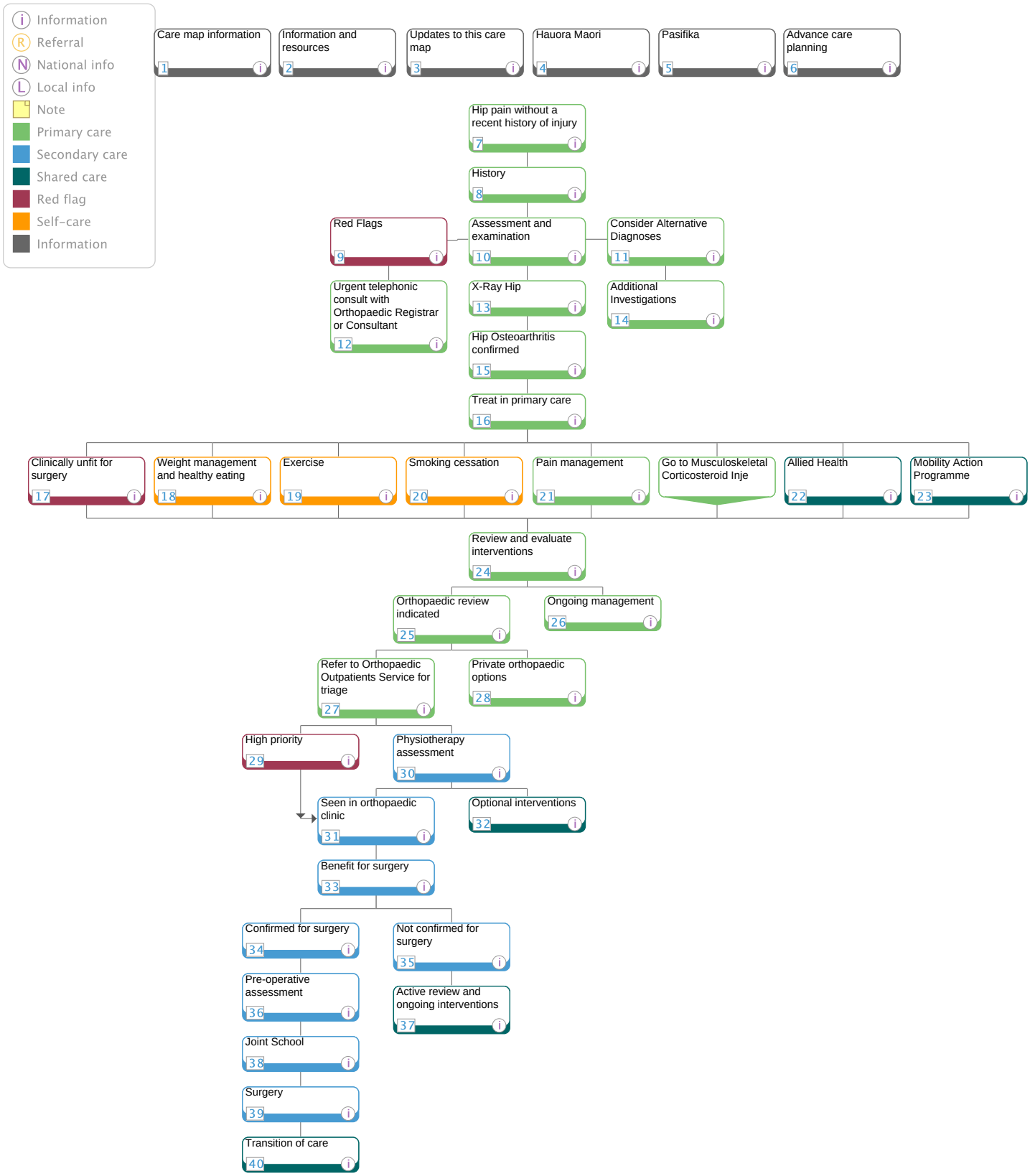
Osteoarthritic Hip

Surgery > Orthopaedics > Osteoarthritic Hip



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This care map was published by Hawkes Bay District. A printed version of this document is not controlled so may not be up-to-date with the latest clinical information.

Osteoarthritic Hip

1 Care map information

Quick info:

Scope:

- suspicion of osteoarthritis in the hip joint

Out of scope:

- ACC patients

This Pathway should be used only for people in which it will influence the person's management. It is to be used as a guide and doesn't replace clinical judgement.

2 Information and resources

Quick info:

Coming to the orthopaedic department at HB Hospital
Health Navigator
A Guide to Elective Surgery at Hawke's Bay Hospital
Osteoarthritic hip patient pathway

Language translation assistance:

HBDHB Interpreting Service. To make an appointment (charges may apply):

- phone 06 878 8109 ext 5805 or
- email interpreting@hawkesbaydhb.govt.nz

These websites may help with simple words and phrases:

- Babelfish
- Google translate

Language Line. Professional interpreters are available, free of charge, for telephone-based sessions (44 languages are supported):

- email language.line@dia.govt.nz
- Phone 0800 656 656
- Monday - Friday 9am - 6pm
- Saturday 9am - 2pm

Bookings are not usually necessary. For longer consultations it is best to make a booking at least 24 hours in advance.

3 Updates to this care map

Quick info:

Date of publication: September 2014
Date of review and republish: January 2018
Next review due: January 2020

This care map has been developed in line with consideration to evidenced based guidelines.
For further information on contributors and references please see the care map's Provenance.
NB: This information appears on each page of this care map.

4 Hauora Maori

Quick info:

Maori are a diverse people and whilst there is no single Maori identity, it is vital practitioners offer culturally appropriate care when working with Maori whanau. It is important for practitioners to have a baseline understanding of the issues surrounding Maori health. This knowledge can be actualised by (not in any order of priority):

- considering the importance of introductions ('whanaungatanga') - a process that enables the exchange of information to support interaction and meaningful connections between individuals and groups. This means taking a little time to ask where this person is from or to where they have significant connections
- asking Maori people if they would like their whanau or significant others to be involved in assessment and treatment
- asking Maori people about any particular cultural beliefs they or their whanau have that might impact on assessment and treatment of the particular health issues

Maori health services

HBDHB contracts Maori health providers to deliver community based nursing and social support services. Practitioners should discuss, where appropriate, information about relevant Maori health services. A referral to one of these providers may assist Maori people to feel more comfortable about receiving services following discussions.

***Central Hawke's Bay**:*

Central Health
Cnr Herbert & Ruataniwha Streets, Waipukurau
Phone: 06 858 9559 Fax: 06 858 9229
Email: reception@centralhealth.co.nz
Referral Form

***Hastings**:*

Te Taiwhenua o Heretaunga
821 Orchard Road, Hastings 4156
Phone: 06 871 5350 Fax: 06 871 535
Email: taiwhenua.heretaunga@ttoh.iwi.nz
Referral Form

Kahungunu Health Services (Choices)
500 Maraekakaho Road, Hastings
Phone: 06 878 7616
Email: kahungunu@paradise.net.nz
Referral Form

***Napier**:*

Te Kupenga Hauora
5 Sale Street, Napier
Phone: 06 835 1840
Email: info@tkh.org.nz
Referral Form

***Wairoa**:*

Kahungunu Executive (no website)
65 Queen Street, Wairoa 4108
Phone: 06 838 6835 Fax: 06 838 7290
Email: kahu-exec@xtra.co.nz

Secondary care Maori Health Services:

Hawke's Bay DHB - Te Wahanga Hauora Maori Health Services
Phone: 06 878 8109 ext. 5779, 06 878 1654 or 0800 333 671 Email: admin.maorihealth@hawkesbaydhb.govt.nz

Further Information

Practitioners should be versed in the knowledge of:

- historical overview of legislation that impacted on Maori well-being
- Maori models of health, such as Te Whare Tapa Wha and Te Wheke when working with Maori whanau
- national Maori Health Strategies:
  - **Mai Maori Health Strategy 2014-2019 -** Full file or Summary diagram
  - **He Korowai Oranga**: Maori Health Strategy - sets the Government's overarching framework to achieving the best health outcomes for Maori
- local Hawke's Bay health sector's strategies and initiatives for improving Maori health and wellbeing
- Medical Council of New Zealand competency standards

Cultural Competency Training

Training is available through the Hawke's Bay DHB to assist you to better understand Maori culture and to better engage with Maori people. Contact the coordinator

Email: education@hbdhb.govt.nz to request details of the next courses.

5 Pasifika

Quick info:

Pacific people value their culture, language, families, education and their health and wellbeing. Many Pacific families have a religious affiliation to a local church group.

The Pacific people are a diverse and dynamic population:

- more than 22 nations represented in New Zealand
- each with their own unique culture, language, history, and health status
- share many similarities which we have shared with you in order to help you work with Pacific people more effectively
- for many families language, cost and access to care are barriers

Pacific ethnic groups in Hawke's Bay include Samoa, Cook Islands, Fiji, Tonga, Niue, Tokelau, Kiribati and Tuvalu. Samoan and Cook Island groups are the largest and make up two thirds of the total Pacific population. There is a growing trend of inter-ethnic relationships and New Zealand born Pacific populations.

Acknowledge The FonaFale Model (Pacific model of health) when working with Pacific people and families.

General guidelines when working with Pacific people and families (information developed by Central PHO, Manawatu):

- Cultural protocols and greetings
- Building relationships with your Pacific people
- Involving family support and religion during assessments and in the hospital
- Home visits

Hawke's Bay-based resources:

- HBDHB interpreting service website **or** phone 06 8788 109 ext. 5805 (no charge for the hospital; charges may apply for community-based translations) **or** contact coordinator at interpreting@hbdhb.govt.nz
- Pacific Navigation Services Ltd Phone: 027 971 9199
- services to assist Pacific people to access healthcare (SIA)
- Improving the Health of Pacific People in Hawke's Bay - Pacific Health action Plan

Ministry of Health resources:

- Ala Mo'ui Pathways to Pacific Health and wellbeing 2014-2018
- Primary Care for Pacific people: a Pacific and health systems approach
- Health education resources in Pacific languages (links to a web page where you can download resources)

6 Advance care planning

Quick info:

Advance Care Planning:

Advance Care Planning is a voluntary process of discussion and shared planning for future health care. It involves the person who is preparing the plan, and usually involves family/whanau and health care professionals.

Advance Care Plan:

An Advance Care Plan is the outcome of Advance Care Planning. It is formulated by the person and sets out their views about care towards the end of their life. It may also include views about medical care and a wide range of other matters. An Advance Care Plan may include an Advance Directive.

Advance Directive:

An Advance Directive is a statement a person makes about their medical care in the future and becomes effective if a person ceases to be competent to make decisions for themselves. An Advance Directive is legally binding if made in appropriate circumstances.

Competency and Advance Care Planning:

Competent people have the right to make autonomous decisions that as medical professionals we may regard as imprudent, and sometimes such decisions are a reflection of the person's longstanding personality, beliefs or lifestyle. This right is described in the Health and Disability Consumers Rights Acts.

According to ACP - A Guide for the NZ Health Care Workforce - "in the context of ACP, competency relates to an individual's ability to make a decision regarding their own health care (that is, competence at decision-making or decision-capacity). At a minimum, decision making capacity requires the ability to understand and communicate, to reason and deliberate, and the possession of a set of values".

Helpful websites:

- The code of rights
- Advance care planning guide Ministry of Health
- Advance care planning resources

7 Hip pain without a recent history of injury

Quick info:

Hip pain without a recent history of injury

8 History

Quick info:

Past history of any of the following:

- injury (this does not meet the scope of this pathway)
- hip joint abnormality
- hip joint surgery
- malignancy

Pain:

- where (usually felt in anterior hip and/or groin may radiate to groin, thigh and knee)
- how severe
- how often
  - when straightening hip fully
  - when bending hip fully
  - when walking on the flat
  - when walking up or down stairs
  - in bed at night
  - sitting or lying
  - standing upright
  - walking on a hard surface
  - walking on an uneven surface

Range of movement reduced:

- difficulty spreading legs wide apart

- difficulty striding out

Stiffness:

- morning stiffness and later in the day after resting

Joint sounds/sensations:

- grinding
- clicking
- other noise

Functions of daily living:

- going up or down stairs
- standing from sitting
- standing
- bending
- walking on flat or uneven surface
- getting in and out of a car
- going shopping
- putting on or taking off socks/stockings
- getting out of bed
- lying and turning over in bed
- getting in or out of a bath
- sitting
- getting on and off a toilet
- domestic chores
- squatting
- running
- twisting on loaded leg

Quality of life:

- degree to which hip pain interferes with confidence and ability to live usual life

9 Red Flags

Quick info:

Red Flags:

- history of trauma followed by pain
- sudden onset severe pain
- persistent aching pain not related to activity
- weight bearing not possible due to the pain
- person systemically ill with a fever, and hip joint movement severely painful on minimal movement

10 Assessment and examination

Quick info:

Look at the person:

- note if person pyrexial or unwell
- measure weight and BMI

Look at the person's gait:

- note any limp or Trendelenburg gait (during the stance phase of walking, the weakened hip abductor muscles cause the pelvis to tilt downward on opposite side to lesion)

Look at the skin overlying the joint:

- question erythema
- hot
- sinus, scars

Look at the hip joint:

- note deformity and swelling

Look at the muscles

- note muscle wasting and compare sides

Feel for site(s) of tenderness

Assess range of movement (active and passive and compare both hips):

- hip flexion normally 110 to 120 degrees
- hip abduction normally 30 to 50 degrees
- hip adduction normally 30 degrees
- hip external rotation normally 40 to 60 degrees
- hip internal rotation normally 30 to 40 degrees
- note fixed flexion deformity

Measure both leg lengths (umbilicus to medial malleolus and anterior superior ileac spine to medial malleolus)

Examine the person's:

- lumbar spine
- sacroiliac joints and pelvis
- knee
- note evidence of OA elsewhere and any referred pain

Examine the lower limb vascular system

Examine the lower limb neurological system

Hip examination for OSCE review (video)

11 Consider Alternative Diagnoses

Quick info:

Other causes of pain in the hip region:

- osteonecrosis of the femoral head:
  - reduced movement of the hip occurs late
  - history of corticosteroid use or excessive alcohol use
- trochanteric bursitis:
  - lateral hip pain
  - tenderness over the trochanteric bursa
- peripheral vascular disease:
  - buttock, hip, or thigh claudication in patients with aortoiliac vascular disease
  - 'aching' pain and weakness when walking. Relieved by rest
- inflammatory arthritis e.g. rheumatoid arthritis
- malignant neoplasm of bone - primary or metastasis

Link to osteoarthritic knee pathway

12 Urgent telephonic consult with Orthopaedic Registrar or Consultant

Quick info:

Contact the Orthopaedic Registrar on call at Hawkes Bay Hospital at 878 8109 and paging the registrar.

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13 X-Ray Hip

Quick info:

A Hip Xray is required before referring the person for consideration of a Total Hip Joint Replacement:

- as people require an xray within 6 months of their surgery, if a recent xray confirming OA exists it is not necessary to repeat this
- always attach the hip xray report to any referral as reports and films are not routinely available at grading

A urgent Hip Xray is required for:

- history of injury with loss of function
- persistent aching pain not related to activity
- night pain

Other indications for Hip Xray:

- pain and functional impairment are significant
- pain when the person has had a previous hip joint replacement
- recurrent presentation with the same symptoms
- suspected bone malignancy (primary or metastatic)
- hip locking, restricted movement, or deformity

Xray signs of osteoarthritis:

- joint space narrowing
- subchondral sclerosis
- subchondral cysts
- osteophytes

Note that when a septic arthritis or osteomyelitis is suspected then refer urgently to the Orthopaedic Registrar on call on 878 8109.

14 Additional Investigations

Quick info:

To exclude alternative diagnoses. These may include:

- C-reactive protein (CRP)
- erythrocyte sedimentation rate (ESR)
- full blood count (FBC)
- rheumatoid factor (RF)
- Anti-cyclic Citrullinated Peptide (anti-CCP)

15 Hip Osteoarthritis confirmed

Quick info:

Symptoms and signs suggesting hip osteoarthritis:

- activity related pain
  - may get rest and night pain with advanced osteoarthritis
- pain usually felt in the anterior hip and/or groin but may radiate to the thigh and knee
- hip joint stiffness in the morning (usually less than 30 min) or after a period of rest
- reduced mobility affecting walking, putting on shoes or socks etc
- painful hip joint movement
- restricted hip joint movement

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- tenderness over the hip joint
- x-ray signs of osteoarthritis (joint space narrowing, subchondral sclerosis, subchondral cysts, osteophytes)

16 Treat in primary care

Quick info:

Recommended to attempt alternative treatments below for six months before any referral for surgery.

17 Clinically unfit for surgery

Quick info:

A person is considered unfit for surgery when they have had:

- myocardial infarction in the last 6 months
- cardiac surgery in the last 6 months
- unstable angina pectoris or angina pectoris at rest or on minimal effort (class 3 or 4)
- crescendo transient ischemic attacks (TIAs)
- uncontrolled hypertension (> 160/90)
- unexplained anaemia
- chronic skin sepsis (refer to Infectious Diseases Specialist)
- BMI > 40 (manage in primary care)

If person is not fit for surgery consider appropriate referral.

18 Weight management and healthy eating

Quick info:

Healthy eating:

- healthy eating for adults brochure
- healthy eating for older adults brochure
- MoH Healthy Eating, Active Living brochure
- Heart Foundation recommendations, recipes etc
- low risk alcohol advice

Weight reduction:

- refer to a Dietitian
- Heart Foundation weight loss tips
- Diabetes NZ - Healthy Food Choices & Tips

Note: it is important if the person's BMI is > 40 the person will require specific weight loss and advice before surgery.

19 Exercise

Quick info:

Exercise should be a core treatment for all people with osteoarthritis (OA) , irrespective of

- age
- co-morbidity
- pain severity
- disability

This is provided by either Sport HB or Iron Maori Green prescription.

Criteria:

- aged ≥ 18 years of age
- confirmation medical conditions are stable enough to allow low to moderate physical activity
- currently inactive e.g. < a total of 2.5 hours physical activity per week, but is ready to be more active
- understands what Green Prescription is, and consents to being referred
- able to access appropriate support if there is a physical or mental disability, or language barrier

Contacts:

- Email - grx@sporthb.net.nz
- phone - 0800 22 84 83
- referral can be via form in patient management system

20 Smoking cessation

Quick info:

See Smoking Cessation ABCD pathway.

Quitline:

- website
- phone 0800 778 778

21 Pain management

Quick info:

Pain management:

- Pharmacological (given regularly):
  - paracetamol (first line; maximum 4g a day)
  - glucosamine (1500mg/day)
  - omega 3 Fatty Acids
  - topical treatment with capsaicin or topical NSAID
  - NSAIDS/COX2 (with caution). Add PPI in the over 65 age group
  - tramadol
  - codeine at regular doses
  - strong opiates (e.g. morphine, fentanyl) if an adequate trial of the above therapies fails. Note:
    - review red flags and refer sooner or re-refer if strong opiates required for pain relief, especially if there is a sudden worsening of symptoms
    - guidelines for opioid analgesia in chronic non-cancer pain
    - pharmacological management of chronic pain
  - unable to take NSAIDs
- TENS (for at least 4 weeks)
  - use practice management system to refer to physiotherapy secondary care
- Exercise referral:
  - Green prescription for gym programme
  - Tai chi

22 Allied Health

Quick info:

Physiotherapy:

- consider a trial of community physiotherapy to assist (inform the person that they will incur the costs)

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- if the person is over 75 years, consider referral to EngAge (see Older Persons Service pathway)
- NB: If the person is Maori, Pacific or Quintile 5 they may qualify for Mobility Action Plan funding (see MAP information for details)

Occupational Therapy:
Consider aids for people with biomechanical joint pain or instability:

- bracing
- joint support
- insoles or shock absorbing footwear:
  - all people with lower limb arthritis should be offered advice on appropriate footwear (including shock-absorbing properties) as part of core treatment
  - medial wedge insoles are recommended for lateral compartment osteoarthritis (OA) and subtalar strapped lateral insoles for medial compartment OA
- splints:
  - reduce pain in trapeziometacarpal joint OA
- patellar taping:
  - use tape to stabilise the knee joint, redistributing stresses and joint pressure
  - useful for patellofemoral arthritis
  - is recommended as a short-term, intermittent treatment, to reduce pain and improve function
- consider assistive devices for patients who have specific problems with activities of daily living e.g. bath aids, raised toilet seats, stair rails

Other adjunctive therapies:

- heat or cold pack or hot baths
- transcutaneous electrical nerve stimulation (TENS) as an adjunct:
  - to core treatments for chronic moderate to severe pain
  - person does not want surgery
  - contraindications for surgery

23 Mobility Action Programme

Quick info:

Hawke's Bay DHB, Health Hawkes Bay PHO and Ironmaori have established a partnership to address health inequities and reduce pain and disability in people with a musculoskeletal condition. The aim is to build community capacity and capability to support people in Hawkes Bay to participate to the full extent in work, leisure and home life.

A strong partnership approach with the Ministry of Social Development will ensure that people are supported to remain in work or to return to work. The service will be delivered through a Whanau Ora model of care using the principles of Relationship Centred Practise. Barriers to access will be addressed specifically targeting Maori, Pacific and people in work/training/or carers who live in areas of high health need of Wairoa, Takapau, Flaxmere, and Maraenui. Self-referral and walk-in services will be provided at no cost with a range of individually tailored options including physiotherapy assessment and treatment, community wellness programmes, healthy lifestyle education, and self-management support training including the Kia Ora Long Term Condition programme (previously known as Stanford).

See MAP information for details.

24 Review and evaluate interventions

Quick info:

Suggest review and reevaluation after 3-4 months of starting interventions.

25 Orthopaedic review indicated

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Quick info:

Orthopaedic review indicated:

- moderate to severe persistent pain not relieved by a course of conservative management (e.g. paracetamol + NSAID and including weight management when appropriate):
  - pain severe when present constantly and interferes with most activities of daily living despite analgesia
- severe functional limitation:
  - walking capacity of less than 15 minutes
  - needs a walking aid
  - employment restricted
  - independence at risk
  - no longer able to act as a carer if caring for someone else in need
- radiographic evidence of joint damage

For GP information:

- physiotherapy assessment used in secondary care

This is intended as information only. It might help decide whether the person will be likely to reach the threshold for FSA (keep in mind that this threshold can depend on demand).

26 Ongoing management

Quick info:

Individual education:

- Arthritis New Zealand web site - Hawkes Bay events
- Osteoarthritis (Mayo Clinic
- Osteoarthritis (patient.co.uk)

Links to guidelines:

- Symptomatic management of osteoarthritis (bpac 2008)
- Guideline for the non-surgical management of Hip and Knee OA (RACGP 2009)
- Osteoarthritis - the care and management of osteoarthritis in adults (NICE 2008)
- Key recommendations for the management of osteoarthritis of the hip and/or knee (Cochrane)

27 Refer to Orthopaedic Outpatients Service for triage

Quick info:

Use your practice management system for referrals using:

- HBDHB standard referral
- Orthopaedic electronic referrals form

Elective Surgery Criteria:

- this is managed by balancing incoming referral numbers with resource capacity
  - those with the greatest need wil be the ones who are offered surgical treatment
- if the person does not meet criteria, they are returned to the person's GP for management. The person may be given treatment recommendations, referred for physio and/or given a review appointment

Referral information should provide:

- detailed symptoms (pain, stiffness, reduced function)
- impact on person's quality of life and refractory to non-surgical treatment

- baseline Oxford Score where known

Give patient roadmap document.

28 Private orthopaedic options

Quick info:

Refer to preferred private orthopaedic specialist, e.g. Royston Hospital or other private specialist.

29 High priority

Quick info:

High priority referrals include:

- tumours
- cancer
- vascular necrosis
- indication of infection
- loosening of primary joint

30 Physiotherapy assessment

Quick info:

If accepted through triage, person will be assessed by a secondary care physiotherapist.

31 Seen in orthopaedic clinic

Quick info:

Seen in orthopaedic clinic:

- referral assessed by orthopaedic team member
- person and GP/referrer sent a letter identifying expected wait or declining if referral does not meet access criteria
- health questionnaire sent with Physio and Specialist appointments
- physio appointment providing input for possible FSA

Physio appointment purpose:

- to provide musculoskeletal assessment of the person who are referred for hip or knee joint surgery which will inform the surgeon seeing the person at their clinic appointment and enable appropriate selection of people for surgery
- it will help to prioritise people who score similar subjective scores by who may have very different functional scores
- it will assist us to provide a fairer system by having an independant person performing the assessment
- the assessment will also provide alternative options for some people such as physiotherapy classes and potentially allow some of these people to return to primary care without having a surgical treatment

Orthopaedic Specialist FSA appointment within 5 months of referral - decision regarding treatment made and it is determined whether the elective surgery criteria has been met.

32 Optional interventions

Quick info:

Optional interventions might be completed by primary or secondary care:

- wait and see
- musculoskeletal corticosteroid injection pathway (see pathway)

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- anaesthetic work up

33 Benefit for surgery

Quick info:

Orthopaedic surgeon will decide if patient would benefit from surgery.

34 Confirmed for surgery

Quick info:

First Specialist Assessment (FSA)

35 Not confirmed for surgery

Quick info:

Not confirmed for surgery - go to active review and ongoing interventions node

36 Pre-operative assessment

Quick info:

Patient should bring **ALL** medications **AND** supplements to pre-assessment.

Patient will be assessed by the anaesthetist and the nurse.

37 Active review and ongoing interventions

Quick info:

Consider non-operative management options above.

Green Prescription

Referral to:

- GP
- Dietitian
- Physio

Reassess once medical conditions have improved.

When the person is likely to meet the criteria for surgery, the person's GP will need to refer the person back to Orthopaedic Service for reassessment.

If condition is unchanged and there are no red flags present, GP should not refer back in for at least four months.

38 Joint School

Quick info:

Joint School (2 hour class):

- person attends two weeks before surgery
- pre-education class:
  - expectation setting of 4 day length of stay in hospital post operation
  - discharge planning
  - physiotherapy for crutches
  - issued with occupational therapy equipment to take home
  - encourage a support person to attend with person receiving treatment

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39 Surgery

Quick info:

Surgery:

- admitted day of surgery
- 3-4 day length of stay in hospital post operation
  - person may be mobilised on day of surgery
- if surgery delayed or cancelled the perosn will be provided with an explanation and a new date for surgery will be discussed

40 Transition of care

Quick info:

Transition of care:

- home visit at 10 days by CNS for Napier/Hastings people
- CNS available for phone support post discharge 027 224 2081 (7am-4pm Mon-Fri)
- prophylaxis for Venous thromboembolism (VTE) is usually for 6 weeks post surgery and prescribed by the team, the choice of drug will be documented in the discharge letter and a prescription given to the person. This will be reviewed at the 6 week follow up appointment at the hospital
- six week follow up by orthopaedic surgeon
- followed by one yearly nurse led hospital follow up if uncomplicated
- under 60 year olds at time of operation will attend a nurse led clinic at the hospital every 5 years
- if over 60 years of age at time of operation attend primary nurse led clinic every 5 years

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Osteoarthritic Hip Provenance Certificate – review and republish

Overview

This document describes the provenance of Hawke's Bay's District Health Board's Osteoarthritic Hip Pathway. It was developed in November 2013 and first published in August 2014. A review of this pathway was completed in October 2017 and was re-published in December 2017. A further review of the Pathway is due in December 2019.

The Collaborative Clinical Pathways programme is one initiative stemming from the *Transform and Sustain* agenda. The main aims of CCP are to:

- → Identify opportunities to improve how health and disability care is planned and delivered within the district to improve patient access to a wider range of health services that are both closer to home and reduce avoidable hospital admissions.
- → Provide health professionals throughout the Hawke's Bay district with best practice, evidence-based clinical pathways that are available at the point of care.

Outcomes we expect to achieve include faster access to definitive care, improved health equity and outcomes, better value from publically-funded resources, and better patient experience through clear expectations, improved access and greater health literacy. These outcomes are clearly aligned to the NZ healthcare *Triple Aim* and *Better, Sooner, More Convenient* policy directions.

Editorial methodology

This Pathway was based on high-quality information and known Best Practice guidelines from New Zealand and around the world including Map of Medicine editorial methodology. It was developed by individuals with front-line clinical experience (see Contributors section of this document) and has undergone consultation to gain feedback and input from the wider clinical community.

Map of Medicine Pathways are constantly updated in response to new evidence. Continuous evidence searching means that Pathways can be updated rapidly in response to any change in the information landscape. Indexed and grey literature is monitored for new evidence, and feedback is collected from users year-round. The information is triaged so that important changes to the information landscape are incorporated into the Pathways through the quarterly publication cycle.

An update to this Pathway is scheduled for 12 months after first publication. However, feedback is welcomed at any time, with important updates added at the earliest opportunity within the Map of Medicine publishing schedule (the third Friday of each month).

References

This Pathway has been developed according to the Map of Medicine editorial methodology. Its content is based on high-quality guidelines and practice-based knowledge provided by contributors with front-line clinical experience. Feedback on this Pathway was received from stakeholders during a consultation process.

1	Bay Navigator orthopaedic pathway initiative. Available at: http://baynav.bopdhb.govt.nz/pathways
2	Canterbury DHB (2013) Orthopaedic patient pathway. Christchurch

Contributors

The following individuals contributed to this Pathway:

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- Dawn Birrell, Physiotherapist Team Leader
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- Leigh White, Portfolio Manager, HBDHB

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- Alaina Glue (original pathway)
- Rebecca Kay (original pathway)
- Leigh White (review)
- Louise Pattison (review)

Disclaimers