

Joint Replacement Pathways Framework

Acknowledgment

The *Joint Replacement Pathways Framework* (the Framework) builds on the Agency for Clinical Innovations' *Same-day hip and knee joint replacement surgery* key principles by providing details of approaches that are currently being used by some Local Health Districts which can be adapted to local circumstances by all Districts and Networks. These approaches provide care pathways for patients following discharge from same day or short stay orthopaedic surgery.

The District and Networks specific local models of care detailed here have been referenced throughout the document and have also been reviewed by members of the Surgical Services Taskforce and Agency for Clinical Innovation Networks.

For further information on any of the pathways in this document, please contact the surgery team at moh-spb@health.nsw.gov.au.

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Aims of the document

1. Provide a snapshot of the specific challenges facing orthopaedic surgery access.
2. Provide the key principles for pathways for total hip/knee replacement patients
3. Provide resources to assist with adaption to local circumstances including local examples

Impact of COVID-19 on joint replacement surgery access

Hip and knee replacement (or arthroplasty) are some the most common procedures performed in NSW public hospitals. In 2018, before the COVID-19 pandemic, the total number of knee and hip replacements completed in the NSW public sector was 11,137¹.

Access to non-urgent total hip and knee replacements were impacted due to the COVID-19 Pandemic. During the COVID waves, Clinicians were requested to review their waitlist and surgery that were identified as non-urgent (Category 3 and some Category 2 patients), required a post operative bed and were also safe to postpone, were placed on hold to ensure bed and workforce availability in COVID-19 peaks. This request disproportionately impacted patients waiting for Orthopaedic surgery. This is because the recommended clinical urgency category for joint replacement is Category 3 under the NSW Health Surgical Access Policy.

Post operative bed access remains a challenge in NSW due to the ongoing demands of COVID-19 on bed and staffing resources.

Building resilient surgical services

Agency for Clinical Innovations' Same-day hip and knee joint replacement surgery key principles and International evidence

There are a range of care pathways for joint replacements that reduce length of stay without compromising patient outcomes that are already used in some NSW public hospitals. However, opportunity exists to expand these models further.

International experience demonstrates the success of same day/short stay models of care. A study by S. Narayanan et al. found a large proportion of patients in the UK and USA are

¹ Bureau of Health Information, Healthcare Quarterly results Jan-Mar 2018, April-June 2018, July-September 2018, October-December 2018 <https://www.bhi.nsw.gov.au/data-portal>

discharged on the same day of joint replacement surgery. A study from the USA predicts that by 2026, over 50 per cent of all total joint arthroplasty patients will be discharged on the same day². This presents a significant opportunity for public hospitals in NSW to build resilient surgical services to ensure elective surgery patients can receive timely and safe access to care even in the event of a system stressor event such as a pandemic.

Evidence demonstrates that patients treated using standard inpatient protocols including a bed stay against those treated under an outpatient protocol have equivalent outcomes and no difference in adverse events and readmission rates. Functional outcomes are also similar with the inpatient cohort when patients are selected appropriately for same-day surgery³.

The *Joint Replacement Pathways Framework* (the Framework) builds on the Agency for Clinical Innovations' [Same-day hip and knee joint replacement surgery key principles](#) by providing details of approaches that are currently being used by some Local Health Districts which can be adapted to local circumstances by all Districts and Networks. These approaches provide care pathways for patients following discharge from same day or short stay orthopaedic surgery.

Same Day Joint Replacement Surgery – overview

Same Day joint replacement surgery models discharge the patient the same day they have received their joint replacement surgery. Discharge is depending on if they meet the pre-operative patient criteria and it is clinically appropriate post operatively.

The key principles of this model have been defined in ACI [Same-day hip and knee joint replacement surgery key principles](#); these include:


- Establishment of a day-stay treatment team
- Pre-operative-patient education
- Appropriate multi modal analgesia

² Shankar Narayanan, MD; Thomas Schmicker, MD; and Ran Schwarzkopf, MD, MSc, Is Same-Day Discharge Safe for Total Joint Arthroplasty Patients? ICJR, November 2021.


³ Andrew Bodrogi, MD; Geoffrey Dervin, MD, MSc; and Paul Beaulé, MD, Management of patients undergoing same-day primary total hip and knee arthroplasty, CMAJ, January 2020.

- Early mobilisation
- Patient follow-up after discharge

When used in the appropriate clinical context the same day joint replacement model is highly valued by patients³ and can also help ongoing issues within hospitals such as bed availability and large surgical overdue lists. Example patient feedback from a District is below:



It gave me a peace of mind being at home. You are more relaxed with home comforts around you!



My journey to day surgery has arisen as a side effect of an interest in a more comfortable patient arthroplasty experience, associated with a more rapid return to function.

Short Stay Joint Replacement Surgery - overview

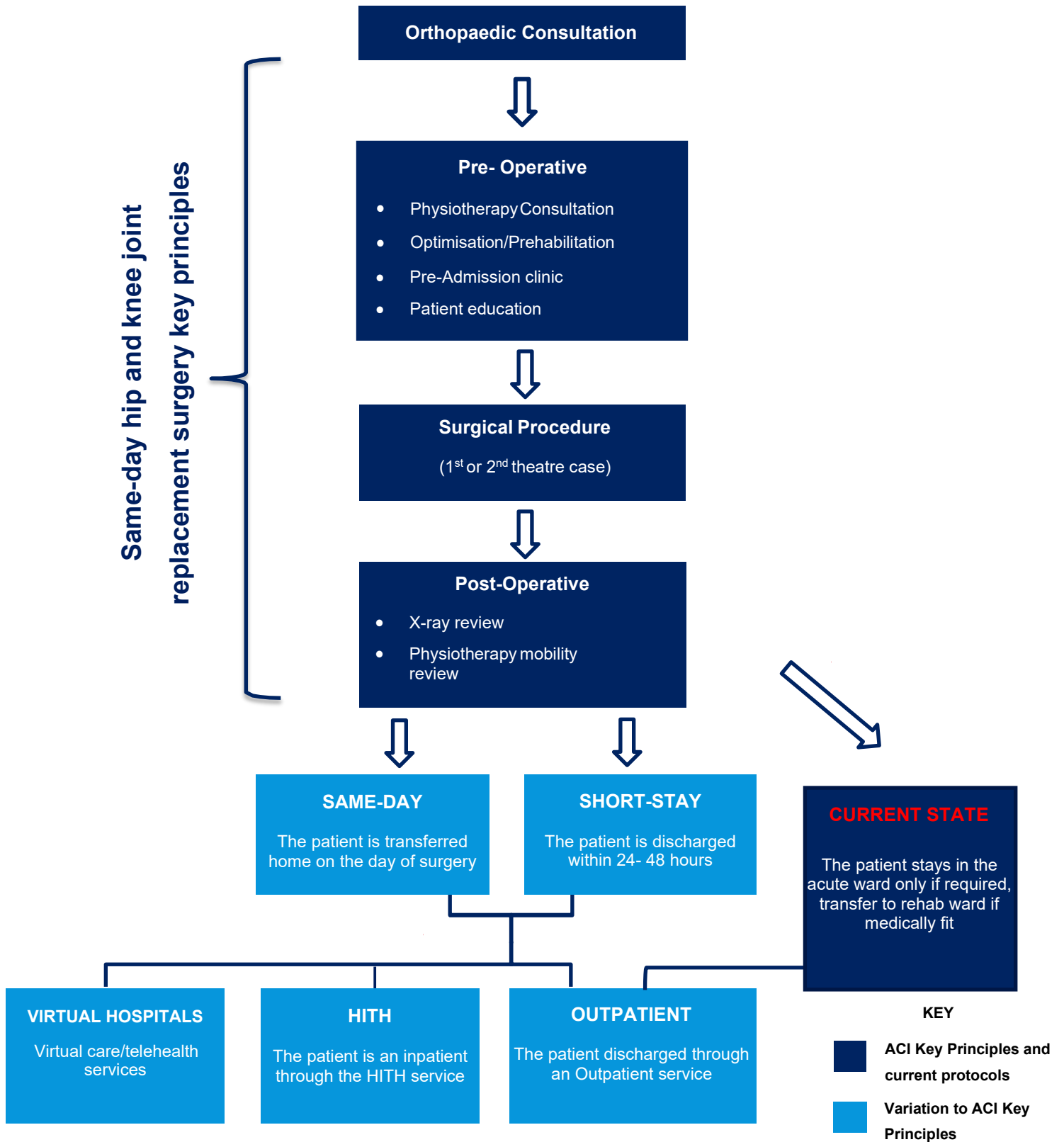
If a patient is not suitable for same-day surgery, they should be considered for short-stay surgery. This pathway aims to discharge the patient within 24-48 hours with focus on multidisciplinary collaboration between patient and care team to ensure enhanced recovery and positive outcomes for the patients at home. The benefits of short stay, like same day surgery include:

- Tailored patient care.
- Greater patient satisfaction and comfort.
- Improved surgical outcomes and recovery. Studies show that blood transfusions are lower, overall incidence of major complications are lower, and that patient groups that have outpatient surgery can recover faster at home⁴.
- System benefit regarding cost, care in the home is cost-effective particularly at scale.
- Support hospital inpatient bed capacity and patient flow.

⁴Frassanito, L., Vergari, A., Nestorini, R. *et al.* Enhanced recovery after surgery (ERAS) in hip and knee replacement surgery: description of a multidisciplinary program to improve management of the patients undergoing major orthopedic surgery. *Musculoskelet Surg* **104**, 87–92 (2020).

<https://doi.org/10.1007/s12306-019-00603-4>

Overview of the total hip and knee replacement pathway



Key Principles

The ACI recommended principles are to serve as a template to be used for guidance. Facilities may have different resources, processes and protocols to those outlined in this document, but the principles outlined should be followed and addressed for introduction of same- day and short stay joint replacement surgery.

1. Establishment of a day-stay/short stay treatment team

The ACI same-day joint replacement key principles recognises that the establishment of a multidisciplinary team is important in implementing this joint replacement pathway. The key roles and responsibilities of the care team needs to evolve to support the changes that need to happen to make same-day and short stay joint replacement possible. Each facility will have different baseline processes and protocols, so each team will have different changes to implement to achieve the model.

The Multidisciplinary Health Team – members and roles

Following a 3-month consultation with the Districts who use the same-day and short-stay joint replacement pathways, several features have been identified as key:

1. The multidisciplinary team in supporting same day and short stay hip and knee in the development and implementation of pathways.
2. Within this team, a dedicated Orthopaedic Care Coordinator to drive change through the transition to and sustaining these models. Districts that have this role have identified either a senior physiotherapist or a senior registered nurse for this role.

Local roles and responsibilities should be agreed within the local context of the patient cohort hospital's agreed pathway, available resources, and staff availability. The table below is a starting point for discussion only.

Position	Stage in pathway			Role in joint replacement pathways
	Pre op	Intra op	Post op	
Orthopaedic Surgical team	✓	✓	✓	<ul style="list-style-type: none"> • Identification of patients suitable for same day or short stay surgery • Discussing pre op and post op plans with patient • Scheduling of patient as first on AM theatre list • Surgery

Position	Stage in pathway			Role in joint replacement pathways
	Pre op	Intra op	Post op	
				<ul style="list-style-type: none"> • Assessment of patient following surgery that appropriate to go home same day • Follow up care • Monitoring and management of functional outcomes.
Anaesthetists/Pain team	✓	✓	✓	<ul style="list-style-type: none"> • Review of patient in pre-admission clinic if suitable for same day and short stay surgery • Discussing pre op and post op plans with patient • Intraoperative anaesthetic choices and pain management upon discharge • Assessment of patient following surgery that appropriate to go home same day (if applicable) • Follow up care (if applicable)
Orthopaedic Care Coordinator	✓	✓	✓	<ul style="list-style-type: none"> • Working with surgeons and anaesthetist for the identification of patients suitable for same day or short stay surgery • Discussing pre op and post op plans with patient • Point of contact for patient questions • Documentation of local care pathways, reviews, escalation pathways and evaluations. • Follow up care including feedback on service, issue management etc • Oversee and coordinate the patients care • Monitor, manage and escalate pain management • Coordinate with local in-reach and inpatient rehab team so that those who have complications and cannot go home safely have rehab infrastructure available
Physiotherapists	✓		✓	<ul style="list-style-type: none"> • Pre-operative patient assessment and education of patients identified as suitable for same day or short stay procedure • Safety risk assessment • Escalate any concerns re patient selection to same day or short stay pathway to surgeon and hospital team pre-operatively • Post operative mobilisation and progression of functional goals
Occupational Therapists	✓		✓	<ul style="list-style-type: none"> • Pre-operative assessment, and education of identified patients • Safety risk assessment • Prescription of ADL equipment as appropriate • Escalate any concerns re patient selection to same day pathway to surgeon and hospital team preoperatively

Position	Stage in pathway			Role in joint replacement pathways
	Pre op	Intra op	Post op	
				<ul style="list-style-type: none"> • Progression of functional goals
Discharge Planner (Role can be done by Orthopaedic Care Coordinator)	✓		✓	<ul style="list-style-type: none"> • Working with surgeons on identification of patients suitable for same day or shortstay surgery • Escalate any concerns re patient selection to same day pathway to surgeon and hospital team preoperatively • Discussing post op plans with patient • Ensuring appropriate discharge pain management plan
Social Worker (if applicable)	✓		✓	<ul style="list-style-type: none"> • Pre-operative assessment and education of identified patients • Escalate any concerns re patient selection to same day pathway to Surgeon and hospital team pre-operatively. • Coordinate and refer for any required services ie ComPacks
Pharmacist	✓		✓	<ul style="list-style-type: none"> • Pharmacy services to also be accessible outside of business hours when patients are discharged i.e., late afternoon/evening. • Provide education and support to patients for post op medications.
Pre-admission clinic staff	✓		✓	<ul style="list-style-type: none"> • Pre-operative patient education of identified patients • Support optimisation of patients pre-operatively • Liaise with Orthopaedic Care Coordinator and support pre-operative care needs of patients prior to formal admission ie pathology, medical imaging, pre-op medication and fasting instructions. • Escalate any concerns re patient selection to same day pathway to surgeon and hospital team pre-operatively.
Recovery staff	✓		✓	<ul style="list-style-type: none"> • Following endorsed local same day pathway for identified patients. • Escalate any concerns re patient on same day pathway to surgeon/anaesthetist as per pathway
Day surgery and short-stay surgery Nursing staff	✓		✓	<ul style="list-style-type: none"> • Following endorsed local pathway for identified patients. • Escalate any concerns re patient on to same day pathway to surgeon and hospital team as per pathway

Position	Stage in pathway			Role in joint replacement pathways
	Pre op	Intra op	Post op	
Hospital in The Home (Nursing and Allied Health)	✓		✓	<ul style="list-style-type: none"> • Provide patient with pre-op education about the role of HITH service • Safety risk assessment • Provide post operative care in the patient's home • Following endorsed local care pathway for identified patients. • Escalate any concerns re patient selection as per agreed pathway
Surgical Bookings Administration staff For further information on the role of the Surgical Bookings Team for Elective Surgery, please refer to Elective Surgery Access Policy .	✓		✓	<ul style="list-style-type: none"> • Confirm patient is aware they are scheduled for same day surgery. • Escalate any concerns re patient selection as per agreed pathway. • Scheduling of patient to AM (morning) list surgery list where possible.

Leadership and change management

The [ACI Same-day hip and knee joint replacement surgery key principles](#) provide the overarching guidance on how to deliver same day care surgery. The following principles support the change focus required.

Implementing a new model of care can be challenging. Organisational changes in health care are more likely to succeed when health care professionals have the opportunity to influence the change, feel prepared for the change and recognise the value of the change, including perceiving the benefit of the change for patients⁵.

Strong leadership is a key factor in change management. Changes in surgical care pathways require good leadership and forward thinking to be successful. There is significant evidence highlighting the importance of collective leadership in health care organisations⁶. This means that change must be influenced in a bottom-up way (by clinicians and service managers) and not just through the top-down application of formal authority. For the change to be sustainable, the involvement of leaders from clinical backgrounds at different levels is important and include the different teams that will support the patient through their surgery journey.

The following are important:

Executive Sponsor. Effective sponsorship is the single most important part of successful project implementation. The role of the sponsor is to ensure that project goals are aligned with District and Network wider surgical strategies and to ensure the project team has the resources to fully realise the benefits of the same day joint model. This can include protected project time for staffing and communicating key milestones of the project to key stakeholders.

⁵ <https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-020-4999-8>

⁶ Lv, C.-M. and Zhang, L. (2017). How can collective leadership influence the implementation of change in health care? *Chinese Nursing Research*, 4(4), pp.182–185. doi:10.1016/j.cnre.2017.10.005.

Champion/s, Program Lead/s /Change Agents. It essential that there is at least one person to act a “source of truth” to lead and champion the program be responsible for coordinating communication and deal promptly with potential hurdles or issues during its development and implementation.

A coordinator who can dedicate the time to case managing the patient and ensuring the patients success on the intended pathway

A change and communication strategy for all stakeholders.

Assessment group. To regularly review the program in the first 6-12 months and identify any quality or access issues which may require fine tuning or protocol

For further information on communication strategies and tools, please refer to Whole of Health [Communication Toolkit](#).

For further information on principles and tools for implementing change, please refer to [Accelerating Implementation Methodology](#).

2. Patient selection criteria

Patient selection and suitability for same day or short stay joint replacement should be agreed by the surgeon, anaesthetists, and allied health clinicians. Patient selection should be consultant-led based on clinical assessment, with a multidisciplinary approach.

The [ACI Same-day hip and knee joint replacement surgery key principles](#) identified the following patient selection criteria and indicators for consideration of same-day joint replacement.

Criteria	Indicators
Pre-operative Functional Assessment	<ul style="list-style-type: none"> Independently mobile (with or without walking aid) No faints or falls within the last 12 months Single unilateral joint replacement Consider assessment of the home environment Identified as not-at-risk of worse pain or disability after surgery
Comorbidity Profile	<ul style="list-style-type: none"> BMI < 35

Criteria	Indicators
	<ul style="list-style-type: none"> • Age < 75 years • ASA 1 or 2 • No significant opioid use • No suspected or diagnosed OSA (may require airway assessment by anaesthetist), has no poorly controlled diabetes, history of IHD or CVA/significant cardiac history, no significant respiratory disease, inflammatory arthropathy or renal disease or other medical issue requiring inpatient care • Non-smoker • Consider cognitive assessment, risk of delirium, pre-existing use of anticoagulants, medication review, renal function assessment, and urinary retention
Patient Psychosocial Profile	<ul style="list-style-type: none"> • Patient willing to be involved in a day-stay or short-stay program • Shared decision making between the care team and the patient • Availability of suitable carer or support person to stay with patient for 72 hours after discharge
Distance or location	<ul style="list-style-type: none"> • Lives within 60-minutes travel of the hospital where the surgery occurred (applicable for regional or rural hospitals) • Suitable vehicle for transport available • Post-operative physiotherapy available (face to face or virtual care)

3. Pre-operative Care including patient education

The [ACI same-day joint replacement key principles](#) have highlighted that patient education and prehabilitation/optimisation in the pre-operative stage is essential to ensure that patients are prepared for surgery, physically and psychologically. It is also critical to ensure that the patient is comfortable and confident with the suggested pathway for same day/short stay surgery.

Pre-admission Clinic

The clinic optimises and supports management of the patient's perioperative risks associated with their planned procedure (THR, TKR) and anaesthesia. The management of patients undergoing same day or short stay joint replacement in the Pre-admission Clinic

should be in line with the NSW Health [Perioperative Toolkit](#).

Prehabilitation

Prehabilitation is a process that aims to enhance a patient's physical and psychological function to support them before, during and after surgery.

Prehabilitation enables people waiting for THR and TKR to prepare for surgery by promoting healthy behaviours by prescribing exercise, nutrition, education, and psychological interventions. Prehabilitation should be incorporated in same day or short stay pathways to ensure the patient is optimised for surgery physically and psychologically. Risk factors such as smoking, alcohol consumption, anaemia, nutritional and metabolic status, and low physical activity may lead to complications and prolonged hospital stay. The optimisation of these modifiable risk factors will benefit the patients undergoing THR and TKR by promoting faster recovery and lead to better patient experience and outcomes⁷.

For more information about Prehabilitation and surgery, please refer to ACI [Prehabilitation: Key principles for preparing patients for surgery](#) and [Case studies of existing prehabilitation sites in NSW](#).

Access to Prehabilitation	Information on Pathways	Link to resources
General Practitioner	The Royal Australian College of General Practitioners (RACGP) released recommendations for modifiable risk factors and Prehabilitation to minimise risk factors and to improve outcomes following THR and TKR.	Pre-operative optimisation for hip and knee arthroplasty: Minimise risk and maximise recovery
Hospital Outpatients Services	The NSW Osteoarthritis Chronic Care Program (OACCP). The objective of the OACCP is to reduce pain, improve function and quality of life of NSW residents with OA, who have elected conservative management of their joint disease, or who are waiting to undergo elective lower limb joint replacement surgery	Osteoarthritis Chronic Care Program Model of Care Musculoskeletal Service Directory

⁷ Wall C, de Steiger R. Pre-operative optimisation for hip and knee arthroplasty: Minimise risk and maximise recovery. Aust J Gen Pract. 2020 Nov;49(11):710-714. doi: 10.31128/AJGP-05-20-5436. PMID: 33123714.

	Some LHDs offer prehabilitation services within their Rehabilitation Medicine Department	Check with your local Rehabilitation Clinic/Service.
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NSW Osteoarthritis Chronic Care Program

[The NSW Osteoarthritis Chronic Care Program \(OACCP\)](#) is a comprehensive, multidisciplinary conservative management program for people in NSW with osteoarthritis of the hip and/or knee. The objective is to reduce pain, and improve function and quality of life. OACCP focuses on people with osteoarthritis who have elected for conservative management or those on the waitlist for joint replacement surgery.

Many prehabilitation programs generally occur 6 - 12 weeks before surgery. OACCP programs typically run for 12 months with three monthly review appointments to allow adequate opportunity for lifestyle change modification. The 12-month model means for those awaiting surgery and being considered for same day or short stay pathways that involvement of OACCP services should occur when they are placed on the waitlist, to allow greater opportunity and time for uptake of healthy behaviours and comorbidity management as well as optimisation for surgery.

The OACCP pilot evaluation found improved comorbidity management with a modest reduction in obesity and hypertension at program sites. It also identified an improved readiness for surgery with reduced rates of cancellation on day of surgery rates (patient reasons) at the point of admission for those proceeding to surgery. This was achieved through proactive and early co-morbidity management; early identification and addressing of home modification needs; improved patient understanding and expectations of surgery, hospitalisation processes and outcomes by the individual early in the waitlist process.

The [OACCP program is available across NSW, the service directory](#) provides information on available services as well as eligibility requirements and services provided within each locality.

Patient Education

Pre-operative education on same-day and short-stay joint replacement should start from when patients have their initial surgical consultation and when they are placed on the surgery waitlist. It is important to set expectations early. The patient and their carer should be provided with verbal and written education and instructions in line with the patients' health literacy level. Instructions should be available for all patients regardless of CALD (Culturally

and Linguistically Diverse) status.

Districts and Networks should recognise the importance of involving patients and their carers in their own care and provide clear communication to patients at every stage of their surgical journey. It is important to have communication strategies targeted towards patients and their carers that will help them achieve shared decision making towards their health goals.

For examples of Patient Resources used by Local Health Districts in Same-day and Short Stay Joint Replacements, see the links below.

- Poster
- Leaflet
- Booklet

4. Intra-Operative care

As outlined in the [Perioperative Toolkit](#), each patient's individual journey should follow a planned standardised pathway. Some adjustments to the anaesthetic and surgical techniques are used for TKR and THR and have enabled patients to be discharged home safely on the same day with minimal pain. Further education and training opportunities for the surgical and anaesthetic team to enhance technical skills is important to enable a same-day or short-stay pathway. Further education and training opportunities for surgical and anaesthetic team to enhance technical skills is important to enable a same-day or short-stay pathway.

To improve coordination and care of patient in the same day or short stay pathways, particular steps should be introduced such as:

- Anaesthetic and surgical techniques used should be compatible with day surgery and enhanced recovery principles
- Patients should be booked as early in the day as reasonably achievable e.g., first or second on the morning theatre list
- Appropriate use of multi-modal analgesia minimal side effects
- Utilising a minimally invasive approach

For an example of how same-day joint replacement intraoperative care applies in practice, please refer to Grafton Base Hospital Intraoperative Pathway.

Enhanced Recovery After Surgery Society Recommendations

There is also a large volume of heterogeneous studies across all Enhanced Recovery After Surgery (ERAS®) components within total hip replacement (THR) and total knee replacement (TKR) surgery. This multidisciplinary consensus review summarizes the literature and proposes recommendations for the perioperative care of patients undergoing total hip replacement and total knee replacement with an ERAS program.

Best practice ERAS for joint replacement includes optimising preoperative patient education, anaesthetic technique, and transfusion strategy, in combination with an opioid-sparing multimodal analgesic approach and early mobilisation.

Teams should refer to the [Consensus statement for perioperative care in total hip replacement and total knee replacement surgery: Enhanced Recovery After Surgery \(ERAS®\) Society recommendations.](#)

5. Post-operative Care

Same-day and short-stay joint replacement patients are to be discharged when they meet routine discharge criteria, including the ability to meet functional goals and able to mobilise safely at home. A written post-operative set of instructions should be provided and contact name and phone number for the patient to telephone should they experience complications. A follow up plan in person, by phone or virtual should also be discussed.

Early mobilisation

The [ACI same-day joint replacement key principles](#) recognise the importance of early mobilisation to a successful same-day discharge. The experience of patients walking independently early after surgery can have a positive effect on self-efficacy and their experience of pain. It also encourages the patient to regain functional independence.

Early mobilisation post-operatively and physiotherapy is essential in preparing and ensuring the patient can be safely discharged the same day or within 48 hours. Unless the surgical team has clearly stated otherwise, early mobilisation is permitted. A post operative x-ray can also be recommended prior to mobilisation if necessary. Early mobilisation is considered a key component of *SESLHD short stay Hip and Knee replacement model* and *Royal North Shore Hospital Same-Day joint Replacement pathway*.

6. Options for discharge

Follow up care after a same day or short stay joint replacement is important to ensure that the patient is recovering well, and post-op concerns are addressed. Post discharge supports and surveillance vary and there are a range of options for the surgical team to consider based on local resourcing, availability of services and the preference of the patient.

Based on the needs of the patient and preferences of the surgical team pathways for post-hospital care include:

- Virtual Care
- Hospital in the Home/Rehabilitation in the home (where available)
- Outpatient follow up

Discharge support & escalation

Whatever the path for post-discharge care is, a clear plan must be in place for the patient in relation to what ongoing support they will receive and the steps to be taken in the event of change or deterioration. A clear, structured, and sustainable escalation plan should be tailored by each same day/short stay service according to NSW Health and local protocols. Patients, carers and healthcare staff should be provided with information on when and how to escalate concerns if experiencing issues such as uncontrolled pain, inability to pass urine, confusion and bleeding from surgical wound. Education for patients, carers and families (if appropriate) should include plans for:

- What should I expect after surgery?
- What are the things to watch out for?
- Who to contact if I am concerned?

Hospital in the Home (HITH)

HITH services provide care in the patient's home as a substitution for in hospital care. Instead of receiving care in hospital the patient is able to receive ongoing care in the comfort of their own home. Evidence demonstrates that HITH provides the same quality of care and in some cases superior outcomes. Service delivery is modelled on the same processes as in a hospital ward, with ongoing medical oversight, daily clinical assessment, including monitoring of vital observations and access to relevant allied health interventions for example: physiotherapy for regaining of knee flexion following TKR.

The role of the team is to oversee the patient's recovery including observations, wound monitoring, pain management, mobilisation and progression of function.

Medical governance can be coordinated locally as per preference of the surgery team, either remaining with the surgical team or sitting with the HITH medical officer.

By transferring the patient to HITH from same day surgery or short stay the surgical team can have the same confidence that the patient will be closely monitored and that any deterioration or changes in the patient's status will be escalated in a timely and safe manner.

For further information on Hospital in the Home please see the [NSW Health website](#).

Virtual Hospitals

Like HITH, virtual care (VC) is another option to support discharge and the monitoring of the patient whilst they recover and rehabilitate from arthroplasty. Virtual care offers an opportunity for health services to connect with patients whilst they recover in their home or similar environment.

VC safely connects patients with health professionals to deliver care when and where it is needed. It complements and can substitute the face-to-face care that patients and clinicians are used to.

For post-surgical monitoring different virtual care modalities can be used discretely or in combination, this includes

- **telephone**
- **video conference**
- **remote monitoring** – such as apps which monitor some vital signs such as blood pressure, temperature and other metrics such as a pain scale.
- **store and forward** –such as the forwarding of photo of the surgical wound from the patient to the surgical team for review.

RPA Virtual Hospital is currently piloting the Surgery Support Accommodation project. This enables patients to transition safely and comfortably from hospital to hotel accommodation and then back to their own home following surgery. This model is designed to give surgical patients a chance to recover in a home-like environment with 24/7 clinical support and care, including on-site nursing staff and access to specialised clinics, prior to being discharged home.

For further information about Virtual Care, please refer to the [NSW Health Website](#).

Outpatient Services

Outpatient review is a common post operative model and usually occurs with a post operative call within 24-48 hours of discharge, outpatient physiotherapy and surgical review in the orthopaedic outpatient clinic or the private room of the surgeon.

Selecting which model of post discharge care is preferred is dependent on the following factors:

- Surgeons' preference for level of monitoring
- Patient's age and risk factors
- Patients' preference
- Availability and resourcing of the different services

Evaluation and Continuous Improvement

To ensure any new pathway is achieving the intended goals, it is important feedback is collected from patients and carers to ensure that services are meeting their needs. Patient and carer feedback systems may include surveys, real-time systems such as patient experience trackers, focus groups and consumer consultations.

Example survey available

For access to an evaluation tool specific to joint replacement pathways and patient experience, please email the surgery team at moh-spb@health.nsw.gov.au

The continual review of clinical practice and outcomes is a critical component of ongoing quality improvement in healthcare. The purpose of internal/external audit cycles are to:

- measure clinical outcomes (such as length of stay, readmissions, and complications)
- measure non-clinical outcomes (such as economics, and patient satisfaction/experience)
- maintain the concept as dynamically as possible (including new available evidence and modifying the multimodal concept).

The Clinical Excellence Commission provides a range of tools and resources to support NSW Health staff to improve the quality of care for our patients. The tools and resources

include graphs, charts, diagrams, and mapping tools designed to help you plot the data around your intended quality improvement initiative.

For further information on conducting clinical evaluation please see [CEC Quality Improvement Tools](#).

The multiple small changes that can be implemented to result in a dramatically improved patient experience become very compelling!

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Acknowledgments

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Rehabilitation Network

Surgical Services Taskforce
