The Arthroplasty Plan

and the

OsteoArthritis Service Integration System

The Canadian Health System Comes of Age:
A framework for 21st century care
May 29, 2008



TAP: The Arthroplasty Plan

Background

- Wait time for hip and knee replacement range from 8.9 to 20.6 months
- Population demographics projected increase in arthroplasty cases over next 10 years
- Indications the patient is to have surgery within 6 months have better clinical outcomes
- Purpose of the Richmond Hip and Knee Joint Reconstruction Project
 - To implement and evaluate a high quality, high volume, low cost Hip and Knee Reconstruction model



TAP: Objectives

- Maximize utilization of resources and create efficiencies, including:
 - Reduce average waiting time to 4-6 months
 - Reduce average length of stay (ALOS) to 4 days hip reconstruction and 3 days - knee reconstruction
 - Improve OR efficiency by 20-25%
 - Evaluate patient outcomes
- Align/integrate with regional and provincial initiatives
- TAP Model (Toolkit)



TAP: Components of Model

- 650 cases/year
- Prioritization scoring
- Clinical Pathways for Hip & Knee Replacement
- Equipment, prosthesis & supply standardization
- Waitlist Management
- Optimize resource utilization
- Project Database
- Evaluation



TAP: Accomplishments

- Cases completed increased by 136%
- Decreased overall waitlist by 30%
- Decreased >24 weeks waitlist by 63%
- Achieved 28% OR efficiency
- ALOS 4.1 Days for Hips
- ALOS 3.1 Days for Knees
- TAP Model Toolkit (Knowledge Transfer)



Knee Replacement Surgeon A Goal Times Pt in Rm - 0745 hrs (1hr 50min per case) Pat in Room to Induction Room to Induction Complete (_ Positioning (_ Surgeon B Surgeon B assists Surgeon A Pt in Rm - 0845 hrs Setup to Pt in Room Anesthetist in Cut to Stitch (Anesth B checks with surgeon before inducing patient Complete (_ Complete (_ Surgeon B begins his case Positioning (____) Stitch to Pt Out Rm (_ Clean up (Surg A assists Surg B Pt in Rm - 0920 hrs Cut to Stitch (_ Anesth A checks with surgeon A before inducing patient Room to Inductio Pat in Room to Induction Complete (_ Stitch to Pt Out Rm (_ Surgeon A begins his case Clean up (_ Surg B assists Pt in Rm - 1035 hrs Setup to Pt in Room Anesth B checks with surgeon Cut to Stitch (_ Anesthetist in Pat in Room to Induction Room to Induction before inducing patient Complete (_ Surgeon B begins his case Positioning (Stitch to Pt Out Rm (Clean up (Surg A assists Surg B Pt in Rm - 1115 hrs Cut to Stitch (__ Anesth A checks with surgeon A before inducing patient Pat in Room to Induction Complete (Stitch to Pt Out Rm (Surgeon A begins his case Positioning (_ Surg B assists Pt in Rm - 1225 hrs Setup to Pt in Room Anesth B checks with surgeon Cut to Stitch (__ Anesthetist in before inducing patient Pat in Room to Induction Room to Induction Surgeon B begins his case Positioning (_____) Stitch to Pt Out Rm (Surg A assists Clean up (_ Surg B Pt in Rm - 1305 hrs Cut to Stitch (_ Anesth A checks with surgeon A Anesthetist in before inducing patient Pat in Room to Induction Complete (_ Stitch to Pt Out Rm (Surgeon A begins his case Surg B assists Surg A Pt in Rm - 1415 hrs Anesth B checks with surgeon Cut to Stitch (__ before inducing patient Pat in Room to Induction Room to Induction Complete (Complete (Surgeon B begins his case Positioning (____) Stitch to Pt Out Rm (_ Surg A assists Surg B Finished 1500 hrs Cut to Stitch (Stitch to Pt Out Rm (Clean up (Finished 1605 hrs

TAP: Efficiency in the OR

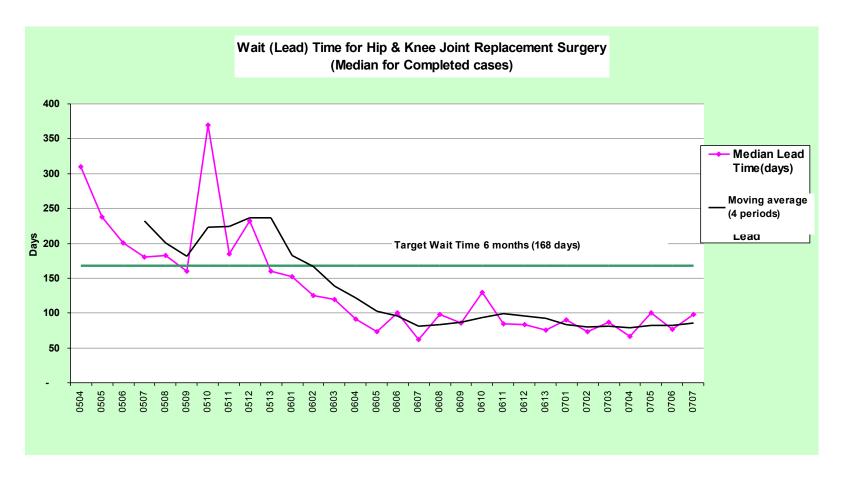
Process for running two Operating Rooms concurrently

Goal time is 1:50h per case

√44 minutes

425+%

TAP: Wait (Lead) Time for Hip & Knee Joint Replacement Surgery



TAP: Toolkit Highlights

- Budget template
- Team Process
- Process Map of care path
- Clinical Pathways
- Scheduling / Bed Mapping
- Standardization
- Waitlist Audit
- Eight Total Joint Day (Community Hospital)



TAP: Lessons

- Senior Leadership Support
- Surgeon Champion
- Dedicated Resource
- Collaborative Approach
 - Multidisciplinary involvement
 - Cross continuum
- Knowledge transfer
- Scope Creep Identified need for OASIS



OASIS: OsteoArthritis Service Integration System

- Arthritis: 2nd most costly disease category in Canada
- Estimated 3M Canadians with symptomatic OA
- 40-50% patients suffer intermittent pain, with 10% suffering extreme pain
- Increasing prevalence of OA associated with aging



OASIS: Closing Gaps in Care

- Fragmentation of current services limited coordination between care providers
- Lack of coordinated capacity to respond to increasing demands for services
- Waitlist and wait time pressures (consults and surgeries)
- Gaps in care for non-operative patients
- Lack of knowledge about resources and supports available



OASIS: Goals

- Limit development and progression of OA
- Slow onset of complications that can cause severe disability
- Reduce avoidable declines in health
- Reduce variations in care



OASIS Program

Target Populations

- Patients in early and advanced stages of osteoarthritis of the hip and knee:
 - Non-operative cases
 - Surgical candidates
 - Individuals seeking information on options



Source of Referrals

- primary care physicians
- orthopedic surgeons
- rheumatologists



Services



- Multi-disciplinary assessment of treatment and education needs
- Personalized action plans
- Listing of resources available in public and private sectors
- → Tools for self-management
- Coaching and group education
- Coordination of referrals (optional)

Benefits



- Enhanced relationship with Primary Care Physicians
- Improved access to services
- Skills in self-management
- Improved quality of life and health outcomes
- Collaborative partnerships
- Improved use of system resources and expertise
- Linkages with other Chronic Disease Initiatives

OASIS: Patient Journey

Client presents to Physician with hip or knee pain

Physician completes and submits referral documentation to OASIS

Client contacted and scheduled for assessment appointment

Physician assesses clients for OA and appropriateness for referral to OASIS

Clients in early stages of disease requiring "Information Only" are referred to OASIS website and inventory of services

- All Clients scheduled for Group Education
 Sessions delivered by OASIS teams or Education Partners
- Focus on selfmanagement tools

Core Services

NOILING

Clients requiring medical

Clients requiring medical management and/or "readiness for surgery" referred on by OASIS or Physician for physio, home support, weight mgmt., etc. OASIS multidisciplinary team assesses client needs:

- >Weight management
- >Pain management
- >Nutrition
- >Mobility / exercise
- >Home support
- >Aids to daily living
- >Social services
- Need for surgery

Client triaged into appropriate care stream

- > Candidate for surgery in next 6 mos.
- Client requiring medical management and other nonsurgical support

Preparation and communication of personalized action plans

- > Discussed with client
- > Copy to referring physician
- > Copy to surgeon (surgical candidates)

Surgical candidates referred on to Surgeon for surgery consultation

Client participates in OASIS classes for optimization for surgery

OASIS: Multiple Stakeholders

- Clients and caregivers
- Primary Care Physicians (PCPs)
- Allied health professionals
- Orthopedic surgeons
- Rheumatologists
- Community organizations
- Education partners



OASIS: Benefits

- Equitable access to services based on need rather than entry into referral queue
- Access to first available surgeon
- Up to date inventory of public and private sector services
- Standardized referral forms and assessment tool
- Personalized action plan for all clients
- Alignment with other CDM initiatives



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