



# MIDCENTRAL DISTRICT HEALTH BOARD

*Te Pae Hauora o Ruahine o Tararua*

26 January 2022

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Dear Andrew

## Official Information Act (OIA) Request

As you are aware, your OIA request of 25 November 2021 was transferred to District Health Boards by the Ministry of Health under section 14(b)(ii) of the Official Information Act. This transfer is acknowledged and the OIA has been forwarded on to me for response.

The following information is provided as it pertains to MidCentral District Health Board (MDHB).

- **Guidelines/procedure for the management of postoperative Urinary Retention (POUR).**

MDHB has a clinical guideline which is used across all specialty areas that refers to the management of Urinary Retention. Please find attached a copy of the document MDHB-5989: **Clinical Guideline – Urology Pathways for ED**

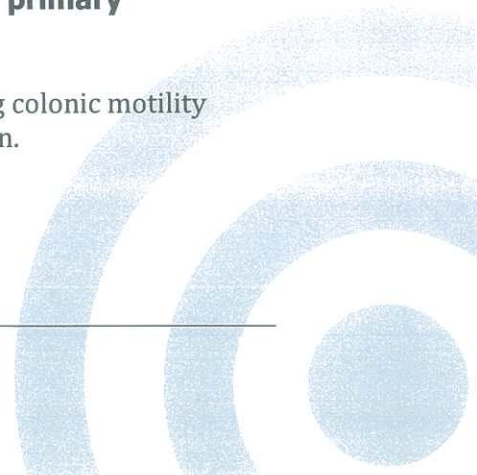
- **Guidelines/procedure for the management/prevention of persistent Postsurgical Pain.**

Please find attached the following documents that are used across MDHB;

- MDHB-147: **Clinical Guideline – Pain Management in Adults**
- MDHB-4184: **Clinical Guideline – Pain, Acute: Pharmacological Management in Adults**
- MDHB-1408: **Guideline – Post-operative Care: General Surgical Procedures**

- **Guidelines/procedure differentiating subtypes of primary (idiopathic) constipation.**

MDHB does not have a specific guideline for investigating colonic motility dysfunction/defecatory disorders or anorectal dysfunction.



- **Guidelines/procedure in the treatment of patients after a suicide attempt and/or suicidal ideation.**

Please find attached the following documents;

- MDHB-7326: **Policy - Suicide Risk Assessment - Emergency Department**
- MDHB-5224: **Emergency Department Suicide Risk Assessment**

The policy document makes reference to the publication **Preventing suicide: Guidance for emergency departments** which was issued by the Ministry of Health in April 2016. The development of the suicide risk assessment form was based on this guidance.

Please note that this response, or an edited version of this response, may be published on the MidCentral DHB website 10 working days after your receipt of this response.

Yours sincerely



Lyn Horgan  
**Operations Executive**  
**Acute & Elective Specialist Services**

Encl

## CLINICAL GUIDELINE

UROLOGY PATHWAYS FOR ED	
Applicable to: <b>Urology/ED</b>	Issued by: <b>Urology</b>
	Contact: <b>Urologist</b>

### UROLOGY PATHWAYS

Contained within are pathways for common urological presentations to the Emergency Department and include guidelines on urinary catheters. They are intended to provide guidance in accordance with modern urological thinking on initial management, as well as outlining which patients require acute admission and outpatient follow-up. Every patient and scenario is different and they are not intended to replace good clinical judgment:

- Acute Scrotal Pain
- Guidelines on Urinary Catheters
- Haematuria
- Renal Colic
- Urinary Retention
- Urosepsis

These guidelines have been prepared and approved by the Department of Urology in consultation with the Emergency Department, for use at Palmerston North Hospital.

#### APPENDICES

<a href="#">Appendix 1</a>	Acute Scrotal Pain
<a href="#">Appendix 2</a>	Guidelines on Urinary Catheters
<a href="#">Appendix 3</a>	Haematuria
<a href="#">Appendix 4</a>	Renal Colic
<a href="#">Appendix 5</a>	Urinary Retention
<a href="#">Appendix 6</a>	Urosepsis

#### KEYWORDS

Urology Pathways, Acute Scrotal Pain, Guidelines on Urinary Catheters, Haematuria, Renal Colic, Urinary Retention, Urosepsis



## ACUTE SCROTAL PAIN

### Considerations

- Testicular torsion is a urological emergency (viability decreases dramatically after 6 hours).
- Testicular torsion is a clinical, not a radiological, diagnosis.
- Scrotal pain has a wide differential diagnosis, including referred abdominal complaints.
- Incidence of testicular torsion decreases dramatically after age 30 years.
- A significant number of cases of epididymitis are associated with Chlamydia and Gonorrhoea.

### Pathway for the patient with suspected testicular torsion

#### Triage category

- 2 – patient requires medical assessment within 10 minutes

#### Assessment

- Dipstick urine and send away (an abnormal urine suggests an alternate diagnosis)
- Obtain history:
  - ❖ Features suggestive of torsion: acute onset pain  
severe/worsening pain  
nausea and vomiting
  - ❖ Features suggesting alternate pathology: infective symptoms  
resolving pain  
recent STI or UTI  
high-risk sexual behaviours
- Perform physical examination of abdomen and scrotum:
  - ❖ Features suggestive of torsion: global testicular pain/swelling  
elevated testicular lie
  - ❖ Features suggesting alternate pathology: focal tenderness/swelling  
fever  
scrotal wall abnormalities (red, hot)  
normal cremasteric reflex
- If there is clinical suspicion of torsion, **urgent urological opinion is mandated** phone on call Urology Registrar on cellphone 027 497 0750.
- Keep patient nil by mouth and administer analgesia

### Imaging

- Scrotal ultrasound delays definitive management of testicular torsion.
- Ultrasound should not be requested routinely, nor before discussion with Urology.
- Testicular trauma: ultrasound is mandatory if testicular rupture is suspected.

### Management of epididymo-orchitis

- Send swabs and urine for Chlamydia and Gonorrhoea.
- Ciprofloxacin 500 mg bd po for 2 weeks – if thought to be non STI related (ie older men).
- If at risk for STI – Azithromycin 1 g po stat, Ceftriaxone 1 g IV stat, and DC on 10 days of Doxycycline 100 mg BD Admission criteria: patients should be referred for admission in the presence of sepsis and an ultrasound performed if a scrotal abscess is suspected.

*Note: This pathway is not intended to replace good clinical judgment.*



## GUIDELINES ON URINARY CATHETERS

### Important notes

- **Never** pass or replace a catheter in a man who has undergone radical prostatectomy in the preceding three weeks – this situation **always** warrants urological expertise.
- **Always** replace the foreskin after male catheterisation: failure will lead to paraphimosis.

### Standard catheterisation technique

- Prepare skin with aqueous Chlorhexidine solution.
- Prepare urethra with 10 mL Lignocaine 2% gel instilled slowly.
- Place 16 G Fr catheter – using aseptic technique. Right hand clean: left hand dirty.
- Always insert catheter to the hilt and don't inflate balloon until urine is draining.
- Fill balloon with 10 mL sterile water.
- Beware inflating catheter in urethra: check it slides freely after inflating.

### Useful tips for difficult male catheterisation

- Note the urethral level where obstruction to catheter passage seems to occur.
- Is there any relevant history, such as urethral stricture or bladder neck contracture?
- Suggestions, based on site of difficulty passing catheter:
  - ❖ Prostatic urethra: try a larger catheter, such as 18 G Fr or 20 G Fr;
  - ❖ Penile urethra (suspect stricture): try a smaller catheter, such as 12 G Fr or 14 G Fr.
- After **two unsuccessful attempts**, obtain help from senior ED registrar or ED consultant.
- If urethral catheterisation is not achieved, place suprapubic catheter, if expertise is available (Consult Urology Registrar at this point).

### Useful tips for difficult female catheterisation

- This is almost always due to difficulty in locating the external meatus.
- True urethral obstruction is exceedingly rare in women.
- Suggestions:
  - ❖ Ensure lighting and patient positioning (frog-leg) is optimal;
  - ❖ Use a single arm of a disposable vaginal speculum to retract labia;
  - ❖ In post-menopausal women, the meatus may migrate posteriorly into the vaginal introitus. It may not be possible to visualise, but a catheter can be guided into position over the index finger.

## IMPORTANT PRINCIPLES

### Suprapubic catheterisation (SPC)

- **Never** place an SPC unless the bladder is full: confirm with an ultrasound if possible.
- Exclude coagulopathy. Beware of mesh hernia repairs and lower abdominal surgery.
- **Always** aspirate urine with a needle prior to placing trocar.
- Ultrasound is mandatory with previous lower abdominal, pelvic or vascular surgery.
- **Avoid** placing an SPC if there is a history or suspicion of bladder cancer.
- **Do not use** Bonanno catheters.

## HAEMATURIA

### Considerations

- Most patients with haematuria can be reassured and be subsequently managed in an outpatient setting.
- Haematuria can herald serious underlying pathology and should never be ignored, even in the anticoagulated patient.

### Pathway for the patient presenting with haematuria

#### Microscopic

- Obtain MSU.
- Complete yellow referral form and fax to Urology Clinic (fax 8641).

#### Macroscopic

- Collect blood for FBC and creatinine.
- Fluid resuscitation if appropriate (rarely required).
- Admission criteria:
  - ❖ Clot retention (inability to pass urine with preceding gross haematuria);
  - ❖ Haemodynamically significant bleeding;
  - ❖ Anaemia requiring transfusion or likely to in short-term future.
- Patients not meeting admission criteria:
  - ❖ Complete yellow referral form and fax to Urology Clinic (fax 8641);
  - ❖ Advise GP to follow-up if not settled in one week.

### Urethral catheterisation (indicated for all patients in clot retention)

- Discuss with Urology Registrar if patient has had recent Urological intervention.
- Routine catheterisation should not be performed in the absence of urinary retention.
- Clot retention mandates insertion of a indwelling catheter:
  - ❖ Use a 22 G Fr 3-way catheter and instill 30 mL water in the balloon;
  - ❖ Initially manually washout bladder with a catheter-tip syringe until clots are exhausted (haematuria will not settle if clots are left in bladder);
  - ❖ Connect continuous bladder irrigation with sterile saline and titrate rate until the irrigation effluent is a light rosé colour;
  - ❖ Phone on call Urology Registrar on cellphone 027 497 0750 to discuss inpatient admission.

*Note: This pathway is not intended to replace good clinical judgment.*



## RENAL COLIC

### Considerations

- Loin pain is not automatically renal colic and is not diagnostic of urinary tract stone disease until proven on CT KUB.
- Consider serious alternative pathology, such as AAA, ectopic pregnancy and appendicitis, all of which are commonly misdiagnosed as renal colic.
- The majority of patients presenting with stones can be managed conservatively on an outpatient basis and will never require operative intervention. Over 90% of stones <10 mm will pass spontaneously.
- Plain abdominal x-ray (KUB) is not a diagnostic study (follow-up only).
- NSAIDs provide the best analgesia in renal colic (Voltaren).
- Expulsive therapy. Doxazosin improves spontaneous stone passage rates by 20%. Tamsulosin has less side effects but will cost the patient approx \$28 for one month's supply from the Pharmacy in the hospital foyer.
- Stone disease in the presence of sepsis or a solitary kidney is a urological emergency.

### Pathway for the suspected urinary tract stone

#### Initially

- Test urine – if negative for blood, much less likely to be renal colic.
- Request CT KUB (plain film is important for follow-up purposes):
  - ❖ In the absence of sepsis, patients presenting to ED overnight can be managed conservatively and await imaging in the morning;
  - ❖ In pregnancy, perform an ultrasound.
- Collect blood for creatinine.
- Obtain MSU.
- Prescribe (if not contraindications):
  - ❖ Doxazosin 4 mg po (beware of postural hypotension) or Tamsulosin 0.4 mg po od;  
**NB: modify dose if elderly, cardiac disease or already taking antihypertensives;** and
  - ❖ Paracetamol 1 g po; **and**
  - ❖ Diclofenac 100 mg po/pr (dose reduce in renal impairment);
  - ❖ Opioid analgesia if required (oral route preferred): avoid as first line.

On confirmation of stone by CT KUB:

#### Patients suitable for conservative management

- Manage in ED if pain not settled or settling. At 3 hrs call on call Urology Registrar on cellphone 027 497 0750.
- Discharge when comfortable with outpatient follow-up and analgesia:
  - ❖ Complete yellow referral form and fax to Urology Clinic (fax 8641);
  - ❖ Prescription for Doxazosin 4 mg daily po or Tamsulosin 400 mcg nocte for 6 weeks, Paracetamol 1 g qid po and Diclofenac 50 mg tds po prn (if no contraindications).

#### Patients mandating urological referral (phone on call Urology Registrar on cellphone 027 497 0750)

- Sepsis.
- Discuss if creatinine elevated.



- Infected obstructed collecting system.
- Patient with a functional single kidney or significant renal impairment.
- Unremitting pain after three hours of conservative management in ED.
- Patients presenting to ED for the third time for the same stone presentation.
- On discharge advise patients to sieve urine with the strainer (if they can catch stone further radiation may be necessary and stone can be sent for analysis).
- Advise to obtain thermometer and to seek further advice if they have “the pain **and** a temperature (the combination of obstruction and infection is a urological emergency).

*Note: This pathway is not intended to replace good clinical judgment.*



## URINARY RETENTION

### Considerations

- Patients requiring catheterisation usually require urological follow-up.
- Urinary retention associated with renal failure can lead to a post-obstructive diuresis, a potentially life-threatening scenario.
- It is vital to record the initial volume drained. There is no role for clamping and releasing catheter.

### Pathway for the patient presenting with urinary retention

- Confirm diagnosis (palpation of distended bladder or bladder scan)
- If retention has been preceded by gross haematuria, see Haematuria pathway
- Place at least a 16 G Fr urethral catheter (see Guideline on Urinary Catheters pathway)
- Allow bladder to empty and record volume drained
- Send clean catch urine for microscopy, culture and sensitivities
- Collect blood for creatinine
- If creatinine is normal, discharge (see below)
- If creatinine is abnormal, observe patient for two hours:
  - ❖ if urine output, after initial drainage, is > 200 mL per hour, commence treatment for post-obstructive diuresis – see below and phone on call Urology Registrar on cellphone 027 497 0750 to arrange admission);
  - ❖ if urine output, after initial drainage, is < 200 mL per hour, encourage oral fluid intake, discharge patient and arrange repeat creatinine in 2 to 3 days with GP.

### Management protocol for post-obstructive diuresis

- Weigh the patient as a baseline.
- Prescribe intravenous fluid replacement at a rate of mL for mL urine output per hour.
- Urine needs hourly measurement and the IV fluid rate adjusted accordingly by nursing staff.
- Use alternate one litre bags of Normal Saline and Dextrose 4% Saline.

### Discharging a patient who is catheterised

- Supply patient with night bag and give catheter education.
- Complete District Nursing referral: a District Nurse should attend the next day.
- Complete yellow referral form and fax to Urology Clinic (fax 8641).
- Include on the form the initial volume drained and the serum creatinine level.

*Note: This pathway is not intended to replace good clinical judgment.*

## UROSEPSIS

### Considerations

- Urosepsis is a serious condition and should be aggressively managed. It has a significant mortality.
- Gram negative organisms account for 90% of sepsis but Enterococci (which are inherently resistant to cephalosporins) account for the remaining 10%.
- Urosepsis in the presence of obstruction in the urinary tract requires urgent decompression.
- Patients with urosepsis and flank pain require urgent imaging.

### Pathway for the patient with urosepsis

- Have a low threshold for suspecting urosepsis for any patient who is febrile or describes rigors and meets one of the Urology referral criteria (see below).
- Obtain intravenous access with a good sized cannula.
- Collect blood for FBC, urea, electrolytes, creatinine and culture.
- Commence intravenous fluid resuscitation, as appropriate.
- Obtain MSU (culture urine from catheter or nephrostomy if appropriate).
- Commence empiric antibiotics (see below).
- If flank pain is a feature, or obstruction is suspected obtain urgent CT KUB to exclude obstruction.
- Refer the patient to an appropriate inpatient specialty (see below).

Attempt to obtain urine and blood cultures prior to antibiotic therapy, but do **not** delay administration of antibiotics if the patient is unable to provide a urine sample.

### Empiric antibiotic treatment (intravenous)

- Gentamicin 5 mg/kg q24h **AND** Amoxicillin 1 g q8h. Do not repeat without levels.
- In penicillin allergy: Gentamicin 5 mg/kg q24h **AND** Vancomycin (see MDHB-3807 for dosing).
- In renal failure (eGFR < 20mL/min): Ceftriaxone 1 g q24h **AND** Amoxicillin 1 g q8h.

### Urology referral criteria

The following patients with urosepsis should be referred to the Urology Service. The list is not exhaustive. Ask if in doubt:

- Any patient who has recently had urological surgery or undergone a urological procedure (within approximately 10 days – discuss if unsure).
- Post-TRUS prostate biopsy.
- Any patient with a reconstructed lower urinary tract or urinary diversion (such as ileal conduit/urostomy or orthotopic neobladder).
- Any patient with a known ureteric stone.
- Any patient with a spinal injury.
- Any patient with a JJ stent or a nephrostomy tube in situ.
- Any patient also presenting in urinary retention.
- Any patient with a significant urological history (discuss if unsure).

Patients not falling into the above categories should generally be referred to the Medical Service. If there is uncertainty, phone the on call Urology Registrar on cellphone 027 497 0750 to discuss.



## CLINICAL GUIDELINE

### PAIN MANAGEMENT IN ADULTS

Applicable to: **MidCentral District Health Board**

Issued by: **Anaesthetics**

Contact: **Nurse Practitioner - Pain Management**

#### 1. PURPOSE

To ensure timely, appropriate and effective pain management for all adult patients.

#### 2. SCOPE

All MDHB staff involved in the provision of direct patient care.

#### 3. ROLES & RESPONSIBILITIES

##### 3.1 All Clinical Staff are responsible for:

- Assessment and evaluation of patients level of comfort following intervention utilising a patient appropriate 0-10 visual/numerical pain intensity assessment scale/tool. For patients who are unable to articulate their needs through verbal impairment/language barrier/intellectual disability please utilise the appropriate recommended assessment tool.
- Communicating/educating patients/family/whānau in a culturally competent manner regarding appropriate expectations for pain management.
- Seeking and utilising all available resources to develop individualised pain management plans in partnership with the patient/family/whānau.
- Location of pain management policies, procedures, guidelines, protocols, tools and resources

The pain assessment process is to include:

- following the MDHB Pain Management Flow Chart ([Appendix 1](#)).
- implementing appropriate pain management interventions within time frame acceptable to the patient. (Include non-pharmacological/complementary techniques in pain management where appropriate).
- evaluating all pain management interventions utilising a patient appropriate 0-10 visual/numerical pain intensity scale or an assessment tool designed for patients who cannot articulate their pain. (Ensure adequate time frame for intervention to be effective).
- documenting assessment made including patient's pain intensity score, interventions and evaluation, in a clear and concise manner in patient's clinical record. (Include a

pain management plan when pain is identified as focus of care in the patient care plans and review daily).

- consulting with other members of the health care team/pain resource staff when additional information/expertise is required to establish and/or maintain patient comfort.

### 3.2 Charge Nurse in conjunction with the Nurse Educator/ Clinical Nurse Specialist/Nurse Practitioner Pain Management are responsible for:

- providing area specific orientation to all new nursing and medical staff on pain management policies, procedures, guidelines, protocols and resources.
- annual review and update of pain management policies, procedures, guidelines, and protocols specific to their area.
- identification of individual and/or collective staff knowledge deficits and implementation of appropriate education to address identified learning needs.
- facilitation of multidisciplinary meetings to review complex pain management situations and feeding back outcomes to relevant staff.
- facilitation of attendance at MDHB pain management education sessions.

### 3.3 Provision of Services Available at MDHB The Acute Pain Service (APS)

The Palmerston North Hospital Acute Pain Service (APS) functions from the Post Anaesthetic Care Unit (PACU). The service consists of three Acute Pain Clinical Nurse Specialists (CNS) and a Nurse Practitioner (NP) who work collaboratively with the Specialist Anaesthetists, Anaesthetic Registrars, Post Anaesthetic Care Unit Staff, Clinical Pharmacists and the multi-disciplinary team. The Acute Pain Team provide a consultative, educational and monitoring service for inpatients with acute pain. Its primary goal is to ensure safe, timely and effective analgesia consistent with evidence based practice. The APS can be contacted by paging the Acute Pain Clinical Nurse Specialists/Nurse Practitioner on **pager 168** or **via Operating Theatre extension 8500 for the Anaesthetist on call.**

**Criteria for referral:** An APS team member will review patients who are receiving Advanced Analgesia modalities such as PCA or an epidural on an acute pain team round each day.

#### **For an inpatient acute pain specialist review please ensure:**

- 1) A comprehensive pain assessment has been completed on admission and follow the MidCentral District Health Board Clinical Guideline "Pain Management in Adults" MDHB-147 and the "The initial assessment of a patient in acute pain".
- 2) Admitting team are aware of referral
- 3) Pharmacological considerations within scope have been considered
- 4) Non-pharmacological techniques have been tried where appropriate

**For an outpatient acute pain (Telehealth) specialist clinic appointment please follow the below:**

#### **Triage referral for Acute Pain Service Telehealth clinic**

Referral must be completed by nursing/medical personnel.

For patients to be seen as outpatients (Tele Health clinic), please complete 'specialist nursing & allied health referral form; MDHB-2559 and write C for community/outpatients in 'other box and write Acute Pain Telehealth clinic in space provided.



### Criteria to be seen at Acute Pain Telehealth clinic.

**Acute Pain Service CNS/NP must have reviewed patient as an inpatient and must meet two of the following criteria. Please note: The patient will NOT be accepted for Telehealth if a member of the APS team have not reviewed the patient as an inpatient.**

- Acute pain following – surgery / trauma
- Requires Specialist Acute Pain Management advice in the acute period prior to discharge back to PHC team
- Requiring weaning (deprescribing) of opioids and/or other analgesics prior to discharge back to PHC team

If complex conditions or a history of chronic pain please contact the Acute Pain Service on pager 168 to discuss appropriateness of referral. Patients may benefit from referral to Wellington Regional Pain Service.

### Please include the following within your referrals:

- Diagnosis or provisional diagnosis
- A comprehensive pain assessment
- What strategies have been put in place to manage the pain
- Medication/s prescribed and effects
- Relevant investigations.
- What service you are requiring ie: weaning from opioids or gabapentinoids.

## 4. GUIDELINE

See attached Flow Chart

## 5. DEFINITIONS

**"Pain** is whatever the experiencing person says it is, existing whenever the experiencing person says it does."  
McCaffery and Beebe 1989

**"Pain** is an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage'  
International Association for the Study of Pain 2020

## 6. RELATED MDHB DOCUMENTS

MDHB-4184: Pain, Acute: Pharmacological Management in Adults  
MDHB-1034: Adult IV Opioid Protocol for Patients in Pain with Existing IV Access (Including Wāhine in Labour) - Procedure

## 7. APPENDICES

Appendix 1 Adult Pain Management Flow Chart

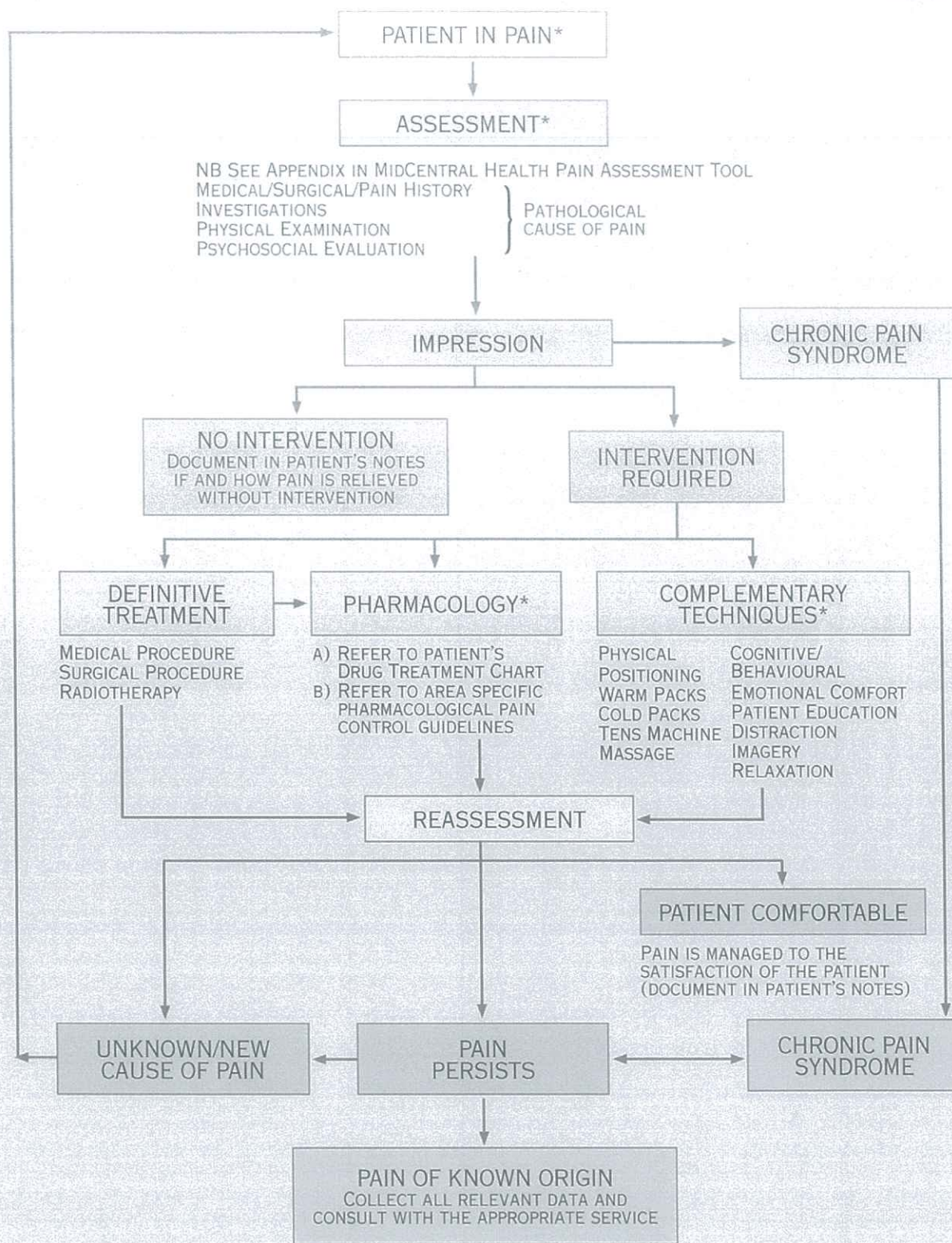
## 8. KEYWORDS

Pain management, Adults, Acute Pain Service



APPENDIX 1

APPENDIX 1:  
MIDCENTRAL HEALTH  
ADULT PAIN MANAGEMENT FLOW CHART



\* LINKS TO MIDCENTRAL HEALTH PAIN MANAGEMENT PROGRAMME FOR NURSES



<b>PAIN, ACUTE: PHARMACOLOGICAL MANAGEMENT IN ADULTS</b>	
Applicable to: <b>MidCentral District Health Board</b>	Issued by: <b>Acute Pain Service – Anaesthetic Department</b>
	Contact: <b>Nurse Practitioner – Pain Management</b>

## 1. PURPOSE

To provide guidance to the clinical staff in the pharmacological management of adult patients experiencing acute pain.

## 2. SCOPE

This guideline refers to the management of patients with an acute onset and painful condition, with an expected recovery from the pain in the short term. This scope includes post-operative surgical patients, trauma patients, and patients with other acute and painful conditions.

## 3. CLINICAL GUIDELINE

### 3.1 The Acute Pain Service (APS)

The Palmerston North Hospital Acute Pain Service (APS) functions from the Post Anaesthetic Care Unit (PACU). The service consists of three Acute Pain Clinical Nurse Specialists and a Nurse Practitioner who work collaboratively with the Specialist Anaesthetists, Anaesthetic Registrars, Post Anaesthetic Care Unit Staff, Clinical Pharmacists and the multi-disciplinary team. The Acute Pain Team provide a consultative, educational and monitoring service for inpatients with acute pain. Its primary goal is to ensure safe, timely and effective analgesia consistent with evidence based practice. The APS can be contacted by paging the Acute Pain Clinical Nurse Specialists/Nurse Practitioner on **pager 168** or **via Operating Theatre extension 8500 for the Anaesthetist on call.**

**Criteria for referral:** An APS team member will review patients who are receiving Advanced Analgesia modalities such as PCA or an epidural on an acute pain team round each day.

#### **For an inpatient acute pain specialist review please ensure:**

- 1) A comprehensive pain assessment has been completed on admission and follow the MidCentral Health Clinical Guideline “Pain Management in Adults” MDHB-147 and the “The initial assessment of a patient in acute pain” **appendix one.**
- 2) Admitting team are aware of referral
- 3) Pharmacological considerations within scope have been considered

- 4) Non-pharmacological techniques have been tried where appropriate  
**For an Outpatient acute pain (Telehealth) specialist clinic appointment please follow the below:**

#### **Triage referral for Acute Pain Service Telehealth clinic**

Referral must be completed by nursing/medical personnel.  
For patients to be seen as outpatients (Tele Health clinic), please complete 'specialist nursing & allied health referral form; MDHB-2559 and write C for community/outpatients in 'other box and write Acute Pain Telehealth clinic in space provided.

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If complex conditions or a history of chronic pain please contact the Acute Pain Service on pager 168 to discuss appropriateness of referral. Patients may benefit from referral to Wellington Regional Pain Service.

#### **Please include the following within your referrals:**

- Diagnosis or provisional diagnosis
- A comprehensive pain assessment (follow the Midcentral Health Clinical Guideline "Pain Management in Adults" MDHB-147)
- What strategies have been put in place to manage the pain
- Medication/s prescribed and effects
- Relevant investigations.
- What service you are requiring ie: weaning from opioids or gabapentinoids.

### **3.2 General Principles of acute pain**

- Acute pain pathways can be pharmacologically modulated at several sites relating to transduction, transmission, endogenous modulation and perception. A multi-modal approach to analgesia is recommended utilising medications that target specific sites in the pain pathway, e.g. an opioid in combination with a non-steroidal anti-inflammatory drug.
- To maximise effectiveness, analgesic medicines must be given at the optimal dosage, at the optimal frequency, and by the optimal route.
  - Small doses given frequently produce effective analgesia with limited side effects in comparison to larger doses given infrequently.



- Regular administration of analgesic medication for acute pain is recommended. The administration of PRN analgesia should be restricted to the management of breakthrough pain.
- Use the oral route of administration whenever possible for mild to moderate pain.
- Intravenous administration of analgesia is recommended in severe acute pain and doses may be titrated to individual response.
- Achieving effective analgesia may also require the assessment and effective management of the side effects of analgesic agents, e.g. nausea and vomiting, constipation, urinary retention, and pruritus and of accompanying symptoms or signs such as dehydration.
- Providing thorough explanation and reassurance to patients and their relatives may also enhance the effectiveness of an analgesic regime. This helps to relieve any anxiety or fear that may lessen the efficacy of the pain relief.
- Non pharmacological pain management strategies should be considered and included as appropriate.

### 3.3 Overview of Analgesia

Patients who are assessed with mild pain (1-3/10 pain intensity) will require simple analgesics. **Analgesics should be administered regularly rather than PRN.** A pyramid approach using the simple analgesics as a base (rather than a 'ladder' or replacement approach is recommended) – combinations are used to gain an additive or synergistic effect, thereby reducing opioid dose, duration of use, and minimising side effects.

Recommended Analgesics for Acute Pain					
Pain Score	Simple Analgesics (e.g. paracetamol, NSAID, Cox-II inhibitors)		Tramadol		Strong Opioids (e.g. morphine)
	PRN	Regular	PRN	Regular	
0-10					Regular or PRN
MILD					
1	✓				
2		✓			
3		✓			
MODERATE					
4		✓			
5		✓	✓	✓	✓
6		✓		✓	✓
SEVERE					
7-10		✓		✓	✓

### 3.4 Simple Analgesics

- Paracetamol is often effective for simple intermittent pain, which does not have a substantial inflammatory component.
- Nonsteroidal anti-inflammatory drugs (NSAIDs) are particularly useful when inflammation contributes to the pain of musculoskeletal disorders.
- Paracetamol can be combined with NSAIDs for synergistic effect.

#### PARACETAMOL

The registered dose of paracetamol PO/PR is 500mg to 1000mg every four to six hours regularly to a maximum dose of 4g/day. This may be inadequate in acute pain, especially in patients >70 kg; short term use (max 48 hours) of paracetamol at 60 mg/kg/day in 4 or 6 divided doses (e.g. 10 mg/kg q4h or 15 mg/kg q6h) may provide better analgesia in such patients ([www.nzf.org.nz](http://www.nzf.org.nz) accessed May 2021).

Paracetamol dosing should be adjusted in the context of liver impairment, proportional to its severity. Please seek advice from APS re details for dosing.

If patient is <50kg then a reduction of dose based on actual body weight is recommended. (15mg/kg q6h, round to nearest 100mg for ease of administration)

#### NON-STEROIDAL ANTI-INFLAMMATORY DRUGS (NSAIDs)

Non-selective cyclooxygenase (COX) inhibitors:

- The main differences, between these NSAIDs are in the incidence and the type of side effects. Selection may be influenced by factors such as route of administration, the patient's age, renal function and previous experiences with particular NSAIDs (see comments below table).

Ibuprofen	Initially 1200 to 1800mg PO daily in three divided doses. Maintenance dose is 600 to 1200mg daily. Maximum total daily dose is 2400mg. For sustained release tablets maintenance of 1.6g daily as a single dose. Preferably in the evening. Maximum total daily dose of 2400mg daily in 2 divided doses for severe cases only.
Diclofenac	PO/PR 75 to 150mg daily in divided doses. Dose is dependent on indication. See NZF Sustained release preparations can be given once or twice daily. Maximum daily dose should not exceed 150mg by any route of administration. <b>Note:</b> IM administration of diclofenac is discouraged because of the associated risk of tissue necrosis and Nicolau syndrome.
Naproxen	Usual dose range 500 to 1000mg daily in divided doses. Dose is dependent on indication. See NZF Sustained release preparations are given once daily.



Selective Cyclo-oxygenase inhibitors (Cox-2 NSAID's)

Parecoxib	For IV: 40mg/day can be used in acute pain, for 48 hours <b>ONLY</b> , Maximum total daily doses up to 80mg (divided 40mg BD) Beware of drug-drug interaction as metabolised by CYP enzyme Relatively contraindicated in patients post coronary artery bypass surgery, ischaemic heart disease, PVD, and moderate/severe heart failure. Caution as per all NSAID's
Celecoxib	Oral dose: 100-200mg BD dependant on indication maximum total daily dose 400mg. Caution as per all NSAID's

- Route of administration:
  - Sustained release preparations should not be used to initiate therapy for acute pain relief due to the slow onset of action. They can however be used for maintenance once comfort is achieved.
  - Suppositories are very well absorbed and should be considered when oral administration of analgesia is not possible.
  - If parenteral administration of an NSAID is warranted then IV Parecoxib can be considered following consultation with an APS, consultant and/or clinical pharmacist.
- NSAIDs should be used at the lowest effective dose for the shortest possible time in order to reduce the risk of adverse effects, particularly gastrointestinal haemorrhage.
- Co-prescribing of a PPI is warranted if given orally on regular basis, especially with sustained release formulation
- Use NSAIDs with caution:
  - In those over age 65
  - Avoid combinations of the following medications classes – can cause renal impairment diuretic, ACE inhibitor, NSAIDs.
  - During pregnancy and breast feeding
  - In patients with cardiac impairment (especially congestive heart failure)
  - In patients with coagulation defects and on anticoagulation therapy, antiplatelet (may increase risk of bleeding in patients on long term anti-coagulation therapy)
  - In patients with hepatic impairment
  - In patients with pre-existing renal impairment (may result in deterioration of renal function therefore use lowest dose possible and monitor renal function)
  - In patients with a history of GI ulceration or bleeding
- Refer to the NZ Formulary for a list of drug interactions, adverse effects, and contraindications of NSAID's.

### 3.5 Tramadol

<p>Tramadol hydrochloride</p>	<p>Moderate to severe pain: 50 to 100mg PO every four hours to a maximum daily dose of 400mg.</p> <p>Elderly &gt;75yo: 50 to 100mg PO every 6 hours up to a maximum of 300mg per day</p> <p>IV: Post-operative pain: Doses of 50 to 100mg every four to six hours to a maximum daily dose of 400mg.</p> <p>Caution if discharging patients on tramadol due to withdrawal side effects. Please consider and consider weaning and liaise with PHC team.</p>
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**Note:** Higher doses outside the registered dose have been used in specific instances, however these are at the discretion of the prescribing consultant and should be reviewed regularly.

- Tramadol is an atypical opioid analgesic because in addition to its weak activity at the mu opioid receptors it also inhibits neuronal noradrenaline and serotonin uptake and enhances serotonin release.
- Tramadol is not as effective as morphine in the treatment of severe pain, although in comparison to other opioids it is less likely to cause opioid-like adverse effects such as constipation, respiratory depression and dependence (*the latter has not been fully evaluated therefore any signs of dependence should be reported*).
- Tramadol may owe its analgesic effect to O-desmethyltramadol (M1), metabolised by the CYP2D6 isoenzyme. This enzyme pathway does not operate in about 5% of the Caucasian population (can be higher in other ethnic groups as it is a genetic polymorphism). Inhibitors (e.g. quinidine, fluoxetine) and substrates (e.g. codeine) of this enzyme could lower concentrations of tramadol's active metabolite and therefore its analgesic effect. Interaction checks can be access through NZF or phone pharmacy.
- Adverse effects: Nausea, dizziness, vomiting, dysphoria (unpleasant light headedness), sweating and dry mouth.
- Tramadol can be used in addition to paracetamol and a NSAID. Used concurrently with other opioids (e.g. codeine, morphine) an increased risk of CNS depression exists. Patients on tramadol and a CNS depressant should be closely monitored for signs of CNS depression (respiratory depression and over sedation).
- Prolonged Tramadol use may result in withdrawal syndrome if discontinued abruptly.
- Precautions and Warnings:
  - Tramadol must not be used for narcotic withdrawal treatment.
  - Tramadol is not suitable as a substitute in opioid-dependent patients.
  - Tramadol has been reported to cause convulsions at therapeutic doses and the risk may be increased at doses exceeding the usual dose limit. Patients



with a history of epilepsy or those susceptible to seizures should only be treated with tramadol if there are no other alternatives. The risk of convulsions may increase in patients taking tramadol and concomitant medication that can lower seizure threshold, e.g. sodium Valporate.

- Tramadol is not recommended for patients with severe renal impairment and/or severe hepatic impairment.
- Refer to recent reference material or call Drug Information (Ext. 8270) for information on the use of tramadol in pregnancy or breastfeeding.

### 3.6 Opioid Analgesics

#### GENERAL POINTS

- Opioid analgesics are used to relieve moderate to severe pain particularly of visceral origin.
- The inter-individual opioid requirements for post-operative pain may vary by a factor of 10 (i.e. for 2 patients who have had the same operation, one might need 5mg of morphine and the other might need 50mg). **Individualised assessment of pain and effectiveness of analgesia administered is vital.**
- Remember to adjust dose of opioids in the elderly, in patients with hepatic or renal impairment and also be aware of drug interactions.
- The various opioids utilised at MidCentral Health share many side effects although qualitative and quantitative differences exist. It is important to note that many of the side effects from opioids are dose rather than drug related. Respiratory depression, over sedation and hypotension are the most serious side effects and patients receiving opioid analgesia must be observed closely. The most frequently reported side effects however include nausea, vomiting, constipation, all of which can and should be managed with effective prescribing of analgesia. (Appendix 2)
- There is synergism of paracetamol or NSAIDs with opioids (opioid dosage requirements can be reduced by 30-50%).
- Some opioids (oxycodone, morphine) comes in a variety of formulations, including immediate and slow release preparations. It is recommended that when prescribing the release characteristics are clearly indicated.

#### DECIDE WHICH OPIOID TO PRESCRIBE

- Prescription of opioid analgesia is contraindicated for patients with airway obstruction, respiratory failure, raised intracranial pressure.
- All full conventional opioid agonists can produce the same level of analgesia once the dose is appropriately adjusted (see table below)
- For most severe acute pain situations the administration of morphine is recommended.
- Renal function:
  - Calculated CrCl >30ml/min: morphine as first line
  - Calculated CrCl 10-30ml/min: oxycodone or fentanyl
  - Calculated CrCl <10/min: fentanyl

- Check for opioid naïve status. Defined as those who have not received opioids in the 30 days prior to the acute event or surgery.
- For conversion between different opioids, see Table 1:

**Table 1: Ratio of Equipotency of Opioid Analgesics\***

Original	Target	Conversion factor	Example
Codeine	Morphine (oral)	0.1	60mg codeine = 6mg po morphine
Tramadol	Morphine (oral)	0.1	50mg Tramadol = 5mg po morphine
morphine (oral)	morphine (IV)	0.3	30mg po morphine = 10mg IV morphine
morphine (oral)	oxycodone (oral)	0.5	20mg po morphine = 10mg po oxycodone
codeine	oxycodone (oral)	0.05	60mg codeine = 3mg oxycodone

\* This data is approximate but can be used for converting patients from one route of drug administration to another. Adjustments may need to be made for individual patients.

#### ROUTE OF ADMINISTRATION, DOSE RANGE AND DOSE INTERVAL

##### Codeine Phosphate

**Use of codeine phosphate is no longer a recommended form of analgesia due to interpatient variability and cases of toxicity in patients who are ultra rapid metabolisers.**

**Do not give codeine concurrently with any of the strong opioids.**



## Morphine

Morphine	<p>For acute severe pain - see IV opioid protocol - MDHB-1034.</p> <p>For non-emergency and maintenance of acute pain:</p> <ul style="list-style-type: none"> <li>• Whenever possible use oral route.</li> </ul> <p><u>Oral tablets or solution:</u></p> <p>If converting from parenteral (IV, IM or SC) to oral morphine, the oral dose should be 3 times the parenteral dose.</p> <p>If starting the patient on oral morphine:</p> <ul style="list-style-type: none"> <li>• Initially prescribe 5 to 10 mg of <u>short-acting tablets or solution</u> every two-four hours.</li> <li>• Lower initially dose of 2.5mg may be indicated for elderly patient.</li> <li>• Reassess pain (and side-effects) after 30 minutes to ensure patient comfort. If pain is not adequately controlled, add an extra dose of morphine – do not wait until the next dose is due. If pain is adequately controlled by this extra dose then the new 2-hourly dose should be the original dose plus the extra dose.</li> </ul> <p>In general, increase the dose of short-acting morphine by 100% if daily dose under 50mg, by 50% if daily dose 50-100mg, and by 25% if daily dose 100mg or higher (NB if the dose required is greater than 100mg review should be considered ).</p> <p>If the severe acute pain is persistent, <u>commence long-acting morphine</u> tablets by dividing the total daily short-acting morphine requirements by two and giving that dose as a long-acting/controlled release morphine tablet every 12 hours.</p> <p>When giving controlled release morphine tablets, always consider co-prescribing short-acting PRN morphine to control “breakthrough pain” at a four-hourly dose of about 20% of the total daily long-acting morphine dose. If the patient requires regular short-acting morphine doses then increase the long-acting morphine dose. Do this by adding the total daily requirement of short-acting morphine to the daily dose of long-acting morphine, then divide by two to get the new long-acting morphine dose.</p> <p><u>PCA:</u> Refer to Acute Pain Service</p>
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## Oxycodone

Oxycodone should not be a first line opioid. Morphine should be utilised unless contraindicated e.g documented current or past history of intolerable morphine (fast release or slow release).

**Oxycodone is approximately twice as potent as morphine.** It is a synthetic opioid that has both locally and internationally become more commonly utilised however an evidence based approach is encouraged. There is no evidence that oxycodone is superior to morphine in its efficacy or has less side effects. There is however increasing evidence of abuse of oxycodone internationally. If the patient satisfies the criteria for the use of oxycodone the following prescribing advice can be used.

Oxycodone	<p><u>Oral tablets:</u></p> <p><b>If starting the patient on oral oxycodone:</b></p> <ul style="list-style-type: none"> <li>• Initially prescribe 2.5 to 5 mg of <u>short-acting solution or capsule</u> every two-four hours, then up titrate every 3-4 days</li> <li>• Lower initial dose of 1.25mg may be indicated for elderly patient.</li> <li>• Reassess pain (and side-effects) after 30 minutes to ensure patient comfort. If pain is not adequately controlled, add an extra dose of oxycodone – do not wait until the next dose is due. If pain is adequately controlled by this extra dose then the new 2-hourly dose should be the original dose plus the extra dose.</li> </ul> <p>Do not halve, crush oxycodone long acting tablet due to biphasic formulation – can cause dumping effect leading to toxicity.</p> <p>If pain not controlled by above regimen and persists despite assessment and intervention contact APS team – see criteria for referral page 1.</p>
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### OBSERVATIONS REQUIRED WHILST ON OPIOID THERAPY

Prior to administration carry out baseline observations. Pulse, blood pressure, respiration rates, sedation score and pain intensity at rest and on movement are the recommended minimum. More frequent observation may be required in some patients.

ROUTE	FREQUENCY
IV	Prior to administration, during administration and then post at 5 minutes and 30 minutes then continue routine observations if patient comfortable and stable (MDHB – 1034)
Oral route	At 30 minutes then hourly for the first four hours in opioid naïve patients. If there is an increase in sedation, decrease in respiratory rate or blood pressure review of prescription prior to administration of further dose should be considered and observations again repeated at 30 minutes and one hour post administration. If stable routine four hourly observations should continue for 24 hours. At any time if a patient receiving opioids appears sedated more frequent observations are required. NB – use the modified Macintyre scale for assessment of sedation

### REASSESSMENT OF PAIN

Reassess at patient comfort at regular intervals and adjust prescriptions accordingly.

Review doses up or down in relation to:

- Patient comfort (pain intensity at rest or on movement 0-10)
- Development of side effects
- Illness states – primary diagnosis and previous disease states
- Other drug use (current and previous)
- 

### MANAGEMENT OF SEVERE COMPLICATIONS

Refer to MDHB-1034 for emergency protocols and standing orders.

### PRESCRIBING ON DISCHARGE

- Not all of the above analgesics may be subsidised on an outpatient prescription. Please refer to the NZ Formulary [www.nzf.org.nz](http://www.nzf.org.nz). This also needs to be discussed with the patient.
- Prescriptions for supply of opioid analgesics (except codeine) for outpatient supply should be hand written on a triplicate copy Controlled Drugs Prescription form (H572).

- Please consider specify quantity of supply i.e 5/7 or 10 tablets and make this overt in the discharge summary to guide community prescribers.
- Please refer/consult/liase with the patients Primary Health care team if patients are discharged on opioids.
- Please co-prescribe a laxative if discharging a patient on an opioid

#### 4. REFERENCES

Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine (2015). Acute Pain Management: Scientific Evidence 4th Edition. Victoria International Association for the Study of Pain.(2010) Pharmacology of Pain. IASP Press, Seattle USA  
Therapeutic Guidelines, Analgesic, Edition 6, 2012, Victoria, Australia.  
[www.nzf.org.nz](http://www.nzf.org.nz) accessed July 2017

#### 5. RELATED MDHB DOCUMENTS

MDHB-147	Pain Management in Adults -Clinical Guideline-
MDHB-1034	Adult IV Opioid Protocol for Patients in Pain with Existing IV Access (Including Women in Labour) -Procedure-
MDHB-7120	Guideline for Management and Prevention of Opioid Related Constipation

#### 6. APPENDICES

<u>Appendix 1</u>	Initial Assessment of the Patient in Acute Pain
<u>Appendix 2</u>	Prevention of Adverse Effects

#### 6. KEYWORDS

Pain, Analgesia, Paracetamol, NSAIDs, Tramadol, Codeine, Morphine, Fentanyl, Oxycodone, Opiates, Constipation, Sedation



## Appendix 1:

### THE INITIAL ASSESSMENT OF THE PATIENT IN ACUTE PAIN

Factors to be considered when assessing a patient in acute pain:

- Cause and physiological response
  - Location
  - Intensity of the pain at rest **and** at movement with a score of 1- 10
  - Quality
  - Onset and Duration
  - Precipitating factors
  - Modifying factors
  - Psychological response to pain
  - Behavioural response to pain
  - Previous response to analgesia – Re assessment
- Existence of factors that might affect the patient's absorption distribution, metabolism and elimination of opioids, e.g. weight, age, hepatic or renal disease, drug dependence, or clinical condition.

Appendix 2:

PREVENTION OF ADVERSE EFFECTS

**Always chart medicines for the management of anticipated side effects**, i.e. nausea, vomiting and constipation. Do not wait for these side effects to occur. Constipation is defined as BNO for 3 days (HSQC, 2017). Recommendation is to co-prescribe a laxative if a patient is on an opioid. Exception to this a patient undergoing colorectal surgery or bowel obstruction. Always consult with admitting team. Consider non-pharmacological alternatives such as increasing fibre.

Refer to MDHB – 7120: Guideline for Management and Prevention of Opioid Related Constipation

Anti-emetics		Cautions
Cyclizine (Central-acting)	50mg PO/IV q8h	Sedation, BPH, severe heart failure.
Domperidone	10mg PO q8h	Prolonged QT
Ondansetron	4-8mg PO/IV q8h	Constipation, prolonged QT, reduce effect of tramadol
Metoclopramide	10mg PO/IV q8h	Extrapyramidal effects, Parkinson's disease, prolonged QT.

Laxatives		Cautions
Laxsol (Docusate & Senna)	1-2 tabs PO twice daily <i>regular</i>	Drink plenty of fluids, stimulant
Docusate	120mg PO twice daily <i>regular</i>	
Bisacodyl	5-10mg PO twice daily, or 10mg PR STAT	Drink plenty of fluids, stimulant
Molaxole ® Sachets	1 sachet dissolved in 125mL water twice daily. Max 8 sachets a day if faecally impacted	Fluid and electrolyte disturbance, Use with caution in patients with congestive heart failure and renal impairment.
Kiwicrush	1 cup PO 3 x daily	Hyperkalaemia, NOT funded in community, Use in combination with other laxative
Lactulose	15mL PO 2 x daily, Adjusted according to response	May take up to 48 hours to act. Drink plenty of fluids <b>Ineffective in opioids-induced constipation</b>



# GUIDELINE

## POST-OPERATIVE CARE: GENERAL SURGICAL PROCEDURES

Applicable to: **Nursing Staff – Surgical Wards**

Issued by: **Surgical Services**

Contact: **CN/ACN/NE/ Surgical Services**

### 1. PURPOSE

To monitor patients for early detection of post-operative complications and plan a return to normal function as quickly, safely, and comfortably as possible.

### 2. SCOPE

Applies to all MidCentral Health nursing staff working with general surgical patients.

### 3. ROLES AND RESPONSIBILITIES

Nursing staff caring for patients following surgery must follow this guideline.

### 4. GUIDELINE

- 4.1 [Abdominal Aorta Aneurysm Repair](#)
- 4.2 [Amputation of a Limb](#)
- 4.3 [Arterial Bypass Surgery for Acute Arterial Occlusion](#)
- 4.4 [Femoral-Popliteal Bypass](#)
- 4.5 [Parotidectomy](#)
- 4.6 [Perforated Gastric Ulcer](#)
- 4.7 [Splenectomy](#)
- 4.8 [Thyroidectomy/Parathyroidectomy](#)
- 4.9 [Oesophagectomy](#)

#### **Health and Safety**

Staff are required to prevent injury to self and others by:

- Complying with MDHB Hospital and Associated Services Policies particularly
  - Standard Precautions Protocol [MDHB-963](#)
  - Prevention of Manual Handling Injury [MDHB-1898](#)
- Using Protective Equipment/ Actions as required
  - Identify necessary gloves, eye protection, and gowns/ aprons\* (see Standard Precautions).
- Using appropriate aids/ equipment for the task
  - Ensure sufficient lighting is available to safely undertake the procedure.
  - Adjustable height bed/ couch or trolley as appropriate and adjust patients as

required.

- If patient movement is necessary take appropriate preventive precautions
  - Assess patient mobility status and refer to manual handling assessment in patient's care plan before moving.
  - Ensure appropriate personnel (trained in Manual Handling techniques including Semi Squat) are available to assist.
  - Manual handling transfer equipment, e.g. slippery sheet.
- Be aware of possibly that patients may behave unpredictably thereby presenting physical risk.
- Training using of Health and Safety techniques and equipment is required for all activities.  
\* If there is any uncertainty about selection of personal protective equipment consult Infection Control Manual, Departmental Hazard Control Plan or Infection Control or Occupational Health Staff (as relevant to the particular issue).



## **4.1 ABDOMINAL AORTA ANEURYSM REPAIR**

### **Definition**

An **Aneurysm** is a localised sac or dilatation of an artery formed at a weak point in the vessel wall.

### **Assessment**

- Patient is transferred to ICU for initial post-operative period and transferred to the ward.
- Observations- Blood pressure, heart rate, temperature, respiratory rate, pulse oximetry, urine output and level of consciousness should be assessed hourly for 4 /24, then if stable, four hourly according to patient status and as per Early Warning Score.
- Neurovascular observations assessed and record on observation chart
- Record urinary output on Fluid balance chart.
- Review the wound and document in the notes. Commence wound assessment chart if wound changes.
- Assess for nausea as per nausea/appetite scale and record on observation chart.
- Risk assessments completed on trendcare and actioned accordingly

### **Pain Management**

- Complete a comprehensive pain assessment. Document patient's response to analgesia intervention using Pain Assessment Tool
- Administer analgesia/medication as prescribed by medical staff – this may include PCA/Epidural analgesia
- Ensure adequate alternative analgesia is given prior to PCA/Epidural infusion being discontinued

### **Medications**

- Administer anticoagulant as prescribed.
- Administer medications as prescribed.

### **Input**

- IV fluids as prescribed by medical staff
- Commence diet as instructed by Medical team.

### **Output**

- Monitor and record urinary output 1/24 – 2/24 depending on amount of urinary output/ medical staff's request: Goal > 30ml/hr or as documented by medical staff
- Maintain an accurate fluid balance chart
- Empty catheter bag 8/24 and record output
- Report passing of flatus and when bowels open

### **Wound**

- Observe, report and document amount and type of wound ooze/swelling and signs of infection.

- Check Redivac drain 2-4/24 for patency, mark bottle at 1400 hrs daily and record amount of drainage on wound drainage chart

### **Hygiene/Comfort Cares**

- Assist patient with daily hygiene cares until mobile, encourage patient to participate in personal cares.
- Assess patient for pressure area management and change patient's position frequently – at least 2/24 if patient has an epidural infusion in progress.
- A pressure relieving mattress may be required in accordance with Braden score
- Remove anti embolic stockings for hygiene cares and check skin integrity each shift

### **Mobilisation**

- Encourage early mobilisation using aids as required e.g. walking stick, rolator frame.
- Patient to sit in a chair at least twice a day until fully mobile
- Advise patient to support wound when coughing or sneezing
- Encourage deep breathing/leg exercises
- Physiotherapist to assist with mobilisation
- Patient to wear anti embolic stockings while in hospital



## **4.2 AMPUTATION OF A LIMB**

### **Definitions**

**Amputation:** Removal of a limb designed to improve the patient's quality of life. It is used to relieve symptoms and to facilitate improved function.

### **Return of Body Parts**

- Ensure patient/family/Whanau has knowledge of the process for the safe return of the requested body parts and knowledge of the danger of biohazardous waste and of the poisonous medium it may be in.
- Body parts will be returned as requested on the operation consent form and disclaimer form in a safe manner which prevents risks to patients and staff as per [MDHB-148](#) and [MDHB-3373](#).

### **Assessment**

- Observations- Blood pressure, heart rate, temperature, respiratory rate, pulse oximetry, urine output and level of consciousness should be assessed hourly for 4 /24, then if stable, four hourly according to patient status and as per Early Warning Score.
- Neurovascular observations assessed and record on observation chart
- Record urinary output on Fluid balance chart.
- Review the wound and document in the notes. Complete a wound assessment chart.
- Assess for nausea as per nausea/appetite scale.
- Risk assessments completed on trendcare and actioned accordingly
- Consider Psychological assessment of patient and emotional state due to loss of limb.

### **Pain Management**

- Complete a comprehensive pain assessment. Document patient's response to analgesia intervention using Pain Assessment Tool.
- PCA, Epidural or Sciatic nerve block infusions as prescribed by medical staff.

### **Surgical Pain**

- This is located at the incision and can be readily controlled with analgesia, or evacuation of the haematoma or accumulated fluid.

### **Phantom Pain**

- Described as pain or unusual sensation in the part that has been amputated. The sensation creates a feeling that the extremity is present and possibly crushed, cramped, or twisted in an abnormal position.

### **Muscle Spasm**

- This may add to the patient's discomfort during convalescence.
- Administer pain relief as prescribed by medical staff.
- Involve members of the multidisciplinary team: Physiotherapist, Acute Pain Service.
- Changing patient's position may improve the patient's level of comfort.

### **Input**

- Fluids – light diet – normal diet as tolerated by the patient or instructed by medical staff.
- IV fluids or GIK infusion as prescribed.
- Refer to dietician for high protein diet to facilitate wound healing.

### **Output**

- Report first micturition.
- Indwelling catheter maybe in situ – monitor and record urinary output.
- Maintain an accurate fluid balance chart.
- Empty catheter bag 8/24 and record output.
- Report when passed flatus or bowels open. Monitor to prevent constipation.

### **Wound Care**

- Check wound and report amount and type of ooze – reinforce dressing as necessary.
- Leave tegaderm undisturbed until instructed by the surgeon.
- Notify medical staff if signs and symptoms of infection: patient feeling unwell, elevated temperature, pain, swelling of the affected area, redness, smelly discharge.
- No stump bandaging until the sutures are all removed.
- Removal of sutures is at the discretion of the surgeon. Usually 14-21 days post-op.
- Elevation of stump, by elevation of end of bed.

### **Hygiene/Comfort Cares**

- Assist patient with hygiene cares, encourage patient to participate wherever possible.
- Pressure area cares 2-4 hourly.
- A pressure relieving mattress may be required in accordance with Braden score

### **Mobilisation**

- Refer to Physiotherapy.
- Mobilise into chair/wheelchair as instructed by the surgeon – early if lower limb amputation.
- Ensure patient safety while in bed.
- Encourage deep breathing/leg exercises to prevent or decrease chest complications.

### **Discharge Planning**

- This is to commence when the patient attends preadmission clinic and continue when the patient is transferred to the ward post-operatively.
- Involve members of the multidisciplinary team – e.g. Social worker, ACC, occupational therapist, physiotherapist, District Nurse, meals on wheels, home help.
- Referral to Star for rehabilitation as soon as possible.
- Offer patient information on Amputation Society.
- Discharge summary and information must be provided to the patient prior to leaving the hospital.

### **Discharge Advice**

- An outpatient appointment will be posted to the patient.
- Give patient information sheet “You and Your Wound” which outlines advice for wound care.
- Ensure home has been assessed in terms of the patient’s continuing care, safety and mobility.



- Physical therapy and occupational therapy may continue in the home.
- Transportation to continuing health care appointments must be arranged.

## **4.3 ARTERIAL BYPASS SURGERY FOR ACUTE ARTERIAL OCCLUSION**

### **Definitions**

**Embolic occlusion** an embolus is a body which is foreign to the bloodstream and which may become lodged in a vessel and cause obstruction.

**Simple emboli** are due to blood thrombus. Emboli may lodge in any organ with resultant ischaemia and symptoms.

### **Endarterectomy**

A direct opening is made into the artery to remove the obstruction.

### **Embolectomy**

Removal of an embolus from an artery.

### **Femoral-femoral bypass**

A graft from one femoral artery to the other.

### **Axillo-femoral bypass**

A graft from the axillary artery to the femoral artery. It is created subcutaneously on the side of the chest.

### **Femoral-popliteal bypass**

A graft from the femoral artery to the popliteal artery.

### **Aorto-iliac bypass**

A graft from the aorta to the iliac arteries.

### **Post Op Assessment**

- Observations- Blood pressure, heart rate, temperature, respiratory rate, pulse oximetry, urine output and level of consciousness should be assessed hourly for 4 /24, then if stable, four hourly according to patient status and as per Early Warning Score.
- Neurovascular observations on affect limb hourly x 8 hours, two hourly x 24 hours and then four hourly. Record on observation chart.
- Record urinary output on Fluid balance chart.
- **Disappearance of a pulse may indicate thrombotic occlusion of the graft: Notify Surgeon immediately.**
- Monitor all incision and arteriogram sites for bleeding/swelling.
- Assess for nausea as per appetite/nausea scale.
- Risk assessments completed on trendcare and actioned accordingly.

### **Pain Management**

- **Complete a comprehensive pain assessment.** Document patient's response to analgesia intervention using Pain Assessment Tool
- Administer analgesia as prescribed.

### **Input**

- IV fluids as prescribed.
- Free fluids – normal diet.



### **Medication**

- May be prescribed Heparin infusion for a short time therefore, often progress to clexane or warfarin and discharged home on this. Involve haematology Nurse.

### **Output**

- Monitor and record urinary output: Goal >30 ml/hr/
- Maintain an accurate fluid balance chart.
- Report passing of flatus and when bowels open.

### **Wound**

- Observe, report and document amount and type of wound ooze, site of wound and signs of infection.
- Remove dressing according to doctor's instructions – either replace dressing or leave open.
- Check redivac drain 1/24 for patency, mark bottle towards end of shift and record amount of drainage on fluid balance chart.

### **Hygiene/comfort cares**

- Check with Surgeons regarding any bed rest for patient
- Assist patient with hygiene cares, encourage patient to participate wherever possible
- Provide air mattress depending on Braden Score and bed-cradle on bed.
- Assess patient for pressure areas and change patient's position 2-4 hourly.
- Anti embolic stockings may be worn on the unaffected leg (remove each duty to check skin integrity)

### **Mobilisation**

- Check with Surgeons regarding mobility.
- Patient to sit in a chair at least twice a day until fully mobile.
- Advise patient not to cross legs when lying in bed or sitting in a chair.
- Encourage deep breathing/leg exercises.
- Physiotherapist will assist with mobilisation.
- Advise patient to avoid flexion in the graft area.
- Do not put on anti embolic stockings on unless charted or advised by Surgeon. Anti embolic stockings can go on unaffected leg.
- Encourage deep breathing/leg exercises to prevent or decrease chest complications.

## **4.4 FEMORAL-POPLITEAL BYPASS**

### **Definitions**

**Femoral-Popliteal Bypass:** A graft from the femoral artery to the popliteal artery.

**Doppler:** An ultrasound device to hear the blood flow in vessels when pulses cannot be palpated.

### **Assessment**

- Observations- Blood pressure, heart rate, temperature, respiratory rate, pulse oximetry, urine output and level of consciousness should be assessed hourly for 4 /24, then if stable, four hourly according to patient status and as per Early Warning Score.
- Neurovascular observations on affect limb hourly x 8 hours, two hourly x 24 hours and then four hourly. Record on observation chart.
- Doppler evaluation distal to the bypass graft should be performed as it is more sensitive than digital palpation. Loss of pulse may indicate thrombotic occlusion of the graft – notify surgeon immediately.
- Check groin wound for swelling/ooze one hourly x 12/24 and then 2-4 hourly.
- Complete wound assessment.
- Severe oedema of extremity, pain or decreased sensation to toes may indicate Compartment Syndrome.
- Assess for nausea as per appetite/nausea scale.
- Risk assessments completed on trendcare and actioned accordingly

### **Pain Management/Medication**

- **Complete a comprehensive pain assessment.** Document patient's response to analgesia intervention using Pain Assessment Tool
- Administer pain relief as prescribed by medical staff – this may include PCA/Epidural analgesia.
- Ensure adequate alternative pain relief is given when PCA/Epidural discontinued.
- Administer medication as prescribed by medical staff.

### **Input**

- IV fluids as prescribed by medical staff.
- Light diet – normal diet as tolerated.

### **Output**

- Monitor and record urinary output – may be catheterised initially. Maintain >30 ml/hr.
- Report first micturition if urinary catheter not present.
- Maintain an accurate fluid balance chart.
- Report passing of flatus and when bowels open.

### **Wound**

- Observe, report and document amount and type of wound ooze.
- Remove tegaderm according to Doctor's instructions – either replace tegaderm or apply dry dressing to ensure wound remains dry – **very important.**
- Observe wound for signs and symptoms of infection.
- Check wound drain 1/24 for patency, mark bottle at 14:00 hours daily and record amount on fluid balance chart.



### Hygiene/Comfort Cares

- Check with Surgeons regarding any bed rest requirements for patient.
- Assist patient with hygiene cares, encourage patient to participate wherever possible
- Place bed-cradle on bed – requirement if epidural infusion in progress.
- Assess patient for pressure area management and change patient's position frequently – at least 2 hourly if patient has an epidural infusion in progress.

### Mobilisation

- Encourage gentle mobilisation using aids as required e.g. walking stick, rolator frame.
- Patient to sit in a chair at least twice a day until fully mobile. Elevate extremities when sitting in chair.
- Encourage deep breathing/leg exercises to prevent or decrease chest complications.
- Advise/educate patient not to cross legs and avoid sharp flexion in area of graft.
- Physiotherapist will assist with mobilisation.

### Discharge Advice

- An outpatient appointment will be posted to the patient.
- Give patient information sheet "You and Your Wound"
- GP will remove sutures
- Advise patient to increase gentle mobilisation.
- Limit activity for 5-7 days.
- Restrict heavy lifting and strenuous exercise for 4-6 weeks.

## **4.5 PAROTIDECTOMY**

### **Definition**

**Parotidectomy:** Surgical excision of the parotid gland.

### **Assessment**

- Check wound and report type and amount of ooze.
- Assess facial movement for facial nerve damage – ask patient to smile.
- Complete Risk assessments.

### **Pain Management/Medication**

- Assess patient's level of comfort using Pain Assessment Tool.
- Administer analgesia/medication as prescribed by medical staff.
- Document patient's response to analgesia using Pain Assessment Tool.

### **Input**

- IV Fluids as prescribed by medical staff
- Initially patient to be NBM – fluids – soft diet as tolerated.

### **Output**

- Report first post operative micturition.
- Maintain an accurate fluid balance chart.
- Report passing of flatus and when bowels open.

### **Wound**

- Observe, report and document amount and type of wound ooze.
- Remove tegaderm according to Doctor's instructions – either replace tegaderm or apply dry dressing to ensure wound remains dry – **very important**.
- Observe wound for signs and symptoms of infection.
- Check wound drain 1/24 for patency, mark bottle at 14:00 hours daily and record amount of drainage on wound drainage chart.

### **Hygiene/Comfort Cares**

- Encourage patient to participate in personal cares wherever possible.
- Assist patient with daily hygiene cares until mobile, then daily shower.
- Provide mouthwashes and assist with oral cares.

### **Mobilisation**

- Encourage gentle mobilisation using aids as required.
- Patient to sit in a chair at least twice a day until fully mobile.
- Encourage deep breathing/leg exercises.

### **Discharge Advice**

- An outpatient appointment will be posted to the patient.
- Give patient information sheet "You and Your Wound"



## **4.6 PERFORATED GASTRIC ULCER**

### **Definition**

**Perforation:** Is the erosion of the ulcer through the gastric serosa into the peritoneal cavity without warning.

### **Assessment**

- Observations- Blood pressure, heart rate, temperature, respiratory rate, pulse oximetry, urine output and level of consciousness should be assessed hourly for 4 /24, then if stable, four hourly according to patient status and as per Early Warning Score.
- Report abdominal distension, hyperactive or absent bowel sounds, passing flatus, bowels opening.
- Risk assessments completed on trendcare and actioned accordingly

### **Pain Management/Medication**

- **Complete a comprehensive pain assessment.** Document patient's response to analgesia intervention using Pain Assessment Tool.
- Administer analgesia/medication as prescribed by medical staff this may include PCA analgesia.

### **Input**

- IV Fluids/medications as prescribed by medical staff
- Initially patient to be NBM – fluids – increase oral intake as instructed by medical staff.
- It is likely the patient will require TPN, refer to dietitian
- Once flatus has been passed then oral fluids increasing to light/normal diet as requested by medical staff and as tolerated by the patient.

### **Output**

- Monitor and record urinary output initially 1/24 – 2/24 depending on amount of urinary output/medical staff's request – inform medical staff if urinary output low i.e. <30 ml/hr.
- Report nausea and vomiting.
- Maintain an accurate fluid balance chart.
- Report passing of flatus and when bowels open.
- Naso-gastric tube in situ – free drainage. **Aspirations only if instructed by medical staff.**

### **Wound**

- Assess and observe wound, report and document amount and type of wound ooze.
- Observe wound for signs and symptoms of infection.
- Check wound drain 1/24 for patency, mark bottle at 14:00 hours daily and record amount of drainage on fluid balance chart.

### **Hygiene/Comfort Cares**

- Assist patient with hygiene cares, encourage patient to participate wherever possible .
- Provide mouthwashes and assist with oral cares.
- Assess patient for pressure areas and change patient's position 2-4 hourly.
- Remove anti embolic stockings each duty to check skin integrity.

### **Mobilisation**

- Encourage gentle mobilisation using aids as required .

- Patient to sit in a chair at least twice a day until fully mobile.
- Encourage deep breathing/leg exercises to prevent or decrease chest complications.
- Physiotherapist will assist with mobilisation.

**Discharge Advice**

- An outpatient appointment will be posted to the patient.
- Nutritional advice – ensure patient seen by a dietitian prior to discharge.
- Give patient information sheet “You and Your Wound”
- Continue to increase mobilisation.
- GP to remove sutures.
- Avoid heavy lifting x 4-6 weeks.



## **4.7 SPLENECTOMY**

### **Definitions:**

**Spleen:** A soft, highly vascular, roughly ovoid organ situated between the stomach and the diaphragm in the left hypochondriac region of the body.

**Splenectomy:** Surgical removal of the spleen.

### **Pre-operative Cares**

**NB: Young patients are at increased risk of pneumococcal infections for several years after splenectomy and should receive triple vaccine two weeks prior to surgery – discuss with surgeon. In the acute situation Pneumovax will be administered before surgery if possible.**

### **Assessment**

- Observations- Blood pressure, heart rate, temperature, respiratory rate, pulse oximetry, urine output and level of consciousness should be assessed hourly for 4 /24, then if stable, four hourly according to patient status and as per Early Warning Score.

### **Pain Management/Medication**

- **Complete a comprehensive pain assessment.** Document patient's response to analgesia intervention using Pain Assessment Tool.
- Administer analgesia/medication as prescribed by medical staff – this may include PCA/Epidural analgesia.
- Ensure adequate alternative pain relief is given when PCA/Epidural discontinued.

### **Input**

- IV Fluids/medications as prescribed by medical staff
- Initially patient to be NBM – until instructed by medical staff.
- Once flatus has been passed then oral fluids increasing to light/normal diet as requested by medical staff and as tolerated by the patient.

### **Output**

- Monitor and record urinary output initially 1/24 – 2/24 depending on amount of urinary output/medical staff's request – inform medical staff if urinary output low i.e. >30 ml/hr.
- Maintain an accurate fluid balance chart.
- Empty catheter bag 8/24 and record output.
- Report passing of flatus and when bowels open.

### **Wound**

- Observe, report and document amount and type of wound ooze/swelling.
- Remove tegaderm according to Doctor's instructions – either replace tegaderm or apply dry dressing to ensure wound remains dry – **very important.**
- Observe wound for signs and symptoms of infection.
- Check wound drain 1/24 for patency, mark bottle at 14:00 hours daily and record amount of drainage on fluid balance chart.

### **Hygiene/Comfort Cares**

- Assist patient with hygiene cares, encourage patient to participate wherever possible

- Provide mouthwashes and assist with oral cares.
- Remove anti embolic stockings each duty to check skin integrity.
- Provide air mattress depending on Braden Score

### **Mobilisation**

- Encourage gentle mobilisation using aids as required .
- Patient to sit in a chair at least twice a day until fully mobile.
- Encourage deep breathing/leg exercises to prevent or decrease chest complications.
- Physiotherapist will assist with mobilisation.

### **Discharge Advice**

- An outpatient appointment will be posted to the patient.
- Nutritional advice – ensure patient seen by a dietitian prior to discharge.
- Give patient information sheet “You and Your Wound”
- Continue to increase mobilisation.
- GP to remove sutures.
- Advise patients to seek prompt medical attention when even relatively minor symptoms of infection occur.
- Patients with high platelet counts are often found to have even higher counts after splenectomy and this can predispose to serious thrombotic or haemorrhagic problems.
- Avoid heavy lifting x 4-6 weeks



## **4.8 THYROIDECTOMY/PARATHYROIDECTOMY**

### **Definition:**

**Partial or Complete Thyroidectomy:** Surgical excision of the thyroid gland, may be carried out as a primary treatment of thyroid carcinoma or hyperparathyroidism. The type and extent of the surgery depends on the diagnosis, goal of surgery and prognosis.

**Parathyroidectomy:** Removal of the parathyroid glands which are attached to the dorsal surfaces of the lateral lobes of the thyroid gland.\

### **Assessment**

- Observations- Blood pressure, heart rate, temperature, respiratory rate, pulse oximetry, urine output and level of consciousness should be assessed hourly for 4 /24, then if stable, four hourly according to patient status and as per Early Warning Score.
- Observe and report neurological signs – headache, vision changes, anxiety, altered levels of consciousness, twitching, convulsions.
- Patient may experience hoarseness, weak voice due to laryngeal nerve involvement. If this has occurred as a result of intubation it gradually clears. Laryngeal nerve damage can result in vocal cord spasm and respiratory obstruction.
- Airway obstruction may result from laryngospasm, laryngeal oedema due to surgical manipulation, tracheal compression from haematoma formation, or laryngeal obstruction due to bilateral cord paralysis.
- Monitor and report difficulty in swallowing/coughing/tremors/restlessness.
- Monitor wound for swelling/inflammation or sensation of pressure or fullness.
- Signs of respiratory distress.

**Calcium deficiency** – (tetany) tingling around the mouth, fingers or toes, cramps.

- Serum calcium levels may decline in the first 24 hours post surgery. Sub normal levels may persist for 4-5 days. Serum calcium levels are checked the evening of operation and the next morning or more frequently if required.
- **Thyroid Storm** – Thyroid Storm or severe thyrotoxicosis is a life threatening crisis. It is characterised by extremely exaggerated signs and symptoms of hyperthyroidism. Usually occurs intra operatively or up to 18 hours post operatively.

**NB: Ensure suture cutters/clip removers are with the patient at all times.**

### **Pain Management/Medication**

- **Complete a comprehensive pain assessment.** Document patient's response to analgesia intervention using Pain Assessment Tool.
- Administer analgesia/medication as prescribed by medical staff.

### **Input**

- IV fluids as prescribed by medical staff.
- Initially patient to be NBM – check swallowing reflex prior to commencement of oral fluids then light/soft food diet as requested by medical staff.

### **Output**

- Monitor and record urinary output.
- Report first micturition
- Maintain an accurate fluid balance chart.

## Wound

**NB: Ensure suture cutters/clip removers are with the patient at all times.**

- Observe, report and document amount and type of wound ooze/swelling.
- Observe sides and back of the neck as well as the anterior dressing for bleeding.
- Remove tegaderm according to doctor's instructions – either replace tegaderm or apply a dry dressing to ensure wound remains dry.
- Observe wound for signs and symptoms of infection.
- Check wound drain 1/24 for patency, mark bottle at 1400 hours daily and record amount of drainage on fluid balance chart.

## Hygiene/Comfort Cares

- Assist patient with hygiene cares, encourage patient to participate wherever possible
- Nurse the patient in semi-fowler's position with the head elevated and supported by pillows.
- Assess patient for pressure area management and change patient's position frequently – at least 2/24 – if patient unable to do so independently.
- Provide air mattress depending on Braden Score
- Remove anti embolic stockings for hygiene cares and to check skin integrity each duty.
- Turn patient carefully so as to support the head and avoid tension on the suture line.
- Advise patient to talk as little as possible to reduce oedema to vocal cords.
- Support the head when moving/turning.

## Mobilisation

- Encourage early mobilisation using aids as required, e.g. walking stick, rolator frame.
- Encourage patient to sit in a chair at least twice a day until fully mobile.
- Encourage deep breathing/leg exercises to prevent or decrease chest complications.
- Physiotherapist will assist as required.
- Patient to wear anti embolic stockings while in hospital.

## Discharge Advice

- An outpatient appointment will be posted to the patient.
- Give patient information sheet "You & Your Wound".
- GP will remove sutures.
- Give advice of who to contact should they notice any tingling.



## 4.9 OESOPHAGECTOMY

### Definition:

#### Oesophagectomy

The removal of the tumour plus a wide tumour free-margin of the Oesophagus and the lymph nodes in the area. Surgical approach may be through the thorax or the abdomen depending on the location of the tumour.

#### Post-Operative Cares

- Patient transferred to ICU for initial post-operative assessment and treatment.
- Patient will require close monitoring in the ward, following transfer from ICU.
- Follow Guideline for Post-operative Cares for a Surgical Patient.
- Explain and discuss all cares with patient obtaining their consent.

#### Assessment

- Observations- Blood pressure, heart rate, temperature, respiratory rate, pulse oximetry, urine output and level of consciousness should be assessed hourly for 4 /24, then if stable, four hourly according to patient status and as per Early Warning Score.
- Report abdominal distension, hyperactive or absent bowel sounds, passing flatus, bowels opening.
- Nasogastric tube is usually sutured in place – record amount of drainage accurately on fluid balance chart
- Under Water Seal Drain maybe in situ - Refer to Chest Drain (Intercostal Catheter) Insertion Underwater Seal Drain Management and Catheter Removal [MDHB -1073](#)
- Risk assessments completed on trendcare and actioned accordingly.

**NB: Do not remove nasogastric tube unless instructed to do so by medical staff.**

#### Pain Management/Medication

- **Complete a comprehensive pain assessment.** Document patient's response to analgesia intervention using Pain Assessment Tool.
- Administer analgesia/medication as prescribed by medical staff this may include PCA/Epidural analgesia.
- Ensure adequate alternative analgesia is given prior to PCA/Epidural infusion being discontinued.

#### Input

- IV Fluids/medications as prescribed by medical staff
- Strictly NBM –until instructed by medical staff.
- **Patient only ever starts drinking when dye study performed to ensure that suture line is not leaking – follow surgeon's instructions.**
- It is likely the patient will require TPN or jejunostomy feeding, refer to dietitian

#### Output

- Monitor and record urinary output initially 1/24 – 2/24 depending on amount of urinary output/medical staff's request – inform medical staff if urinary output low i.e. <30 ml/hr.
- Maintain an accurate fluid balance chart.

- Report nausea and vomiting.
- Report passing of flatus and when bowels open.
- Naso-gastric tube in situ – free drainage. **Aspirations only if instructed by medical staff.** Record type/amount of drainage/aspirate.

### Wound

- Assess and observe wound, report and document amount and type of wound ooze.
- Observe wound for signs and symptoms of infection.
- Check wound drain 1/24 for patency, mark bottle at 14:00 hours daily and record amount of drainage on fluid balance chart.

### Care of Jejunostomy/Gastrostomy Tube

- Refer to Procedures for Gastrostomy Feeding Tube (PEG/PEJ/BRT) Management and Troubleshooting ([MDHB-429](#)).
- Tube clamped until ordered by Consultant – then warm water flushes as instructed by Surgeon
- Commence feeds once instructed by medical staff.

### Hygiene/Comfort Cares

- Assist patient with hygiene cares, encourage patient to participate wherever possible .
- Provide mouthwashes and assist with oral cares.
- Assess patient for pressure areas and change patient's position 2-4 hourly.
- Remove anti embolic stockings each duty to check skin integrity.
- Provide air mattress depending on Braden Score
- Always raise head of bed for swallowing food and liquids.

### Mobilisation

- Encourage gentle mobilisation using aids as required.
- Patient to sit in a chair at least twice a day until fully mobile.
- Encourage deep breathing/leg exercises to prevent or decrease chest complications.
- Physiotherapist will assist with mobilisation.
- Bending or stooping should be avoided.
- Care of right shoulder if had Thoracotomy.

### Discharge Advice

- An outpatient appointment will be posted to the patient.
- Ensure support services are organised prior to discharge from hospital, e.g. District Nurses, Home Help, Oncology, Hospice referral etc.
- Nutritional advice – ensure patient seen by a dietitian prior to discharge.
- Give patient information sheet “You and Your Wound”
- Continue to increase mobilisation.
- GP to remove sutures or arrange at outpatient clinic
- Avoid heavy lifting



## 5. REFERENCES

Brunner, L. S. (2010). *Brunner & Suddarth's textbook of medical-surgical nursing* (Vol. 1). S. C. C. Smeltzer, B. G. Bare, J. L. Hinkle, & K. H. Cheever (Eds.). Lippincott Williams & Wilkins.

McCance, L., Huether, S., Valentina L., & Brashers, N. (2010). *Pathophysiology : the biologic basis for disease in adults and children*. Mosby Elsevier Maryland Heights.

## 6. DEFINITIONS

**GIK** Glucose, Insulin, Potassium infusion

**PCA** Patient Controlled Analgesia

## 7. RELATED MDHB DOCUMENTS

- Clinical Guideline for Pre & Post-Operative Care of the Surgical Patient ([MDHB-1368](#))
- Clinical Guideline for Pain management in Adults ([MDHB-147](#))
- Procedure for Anti-Embolism Stockings (T.E.D.) ([MDHB-36](#))
- Chest Drain (Intercostal Catheter) Insertion Underwater Seal Drain Management and Catheter Removal (Procedure) ([MDHB-1073](#))
- Gastrostomy Feeding Tubes (PEG/PEJ/BRT) Management and Troubleshooting (Adults) ([MDHB-429](#))

## 8. FURTHER INFORMATION / ASSISTANCE

MidCentral Health General Surgeons  
Ward 29  
Tissue Viability Nurses

## 9. KEYWORDS

Abdominal Aortic Aneurysm, Post-operative, acute arterial occlusion, thyroidectomy, parathyroidectomy, occlusion, amputation, arterial bypass, femoral, popliteal, partidectomy, splenectomy, oesophagectomy

## POLICY

<b>SUICIDE RISK ASSESSMENT – EMERGENCY DEPARTMENT</b>	
Applicable to: <b>Emergency Department staff</b>	Issued by: <b>Emergency Department</b>
	Contact: <b>Service Manager/Clinical Director</b>

### 1. PURPOSE

To maintain safety and minimise risk to patients presenting with suicidality in the Emergency Department.

### 2. SCOPE

Applies to all medical and nursing clinicians in the Emergency Department.

### 3. ROLES & RESPONSIBILITIES

Clinical Director, ED – Emergency Department concordance to Ministry of Health suicide prevention guidelines for ED.

Registered Nurse – completing the Initial Assessment also completes MDHB-5224 Emergency Department Suicide Risk Assessment for indicated patients.

ED coordinator – provides guidance for Triage Disposition

Registered Nurse – Levels of Observation and continued assessment post initial Risk Assessment

### 4. INDICATIONS

Patients in the Emergency Department requiring a suicide risk assessment.

This includes (but is not limited to):

- Suicide attempt
- Suicidal self-directed violence
- Suicidal thoughts and suicidal behaviour
- Non-suicidal self-directed violence
- Self Harm Injury
- Self-harming behaviour

### 5. PROCESS

- The patient is Triageed using ED Triage Scale on arrival
- Environmental safety considerations applied to patient safety and allocation in the ED setting (i.e. code 1 & 2 inside disposition)
- Check whether patient has an ED management plan
- Consider whether a Level 3 Safety Companion is appropriate (Special or Security).
- Refer to Australasian [ED Mental Health] Triage Scale for Observed Behaviours
- Complete MDHB-5224 Emergency Department Suicide Risk Assessment



- Contact mental health services: refer and fax to Acute Care Team and as per form

## 6. REFERENCES

Ministry of Health. 2016. *Preventing suicide: Guidance for emergency departments*. Wellington: Ministry of Health. [www.health.govt.nz](http://www.health.govt.nz)

## 7. RELATED MDHB DOCUMENTS

MDHD-5224      Emergency Department Suicide Risk Assessment Form  
MDHB-6734      Level 2 Behavioural Observation Form

## 8. KEYWORDS

Suicide  
Risk  
Assessment  
Safety  
Emergency Department



Name: \_\_\_\_\_ NHI: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Date of Birth: \_\_\_\_\_ Male / Female  
 GP or Consultant: \_\_\_\_\_ Area: \_\_\_\_\_  
OR PATIENT ID LABEL HERE

BARCODE AREA

## EMERGENCY DEPARTMENT SUICIDE RISK ASSESSMENT

**ACT informed phone: 8162 fax: 8163**      **Consult Liaison informed (0272831786)**  
**DATE:** \_\_\_\_\_ **TIME:** \_\_\_\_\_

**CAN YOU TELL ME HOW YOU ARE FEELING AT THE MOMENT?**

- Yes    No  
 If yes, how? (Brief Description)

**SUICIDE ASSESSMENT**

- |   |                              |                             |
|---|------------------------------|-----------------------------|
| Have you had thoughts that life isn't worth living? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Have you thought of harming yourself?               | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Do you intend to act on your thoughts?              | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Have you got a plan?                                | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Do you feel safe at present?                        | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Have you thought of harming others?                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Are we safe?  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Are you thinking of suicide at present?             | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

**HAVE YOU?.....**

- |   |                              |                             |
|---|------------------------------|-----------------------------|
| Access to guns, weapons, medicines, or other lethal means?  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Do you have any weapons, blades, medications, drugs on you? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

**HAVE YOU?.....**

- |                                |                              |                             |
|--------------------------------|------------------------------|-----------------------------|
| Harmed yourself in the past?   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Attempted suicide in the past? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

**WHAT WOULD MAKE A DIFFERENCE AT THE MOMENT?**

- |  |                              |                             |
|--|------------------------------|-----------------------------|
| Is there something we can do to help you?<br>If yes, what? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
|--|------------------------------|-----------------------------|

\_\_\_\_\_  
 \_\_\_\_\_

**ANY RELEVANT MEDICAL HX?** \_\_\_\_\_

\_\_\_\_\_

**IS ANYONE ELSE WITH THEM?**

- Yes    No  
 If yes, who? \_\_\_\_\_

**Are they prepared to stay with patient whilst in ED?**

- Yes    No

**IS THERE ANYONE YOU WANT TO CALL?**

- Yes    No  
 Have you a working cell phone?                       Do you need support to make a call?

BINDING MARGIN - NO WRITING



