Health System Improvement Guide

WELL MANAGED PAIN

An Integrated Pain Service
The team would like to thank Counties Manukau Health management teams for supporting this initiative. We have appreciated the willingness to engage in an improvement process and their involvement in every stage from concept to business case.

The Ko Awatea Beyond 20,000 Days campaign team have provided a strong platform for this project and we would like to thank them for their guidance and encouragement.

Pain management in a tertiary hospital is a key concern for all clinicians. A diverse collection of individuals have been involved in this project. Some wards have used this opportunity to focus on improving pain management and have been champions of change. Thank you.

Being in pain is exhausting. We want to thank the patients and whaanau (family) who have been involved in the project. Their feedback has allowed us to refine our model of care and improve our future service.
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Chronic pain affects one in six adult New Zealanders and is a major health issue. This equates to at least 16% of inpatients having complex (chronic or difficult-to-treat-acute) pain problems, either due to persistent post-surgical pain or because they have a history of chronic pain. These patients are a high-needs group during their inpatient experience, as well as in the transition to discharge and follow-up care. People with chronic pain can also be high service users.

Despite the substantial incidence of chronic pain among inpatients and their high care needs, Counties Manukau Health (CM Health) had no specific, integrated and co-ordinated service in place for managing complex pain prior to the Well Managed Pain project. Pain management at CM Health was provided by three services: the Acute Pain Service (inpatient), the Chronic Pain Service (outpatient) and the Palliative Care Service (inpatient and outpatient).

Well Managed Pain is a multidisciplinary inpatient pain service that integrates the skills of an anaesthetist, a pharmacist, a psychologist and a clinical nurse specialist to address the needs of inpatients with complex pain. The service was developed in 2013 as part of CM Health’s Beyond 20,000 Days campaign.

The aims of the Well Managed Pain project were:
- to complete multidisciplinary assessment for 100% of patients referred to the WMP team within four days from referral
- to create a safe, rational pain management plan for each patient
- to minimise harm from medications
- to improve the patient and family experience
- to improve discharge processes and communication with primary care, the Chronic Pain Service and other community-based services
- to reduce readmissions to hospital.

A change package was developed and tested. Key changes focussed on:
- improving the patient experience by putting a consistent care team in place
- ensuring appropriate inpatient treatment with a multidisciplinary approach to assessment and care planning, and improved liaison between services and between primary and secondary care
- ensuring effective transitions of care with better discharge documentation, improved communication with primary care and patient education.
Outcomes

» In the first year, the Well Managed Pain team completed multidisciplinary assessment for all 150 patients referred within four days of referral.

» All Well Managed Pain patients received an individualised pain management plan.

» All patients received advice and information to manage their medication regimen effectively.

» Over 95% of patients had their medication regimen rationalised. Almost 60% of these had potentially harmful medication stopped.

» Reduced readmissions saved CM Health an average of $2000 per month in costs associated with patients with chronic pain.

Two Beyond 20,000 Days teams celebrate recognition of their work at the Middle East Forum on Quality Improvement in Healthcare
Well Managed Pain (WMP) is a multidisciplinary inpatient pain service that integrates the skills of an anaesthetist, a pharmacist, a psychologist and a clinical nurse specialist to address the needs of inpatients with complex (chronic or difficult-to-treat-acute) pain.

In this document, the term ‘chronic pain’ is used to refer to pain of more than six months’ duration. ‘Complex pain’ refers to pain which does not respond to usual treatment approaches. This may include severe acute pain, chronic pain with multiple presentations to hospital or someone with chronic pain who has an acute hospital admission which impacts on their usual pain management.

Chronic pain affects one in six adult New Zealanders and is a major health issue. This equates to at least 16% of inpatients having complex pain problems, either due to persistent post-surgical pain or because they have a history of chronic pain.

Despite a more comprehensive understanding of pain in recent times, effective management of pain still remains a challenge for clinicians. Part of the challenge is that “no one treatment works for every patient, even for pain of the same type and etiology”. Cognitive and behavioural factors also influence the pain experience and response to therapy. Therefore, time and input from multiple disciplines is required to treat these patients appropriately.

The importance of using a consistent team when treating a chronic or complex pain patient has been highlighted in research literature. This stability allows the patient to build trust in the physician and it keeps the treatment plan and messages consistent. The focus of WMP is to provide consistent input from a stable multidisciplinary team.

WMP was developed, funded and implemented as part of Beyond 20,000 Days. This was an umbrella campaign run by CM Health that supported a range of projects aimed at keeping people well in their communities. The campaign used the Breakthrough Series (BTS) approach to train and support participating teams in improvement methodology and collaborative working. The BTS was structured as four learning sessions interspersed with action periods. During action periods, project teams in Beyond 20,000 Days used Model for Improvement methodology to develop ‘packages’ of change ideas which related to the overall campaign aim.

The multidisciplinary team which delivered the service was supported by an expert group of consultants and senior managers. A project manager and improvement advisor were added to the team through Beyond 20,000 Days to assist with the planning and implementation of the project.

The purpose of this guide is to assist others to develop their own WMP service. Further information can be obtained by contacting the WMP team or Ko Awatea, which led Beyond 20,000 Days for CM Health.
Prior to the WMP project, inpatient pain management at CM Health was provided by three services: the Acute Pain Service (APS), the Chronic Pain Service (CPS) and the Palliative Care Service.

Patients with complex pain are a high-needs group during their inpatient experience, as well as in the transition to discharge and follow-up care. They also tend to be high service users. Despite this, CM Health had no specific services in place for medical consultation for inpatients with complex pain, and no multidisciplinary service for managing this population.

The following points illustrate the gaps that existed prior to the WMP initiative:

» CM Health had pain services for acute post-surgical pain, chronic outpatient pain and pain associated with palliative care, both inpatient and outpatient. However, it lacked a dedicated service for inpatients with difficult-to-treat-acute or chronic pain impacting on current admission.

» For many individuals in hospital the reasons for pain are not well understood, or pain is not well controlled with usual modalities. In these circumstances the APS had limited resources for medical consultation. This was due to time constraints (anaesthetic cover for acute pain rounds supports the whole hospital in a half-day session) and personnel consistency (the roster system uses different medical staff every day and different nurse specialists to cover the seven-day week).

» Multidisciplinary pain management is considered the best quality care,3,4 but there was no allocated time for nursing, pharmacy or psychology input for patients with difficult-to-treat pain.

» An audit of CM Health discharge documentation from 2012 revealed a lack of documentation of pharmaceutical pain management, including withdrawal plans. Feedback from primary care included concerns about discharge medications, patient expectations and understanding of pain medications and withdrawal of opiate medications. The transition to primary care outpatient services was inconsistent.

» There was some evidence through the concerns and complaints process that patients and their families were unhappy with the quality of pain management while inpatient.

Implications of the gaps in CM Health pain services

Poorly controlled pain is associated with longer hospital stays and patient and family distress. In addition, many people with complex pain have long-standing conditions that are associated with readmission. When pain is poorly controlled, people are less likely to engage effectively in rehabilitation, there are higher levels of frustration from patients and staff and increased risk of inappropriate use of medication. Readmission is often associated with increased emotional distress due to patient uncertainty and previous experience.

In addition, there is an economic burden for poor pain management. The Australian National Pain Strategy highlights the heavy burden pain places on the community, economy and health care services.7 Specifically, this burden lies with the patient and whaanau (family) through lost wages and non-productivity in the home; the public health service with increased length of stays, readmissions to hospital and higher medication use; and the wider public, through costs of disability payments and Accident Compensation Corporation (ACC) payments.
The specific aim of the WMP project was to complete multidisciplinary assessment for 100% of patients referred to the WMP team within four days from referral, if the individual is still an inpatient. The team will then develop and document a multidisciplinary pain care plan in conjunction with the patient and primary care.

In addition, WMP had a number of general aims.

**Safe, rational pain management plans**
- Enable patients to manage their pain and treatments.

**Minimise harm from medications**
- Optimise pharmacological treatment to treat pain, reducing opioid usage and polypharmacy.
- Reduce opiate dependency.

**Improve patient and whaanau (family) experience**
- Improve patient experience and reduce negative feedback.
- Wrap care around patients with pre-existing chronic pain or other complex pain during the acute pain episode of the surgical journey.
- Wrap care around patients having acute episodes of pain from injury and/or surgical insults to avoid the conversion of acute pain to chronic pain.
- Reduce inpatient bed days – get patients pain-free and mobile early so they are ready for discharge.

**Improve discharge processes and communication with primary care, the Chronic Pain Service and other community-based services**
- Improve acute care processes by providing improved patient safety and flow back into the community with improved multidisciplinary planning and communication to minimise unnecessary pain, reduce medication errors and reduce readmissions.
- Increase access to specialist care in the community by offering localities-based clinics.
- Improve outcomes for people with complex needs and long-term conditions by having effective case management to reduce Emergency Care (EC) presentations. This is an example of chronic care management where the focus is to improve an individual’s health literacy to understand their pain issues and maximise quality of life.
- Reduce outpatient and inpatient presentations by coordinating care with the primary sector.
Data collection

Data was collected using a patient data record sheet and entered into an Excel spreadsheet. Standardised hospital information systems were used to calculate length of stay, readmission and cost of treatment. Patients were categorised into those with chronic pain, where readmission might be expected, and those with an acute episode, where readmission would be unlikely.

Measures

- Number of individuals referred to WMP.
- Percentage of people seen by the multidisciplinary team.
- Percentage of people seen by the multidisciplinary team within four days of referral date.
- Reduced medication costs.
- Number of contacts between the patient and the WMP team.

Safe, rational pain management plans

- Number of patients with pain management plan in discharge documentation.

Minimise harm from medications

- Number of medication changes.
- Risk associated with medication changes calculated using a standardised NZ based tool.8

Improve patient and whaanau (family) experience

- Days between admission and first contact by WMP team.
- Post-discharge qualitative phone interviews for those who were not confident with medication regimes or where repeat admissions had occurred.

Improve discharge processes and communication with primary care, the Chronic Pain Service and other community-based services

- General Practitioner (GP) experience and satisfaction with contact (telephone survey of selected sample).
- EC consultation and shared management plans (case discussion meetings).
- Community Alcohol and Drug Service/Auckland Opioids Treatment Service communication for admission where both teams are involved.

Reduce readmissions to hospital

- Length of stay and frequency of readmissions in the nine months following initial WMP referral compared to the nine months prior to referral was calculated for the chronic pain group.
To assess 100% of patients with difficult to treat pain referred to the Well Managed Pain (WMP) team and, in conjunction with the patient and primary care, make a multidisciplinary (MDT) pain care plan.

**AIM**

**PRIMARY DRIVERS**
- Identification of complex pain patients
- Patient experience
- Appropriate treatment (inpatient)
- Effective transition of care

**SECONDARY DRIVERS**
- Referral
- Partnership with patient and whaanau (family)
- Treatment
- Communication with GP/community
- Communication with patient/whaanau
- Discharge documentation

**CHANGE CONCEPTS**
- Identifying patients
- Patient outcome measures
- MDT assessment
- Optimise medication
- Liaise with primary admitting team
- Liaise with primary care
- MDT pain management plan

**CHANGE IDEA**
- Use hospital data to identify patients
- Establish referral criteria
- Establish referral pathway
- Patient satisfaction tool
- Patient information leaflet
- Clinical data collection form
- Pain management plan in discharge summary

Figure 1: Driver Diagram: Well Managed Pain
The problem
There was no information regarding referral patterns for pain management and therefore whether the correct resources were available to people with complex pain needs.

The evidence
An audit of pain scores and satisfaction with pain management across CM Health wards indicated the majority of patients were satisfied with pain care. An algorithm using hospital service data identified people taking neuromodulating and opiate medication. A review of medical records was conducted to identify people with severe pain. This was compared to the patient list being seen by the Acute Pain Service. The majority of patients identified by the algorithm were already known to the APS.

The change idea
The existing referral process for the APS identified patients with complex pain. Referral criteria were developed for use for internal screening and to prioritise patients to be seen by the WMP team (Table 1).

Table 1: Referral criteria

<table>
<thead>
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<th>Inclusion:</th>
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<tr>
<td>» Inpatient; and</td>
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<tr>
<td>» Severe pain (greater than 5/10 at rest); and</td>
</tr>
<tr>
<td>» Pain has not responded to charted medication; and</td>
</tr>
<tr>
<td>» More than two admissions in the last six months with pain as a documented clinical issue; or</td>
</tr>
<tr>
<td>» known recurrent admissions with pain related to condition (e.g. Crohn's disease); or</td>
</tr>
<tr>
<td>» pain described as interfering with patient treatment (e.g. engagement in physiotherapy); or</td>
</tr>
<tr>
<td>» pain preventing discharge; or</td>
</tr>
<tr>
<td>» significant emotional distress or behavioural disturbance associated with pain.</td>
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If under palliative care team:
> Discuss with primary care team regarding plan and support of plan

If infant or paediatric:
> Discuss with primary care team regarding plan and support of plan
> Provide consultation to appropriate services
> Be aware of need for specialist paediatric pain management knowledge
The outcome

Using one point of referral to pain services was clearer for referrers and ensured appropriate cover during the days of the week that the WMP team were not available.

There was one ward (Older Adult Assessment, Treatment and Rehabilitation ward) which had frequent admissions with complex pain but did not refer to the APS. The WMP contacted senior staff at this ward to introduce the service.

The lessons learned

Demand for the service was variable and at times the appropriate referrals needed to be triaged stringently to allow sufficient time per patient to support the intensive assessment process.
The problem

Patients who experience complex pain that doesn't resolve as expected are typically very distressed. They require time-consuming assessments and interventions, and often experience extended hospital stays. Trying to care for these patients using an acute pain framework is not effective. When patients are not cared for within an appropriate framework, their needs can be overlooked or unmet due to a lack of resources. This can result in a negative patient experience.

Clinicians in the APS recognised that a small but significant subset of their patient population required more care than the APS could provide. The needs of these patients were not being met, and their experience in hospital was sub-optimal.

The evidence

The introduction of team-based acute pain services over 40 years ago has lessons for improving the care experience of WMP patients. Team-based acute pain services were developed in response to evidence of poor post-operative pain management. A 2002 international review found that utilising the skills of a specialist team to manage the unique needs of postoperative patients improved the patient experience. Postoperative patients cared for by an acute pain service reported less pain than expected after surgery and more satisfaction with care. The key components enabling acute pain services to achieve these outcomes were setting appropriate patient expectations about postoperative pain and providing specialised treatment regimens for pain management.

The change idea

The Well Managed Pain framework was created to meet the needs of patients who could not be cared for adequately by the APS alone. The framework improved patient experience by ensuring that:

» patients had the time and space to express their concerns and receive validation from the team
» patients could develop a trusting relationship with a consistent team
» a consistent message about pain etiology and pain management could be communicated
» patients could be treated in a more holistic way due to the multi-disciplinary approach
» patients could be involved in the development of a plan for their pain management.

These improvements were achieved with two key changes:

» Greater consistency in the patient’s care team. Staff rosters were changed so that all members of the Well Managed Pain team were consistently rostered on WMP days—Mondays and Thursdays each week. This enabled staff to develop trusting relationships with patients and communicate messages about pain etiology and management consistently. It also facilitated the multidisciplinary approach, as all members of the care team were able to be present at the same time for the WMP ward rounds.

» Staff had more time with patients. Well Managed Pain is a ward round, with rosters planned to allow protected time for the multidisciplinary team to see WMP patients on Mondays and Thursdays. There are no additional demands on staff time related to WMP. As a result, patients have the opportunity to talk about their concerns with staff, and to be actively involved in planning how to manage their pain.
The outcome

The Well Managed Pain framework has resulted in a number of improvements in patient experience:

» Anecdotal evidence of patient satisfaction (see p. 21).

» Anecdotal evidence of an increase in staff satisfaction for those working on the APS was also reported. Staff working on the APS reported a reduction in referrals for people with complex needs. Previously these referrals had been associated with staff frustration as the APS did not have the resources to provide intensive assessment.

» A reduction in potential adverse events by better medications management (see p. 20).

» An increase in time between presentations for known high service users (see p. 22).

The lessons learned

» Complex pain is complex to treat. Patients and clinicians alike need time to work through the factors that could be influencing the pain experience. Patients need to feel heard; this can act as a powerful intervention in itself.10

» In order to identify patients suitable for WMP, comprehensive promotion was needed throughout the hospital to ensure staff on all wards were aware that the WMP service was available. A referral system was established using the existing referral process to the APS.

» It was difficult to get any standardised measure of patient satisfaction due to the complexities of a busy tertiary hospital and a part-time service (see p. 21).

» Unexpectedly, there was a lesson learned around staff satisfaction. This was not included in the list of measures for this pilot, but anecdotally WMP staff reported that through taking more time with each patient, they experienced an increase in work satisfaction.

Table 2: Patient and staff descriptors of pain and the pain care experience before and after WMP involvement

<table>
<thead>
<tr>
<th>Before WMP</th>
<th>After WMP</th>
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<tr>
<td><strong>Patient:</strong></td>
<td><strong>Patient:</strong></td>
</tr>
<tr>
<td>1. excruciating</td>
<td>1. more in control</td>
</tr>
<tr>
<td>2. don’t want that ever again</td>
<td>2. everything was well explained</td>
</tr>
<tr>
<td>3. out of control</td>
<td>3. ready for home</td>
</tr>
<tr>
<td>4. wasn’t sure what was happening</td>
<td></td>
</tr>
<tr>
<td><strong>Charge Nurse:</strong></td>
<td><strong>Charge Nurse:</strong></td>
</tr>
<tr>
<td>1. staff not coping</td>
<td>1. more controlled</td>
</tr>
<tr>
<td>2. out of control</td>
<td>2. no more stress</td>
</tr>
<tr>
<td>3. high stress of nurses and patient</td>
<td>3. nurses relaxed</td>
</tr>
</tbody>
</table>
The problem

The experience of chronic or unresolved pain can be overwhelming, with a wide-ranging impact on a person’s life. It cannot be effectively addressed by a single discipline.

Knowledge of the etiology and management of complex pain continues to evolve. Unfortunately, this evolving knowledge has not necessarily translated into services available for the management of complex pain patients in different contexts.

Prior to WMP, multidisciplinary services provided by Middlemore Hospital for chronic pain were restricted to an outpatient service and a palliative care service. However, inpatients with chronic pain also needed a multidisciplinary approach to pain management.

The evidence

There is consistent evidence for the use of a multidisciplinary team approach in the treatment of chronic pain.\(^{11,12}\) Specifically, there is evidence that the collaboration of a physician and pharmacist in the management of pain in an inpatient context can optimise outcomes and manage risk.\(^{13}\)

The change idea

A multidisciplinary approach is at the core of the Well Managed Pain approach. The WMP team is made up of a pain physician, clinical pharmacist, pain clinical nurse specialist and a psychologist. While all of the team are experts in the management of pain, each contributes a different focus:

- The medical specialist considers medical diagnosis and treatment of all of the patients conditions.
- The pharmacist considers prescribed medications, interactions and introduction and weaning schedules.
- The nurse specialist considers ward management issues and coordination of care.
- The psychologist considers adjustment and coping strategies.

Combining these disciplines allows the patients to receive a more holistic approach to care, assessment and pain management plans. The multidisciplinary approach covers appropriate assessment, treatment and documentation.

1. Multidisciplinary team (MDT) assessment
   All members of the WMP team perform the ward round and visit each patient together. This improves communication among the team and the consistency of the message being given to the patient.

2. Optimising medication
   Over 50% of patients with complex pain at Middlemore Hospital are taking inappropriate medications. The WMP team pharmacist, anaesthetist and nurse specialist jointly review each WMP patient’s pharmaceutical regime to optimise their medications.

3. Liaise with primary admitting team
   The WMP team work closely with the patient’s primary admitting physician on the ward. Recommendations from the team’s MDT assessment are placed in the patient’s notes for action by the primary admitting physician. Occasionally, changes are made to the patient’s medication regime directly by the WMP team. These are entered into the patient’s notes for clear communication with the primary admitting physician.
4. Liaise with primary care
The WMP team liaise with the patient’s primary care provider through a phone call to the patient’s general practitioner or through notes in the patient’s discharge summary.

5. MDT pain management plan
The WMP team produce a pain management plan for each patient. The plan is entered in the patient’s file, with clear review dates and modifications as required. It guides other physicians to ensure that patients with complex pain are treated consistently. Once stabilised, the plan can be entered into the discharge summary to be given to the patient and his or her GP, the patient’s notes for clear communication with the primary admitting physician.

Succession/back up planning has also been an important consideration for when clinicians are away, or move on to another role. In each role alternate staff are available.

Documentation was extensive initially for the purposes of data gathering. Once a model of care was established documentation has been minimised and utilised existing organisational guidelines.

The outcome
The WMP multidisciplinary team has enabled a much more holistic approach to assessment and treatment plans for patients with complex pain. It improves communication and enables patients to be given more appropriate and consistent care.
The problem
Discharge from hospital occurs when the patient is medically stable. At this point, patients may be early in their rehabilitation process and there may still be significant pain. Therefore, patients require a plan for pain management at the point of discharge.

Medications used for management of severe or acute pain are often high risk for long term use. Setting patient expectations for the safe withdrawal of high risk medications and the potential introduction of more suitable long term medication for pain management is important.

An audit of previous CM Health discharge summaries identified only one in 50 clearly documented a plan for pain medications for home discharge where patients were on multiple medications that would normally be used for the treatment of pain.14

The evidence
Prescribed pain medications have been identified as significant drugs of abuse internationally with increased risk of death.15 Best practice recommends stringent guidelines and restricted prescribing of high risk medications.16 In New Zealand, secondary care practitioners are most likely to be responsible for prescribing these high risk medications. Therefore there is a need to set patient expectations and support primary care to stop high risk medications after discharge from hospital.

The change idea
Consistent, co-ordinated care is an important part of managing complex or chronic pain. The Well Managed Pain MDT pain management plan plays an important role in ensuring consistency of care. The plan is documented in discharge summaries to improve co-ordination of care with the patient’s primary care practitioner, as well as being available to secondary care practitioners in the patient’s clinical file.

As patients with complex pain are typically high uses of hospital services, communication and the establishment of management plans is implemented as necessary with various departments such as Emergency Care for unexpected admissions, or surgical departments for planned re-admissions.

In addition, members of the WMP team liaise with a number of community services, such as Community Alcohol and Drug Services, the Chronic Pain Service, and GPs.

Patient education is an essential component of an effective transition from inpatient to outpatient services. All WMP patients receive information and advice from the WMP team about their pain medication regimen. If necessary, the WMP pharmacist provides additional pre-discharge patient education. Discharging physicians are notified to call the WMP pharmacist prior to patient discharge in cases where this is needed.

The outcome
Information and advice was consistently provided to all 150 patients seen by the WMP team to ensure each patient had a clear understanding of their medication regimen.

Primary care was contacted in 84% of the cases seen by the WMP team. This contact is an essential component of an effective transition of care.

The lessons learned
For a small number of patients who were re-admitted several times, there needed to be clear differentiation of the most recent pain management plan. There were occurrences where an outdated pain management plan was used, resulting in less effective treatment and frustration for the patient.
In its first year, the WMP team assessed 150 new patients and met its goal of completing multidisciplinary assessment for 100% of referred patients within four days.

Figure 2 shows the percentage of patients who received seven identified interventions following the WMP multidisciplinary assessment:

- Procedural interventions
- Medications stopped due to risk of harm
- Referral to another service
- Communication with primary care
- Rationalisation of medication
- Advice and patient information
- Development of a pain management plan

A brief discussion of these are included under headings below.

**Safe, rational pain management plans**

All patients referred to WMP had a pain management plan put in place (Figure 2).
Minimising harm from medication

A major aim of the WMP initiative was to minimise harm from medication. A high percentage of patients had medications rationalised or stopped to prevent harm (Figure 2).

Rationalisation of medication often results in a reduction in the number of pills a patient is taking. This has the flow-on effect of reducing pharmacy costs. Most patients with complex pain consume a cocktail of drugs, as clinicians layer multiple medications to treat their pain. By optimising prescribing, pharmacy costs are reduced.

Two patients from the group with chronic pain who had been seen repeatedly by the WMP team were selected for detailed analysis as they had multiple admissions. Figure 3 is a summary of the total pharmacy costs for these two patients. Pharmacy costs for these two patients declined from an average monthly cost of $2365 before referral to WMP to $568 after referral.

Figure 3: Pharmacy costs for two patients pre- and post-WMP input
Improving patient and whaanau (family) experience

The measurement of patient satisfaction proved challenging. The WMP team initially attempted to use an internationally recognised standardised measure. Unfortunately, this proved lengthy to complete and the language was complex.

Next, the team tried a verbal assessment of satisfaction using three descriptive words. Patients found this difficult to understand. In addition, there was potential bias because a member of the team was involved in eliciting the answer. Timing the verbal assessment was also a challenge, as discharge is often a busy time when multiple staff members want to complete discharge assessments and processes.

In response to these problems, patients were given a simplified measure and a pre-addressed envelope on discharge that they could complete at home and post back to the team. However, there was a very low return rate.

WMP did not successfully implement a robust, scientifically valid measure of patient satisfaction. However, anecdotal evidence was gathered in a number of ways.

A small sample of patients were contacted by telephone as a planned part of their discharge. Of these, most reported feeling very confident about their pain management and with the GP as the first point of contact.

Patient stories were collected to explore the patient experience of WMP. Two of these stories are reported in this guide (p. 25 and 26).

The number of days spent in hospital is also a potential indicator of patient experience and satisfaction with care. A case study of a patient’s reduction in readmissions under WMP is shown in Figure 4 (p. 22).

Improving discharge processes and communication with other services

Referral to other services and communication with primary care were frequent interventions (Figure 2, p. 19). Primary care was contacted upon discharge for 84% of patients.

An MDT pain management plan was created for each patient and made available in the patient’s file and discharge summary. This has improved communication among services, ensuring more consistent care for patients throughout the care journey.

The WMP project has also strengthened communication between inpatient and outpatient services via clinical staff working within both teams and identified clinicians for case conferences as needed.

In addition, the WMP collaborative team has shared information and provided education to ward teams and senior staff about the roles of each pain team. Ward staff have been particularly interested in learning about clinical approaches for managing pain and distressed behaviour.
Reducing readmissions to hospital

The majority of WMP patients with difficult-to-treat acute pain were not expected to be readmitted. However, a major aim of the WMP initiative was to reduce the frequency and length of admissions for WMP patients with chronic pain. This benefits patients with chronic pain by improving their quality of life and reducing the time they spend in hospital. It also benefits CM Health by saving on costs associated with inpatient bed days.

Improved patient quality of life

WMP supports patients with chronic pain to move from a reliance on hospital admissions to being better able to manage pain at home with coordinated support from community services.

Patient A represents a case study of this change. Patient A has chronic pain and has been an inpatient at Middlemore Hospital many times, including admissions for life-threatening medication-related harm. In the eight months prior to WMP input, Patient A had 10 admissions and spent 35% of her time in hospital. In the eight months following her referral to WMP, she had five admissions and spent 14% of her time in hospital. Figure 4 shows Patient A’s reduced frequency and length of admissions following referral to WMP, and Figure 5 shows the increase in days between her hospital admissions.

Involvement with WMP, and improved liaison with primary care and the Chronic Pain Service, has allowed this patient to better manage her pain at home.

Figure 4: Reduction in Patient A’s readmissions to hospital following referral to WMP
Cost savings to CM Health

Figure 6 represents outcomes for all patients seen by WMP (n=18) who received care under the Chronic Pain Service for the nine months before and after the WMP initiative started.

An established measure was used to estimate the reduction in length of hospital stay for patients under WMP based on interventions to reduce the risk of harm. Davis et al. classify interventions on a grade from one to five based on the change in clinical outcome for the patient as a result of the intervention. Grade Five interventions—those which prevent serious harm or death—are associated with a reduction in length of stay of seven days. WMP used a conservative estimate of three bed days saved by 101 interventions. This extrapolates to 303 saved bed days.

Shorter hospital stays save costs for the healthcare provider. Figure 6 compares the average cost per patient per month for patients (n=18) who received care under the Chronic Pain Service for the nine months before and after the WMP initiative started. Prior to the WMP initiative starting, patients with chronic pain cost an average of $6200 per month. After the introduction of WMP, the average cost reduced to $4200. This represents a 32% reduction.
THE FUTURE DIRECTION

The project team have requested funding to implement a permanent Integrated Pain Service within the Department of Anaesthesia and Pain Medicine.

Funding will enable the establishment of a framework for a seamlessly integrated multidisciplinary service for people in Counties Manukau who suffer from pain, with a strong emphasis on wrapping care around patients with complex pain in their home to avoid any unnecessary hospital-based interventions.

Future challenges for the WMP team include sustainability across hospital sites, and staff changes.

Of all approaches to the treatment of chronic pain, none has a stronger evidence basis for efficacy, cost-effectiveness, and lack of iatrogenic complications than interdisciplinary care.17
PATIENT STORY: FRIDAY

Friday was admitted to hospital with right arm weakness, severe pain, and almost complete loss of function. He had already seen a number of health professionals but his arm function continued to deteriorate. Following assessment by the multidisciplinary Well Managed Pain team, he was diagnosed with regional pain syndrome. The WMP team worked with Friday to put a plan in place to improve functionality and reduce pain.

The plan included:

- the use of appropriate medication
- a clear explanation of the cause of pain and that movement would not cause damage or permanent disability
- active involvement with the physiotherapy team
- follow-up at the Chronic Pain Service to ensure these interventions were being maintained and that Friday had the opportunity to ask further questions.

Friday has gained almost complete return of function in his arm. During follow-up with the Chronic Pain Service, Friday reported that his pain is still there but is much more manageable. He is now able to enjoy quality time with his family and has returned to work.

“I had hope that I would get better. The Well Managed Pain team answered my prayers. I am really happy that I can move my arm again.”

Friday, WMP patient
PATIENT STORY: JOSEPH

Joseph is a 35-year-old Samoan man. He was admitted to EC in the early hours of the 5th September with an abdominal aortic aneurysm. Prior to this admission, Joseph was a fit and healthy young man with an active lifestyle.

Joseph’s memory of the early weeks after his admission is sparse, as he spent three weeks in an induced coma. He recalls, “I had an abdominal aortic aneurysm that ruptured. As a consequence, I lost function in my liver and my kidney. I had fasciotomies on both legs and lost muscle in my left leg. Apparently [I also] had a heart attack in the process.”

Joseph describes feeling shocked when he woke up to find the changes to his body. “It was just a bit of a shock … first there was a colostomy bag and I didn’t know what that was. Then having to see my legs the way they were and not being able to move them … my initial reaction was shock.”

The Well Managed Pain team was introduced to Joseph after he woke up and began to experience pins and needles in his feet and shooting pains from his heel up to his knee.

In the weeks after Joseph woke up, he was still very drowsy due to the medication he was on and relied on his wife to interact with medical teams.

He said his wife was very grateful for the WMP team, particularly for the time they took explaining the medication. “Pain was the biggest thing she was worried about at that time and yeah, she was really happy with having things explained to her. At the time I think I was taking about 50 pills a day, and half of them were for pain management. So it was good to know what does what.” The support of the WMP team was invaluable. “It really gave her peace of mind, it comforted her to know there were people who could help her get through it.”

Once Joseph started coming off some of his medications and was experiencing less drowsiness, he began to become more involved in his care and pain management. The support he found most helpful was around information about the pain. “Me and my wife are really practical people and we just wanted to know what we could do about the pain and how the pain works and that’s what we appreciated the most,” he says. He reported feeling empowered by getting this information. “Yeah, understanding why I am experiencing this pain and knowing I could get over it definitely made it a lot more manageable mentally and gave me a lot more confidence.”

Joseph was in hospital for five months. The WMP team saw him seven times. As a result of those visits, three medications were stopped and four medications were started, with 13 adjustments made over time. The WMP psychologist saw Joseph and his wife on a number of occasions as well. These sessions were very practical with a focus on communication, adjustment to role changes and management of expectations around pain relief behaviours. Joseph has done exceptionally well in the rehabilitation ward and says that his pain is now well managed.
Well Managed Pain Team

Frances James  -  Clinical Lead and Clinical Psychologist, Anaesthesia and Pain Medicine
Melissa Aubroeck  -  Patient Advisor
Adrienne Batterton  -  Clinical Nurse Specialist
Gillian Cossey  -  General Manager, Surgical Services and Ambulatory Care
Terri England  -  Service Manager, Anaesthesia and Pain Medicine
Leah Hodgkinson  -  Pharmacist
Claire O’Donovan  -  Health Psychologist
Alister Ramachandran  -  Anaesthetic Fellow
Helen Hanna  -  Charge Nurse Manager
Linda Huggins  -  Palliative Care Specialist
Kishor Kanji  -  Anaesthetist
Bronwyn King  -  Charge Nurse Manager
Doreen Liow  -  Pharmacist
Helen Liley  -  General Practitioner (GP), GP Liaison
Jacqueline Schmidt-Busby / Stephen Ayliffe  -  Project Managers
Ian Hutchby  -  Improvement Advisor

Back row (from left): Dr Kishor Kanji, Claire O’Donovan, Frances James, Leah Hodgkinson. Front row: Adrienne Batterton
14. James F. Audit of patient (over 16 years) discharged from medical wards in December 2012 with LOS over 5 days [internal audit]. Auckland: Counties Manukau Health; 2013.