did the team communicate with patients (HHCAHPS)
• Did your team discuss medications, pain and home safety with you (HHCAHPS)

Would you recommend the agency to friends and family (HHCAHPS)

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<thead>
<tr>
<th>VNANE Best Practice Tip to Enhance Home Care Customer Experience / Satisfaction Measures</th>
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<tr>
<td>• Staff education and training about patient experience, reports and influencers of satisfaction</td>
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<td>• Weekly/monthly measurement reports: team/clinician measures reviewed with supervisors “critical for improvement”</td>
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<td>• Spotlight positive stories</td>
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<td>• Recognize the very low margin for error in home care</td>
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Based on Press Ganey’s “The Banner Story: Improving Home Care Patient Satisfaction to Stay Ahead in a Competitive Market”

Other Non-Standardized Measures

Self-Care and Functional Status

• Patient/caregiver are able to verbalize how and when to contact the agency after hours.
• Patient/caregiver can demonstrate/verbalize understanding of pain management.
• Patient demonstrates ability to take medications correctly.
• Patient able to verbalize medication actions/side effects to report/administration schedule
• Patient/caregiver can verbalize home safety precautions.
- Patient demonstrates progress towards goals.
- Patient/caregiver able to demonstrate self-care.

**Physical Therapy Measures**
- Baseline range of motion and discharge ROM
- Activity status

**Other Outcome Measures**
**New:** The NIH PROMIS tool is increasingly used to assess patient–reported health status and patient outcomes for physical, mental, and social well–being. CMS may test or adopt it as some future point. PROMIS instruments measure concepts such as pain, fatigue, physical function, depression, anxiety and social function.

**Best Practice Tip: Use Measures for Improvement!**
Measurement is about accountability and driving quality improvement. Review all Home Health Compare and Home Health Star Ratings Star Rating measures for patients in the Hip and Knee Joint Replacement Program. Generate measurement reports weekly or at minimum, monthly to be reviewed by team members, including clinicians. Develop criteria for improvement directly related to Home Health Compare and Star Ratings. Be sure to show your results to staff, payers, providers and patients!
TRAINING PROGRAMS

CMS Comprehensive Care for Joint Replacement
[VNAA webinar coming soon!]

VNAA Hip and Knee Joint Replacement Best Practices
[See powerpoint presentation linked to the Best Practice Website]

Medication Reconciliation [VNAA Blueprint training]
http://vnaablueprint.org/MedicationRecTraining.html

Falls Prevention [VNAA Blueprint training]

Hip and Knee Quality Strategy: Institute for Healthcare Improvement – Preparing for New Models of Joint Replacement Care (VNAA discount may be available to IHI sessions – contact VNAA)

**Best practice tip:** Spotlight patient and clinician-specific stories demonstrating effective practices and successful achievement of high performance
REFERENCES AND RESOURCES

The resources and links below were reviewed by the VNAA Best Practices Work Group. Most are available at no cost or are available for use. For copyrighted items, please review copyright restrictions. Please retain all logos and citations where authors/originators are listed on these resources. For questions or comments about these resources, contact us.

RESOURCES

Value Base Purchasing for Joint Replacement

- VNAA Healthcare Transformation e-Toolkit
- American Physical Therapy Association CCJR Resource Page
- Centers for Medicare and Medicaid Services Comprehensive Care for Joint Replacement

General Physical Therapy and Rehabilitation

- Hip Pain and Mobility Deficits – Hip Osteoarthritis: Clinical Practice Guidelines Linked to the International Classification of Functioning, Disability, and Health from the Orthopaedic Section of the American Physical Therapy Association
- Rehabilitation Measures Database
- Geriatric Examination Toolkit (includes many functional status tools)

Hip and Knee Replacement Physical Therapy: Patient Information

- Ohio State University: Exercises after Hip Replacement
- Massachusetts General Hospital: Physical Therapy Exercises after Knee Replacement
- Massachusetts General Hospital: Physical Therapy Exercises after Hip Replacement

Falls Prevention

- VNAA Blueprint for Excellence: Falls Prevention
- Preventing Falls Among Older Adults Centers for Disease Control and Prevention
Assessment Tools

NIH PROMIS - The Patient Reported Outcomes Measurement Information System (PROMIS) is a system of highly reliable, precise measures of patient–reported health and health outcomes status for physical, mental, and social well–being. PROMIS tools measure what patients are able to do and how they feel by asking questions. PROMIS’ measures can be used as primary or secondary endpoints in clinical studies of the effectiveness of treatment. PROMIS instruments measure concepts such as pain, fatigue, physical function, depression, anxiety and social function.

Hip and Knee Assessment
Tools recommended by the American Physical Therapy Association (APTA) are noted.

- **Timed Up & Go (TUG)** - recommended by APTA post TKR
- **Western Ontario and McMaster Universities Osteoarthritis Index** (WOMAC)
- **Tinetti Assessment tool** - for balance
- **Tinetti Performance Oriented Mobility Assessment (POMA)**
- **30-Second Chair Stand Test (30CST)**
- **Knee Injury and Osteoarthritis Outcome Score (KOOS)** - Recommended by APTA for higher functioning adults after TKR
- **MAHC 10 - Fall Risk Assessment Tool**
- **6-Minute Walk Test (6MWT)** - for assessment of cardiopulmonary status; measures aerobic capacity & gait. Recommended by APTA post TKR

Cognitive Assessment

- **St. Louis University Mental Status Exam (SLUMS)**
- **Mini Mental State Examination (MMSE)**
- **Montreal Cognitive Assessment**

Pain Assessment

- **The Faces Pain Scale-Revised or FPS-R** The Faces Pain Scale-Revised or FPS-R
- **Verbal Descriptor Scale** - This scale consists of six possible suggestions describing the intensity of pain, ranging from “no pain” to “worst possible pain”.
- **10 Point Scale** - The 10 point scale is a vertical or horizontal line numbered 0-10. 0 is labeled “no pain”, and 10 is labeled “worst possible pain.”
- **Wong-Baker FACES Pain Scale** (patient visual) - used for children or limited-English speakers
- **Brief Pain Inventory (BPI)** (verbal descriptor) - captures additional information on pain characteristics

**Skin Risk Assessment**
- **Braden Scale**

**Guidelines**
- **Updated Guidelines on Outpatient Anticoagulation** (2013)
- **International Congress for Joint Reconstruction: Evaluation and Management of the Stiff Knee**

**REFERENCES**

**Rehabilitation**


Complications


Fast Track Programs


