

# Emergency Nurse Practitioner Health Management Protocol

For the

Management of acute episodic  
presentations  
In the adult population

## Mackay Base Hospital Service Overview:

The Emergency Department of the Mackay Base Hospital (level 3) provides a 24 hour service, seven day a week adult and paediatric emergency health service. The department is supported by specialist medical and nursing staff and is part of the Queensland Health collaborative for improving emergency care for patients throughout Queensland.

Our service exists to provide better health and well being to our community. Our department is committed to providing emergency care that is timely, evidence based and results in the best possible outcomes for our patients.

The department has a strong commitment to developing a multi-disciplinary team approach to providing emergency care. Different staff groups are encouraged to have input and are highly valued. We ensure that the Clinicians are supported with continuing education and opportunities for self improvement.

We have systematic review and evaluation of our service against key performance indicators, and evidence based practices to align our service with Queensland health 2020 vision.

Our department works collaboratively with medical, surgical, mental health, paediatric, orthopaedic, obstetric and gynaecology services, to provide care for patients from presentation to discharge.

We enjoy positive partnerships with other services including the Division of Community and Primary Health, Division of Allied Health, Aged Care, Queensland Police and Ambulance and non-government and community organisations. We value innovation and support changes to practice to ensure efficiency and high quality performance.

## Disclaimer

This document has been established to provide a framework for the clinical practice of the Emergency Nurse Practitioner (ENP) at Mackay Base Hospital, Mackay Health Service District. The guidelines reflect the specific scope or practice of both the position and the skills and speciality knowledge of the current incumbent.

This guideline should not be considered exhaustive or be used in exclusion of other relevant references, policies, and clinical guidelines. It does not replace the need for professional and clinical judgement according to specific clinical requirements that may or may not be included in this document.

## Plan for Dissemination, Implementation, Review and Evaluation:

- The approved emergency nurse practitioner health management protocol will be held in a repository by the Office of the Chief Nursing Officer.
- A copy of the approved emergency health management protocol is to be held by the pharmacy of Mackay Base Hospital for identification/signatory purposes.
- Staff directly related to the practice of the nurse practitioner will be informed of the health management protocol.
- This protocol will be reviewed and evaluated on a regular basis through a local multidisciplinary team to ensure that it meets the needs of the patients, Mackay Base Hospital and the appointed.
- Formal review and evaluation of the health management protocol is required every two years. Interim updates to the Office of the Chief Nursing Officer are required annually (or earlier if there is a population change or change in practice) to ensure that they remain current with best practice.

## Scope of Practice Statement

The nurse practitioner is responsible and accountable for making professional judgements about when the patient's condition is beyond their scope of practice and for initiating consultation with a medical officer or other members of the health care team.

### Environment:

- The Nurse Practitioner works collaboratively within the multi-disciplinary team of the Emergency Department
- The Nurse Practitioner has the expertise to support referral to other health care professionals.
- The Nurse practitioner works within a multidisciplinary team inclusive of medical, nursing and allied health staff, as well as other health care professionals.

### Process of care:

#### Patient Assessment

- Obtains relevant health history
- Performs an appropriate physical examination
- If the assessment reveals that the care the patient requires is beyond the scope of the nurse practitioner the patient will be referred to a medical officer
- Applies crisis intervention when indicated

#### Diagnosis & Development of a Treatment Plan

- Formulates appropriate differential diagnosis based on clinical findings
- Identifies individual requirements to access health data from relevant persons.
- Identifies individual requirements to access health care services to support the implementation of acute care.
- Priorities are established and a mutually acceptable plan of care is devised to maximise the health potential of the individual. This includes, though is not limited to:
  1. Ordering appropriate diagnostic tests
  2. Prescribing appropriate pharmacological agents
  3. Identifying non-pharmacological interventions
  4. Establishing patient education opportunities
  5. Treatment plan is based on evidence based best practice

#### Implementation of Treatment Plan

- Interventions are based upon priorities
- Treatment is individual and specific to the situation
- Treatment is based on scientific principles, theoretical knowledge and clinical expertise.

#### Intervention

- Accurately conducting and interpreting diagnostic tests
- Prescribing pharmacological agents
- Prescribing non-pharmacological therapies

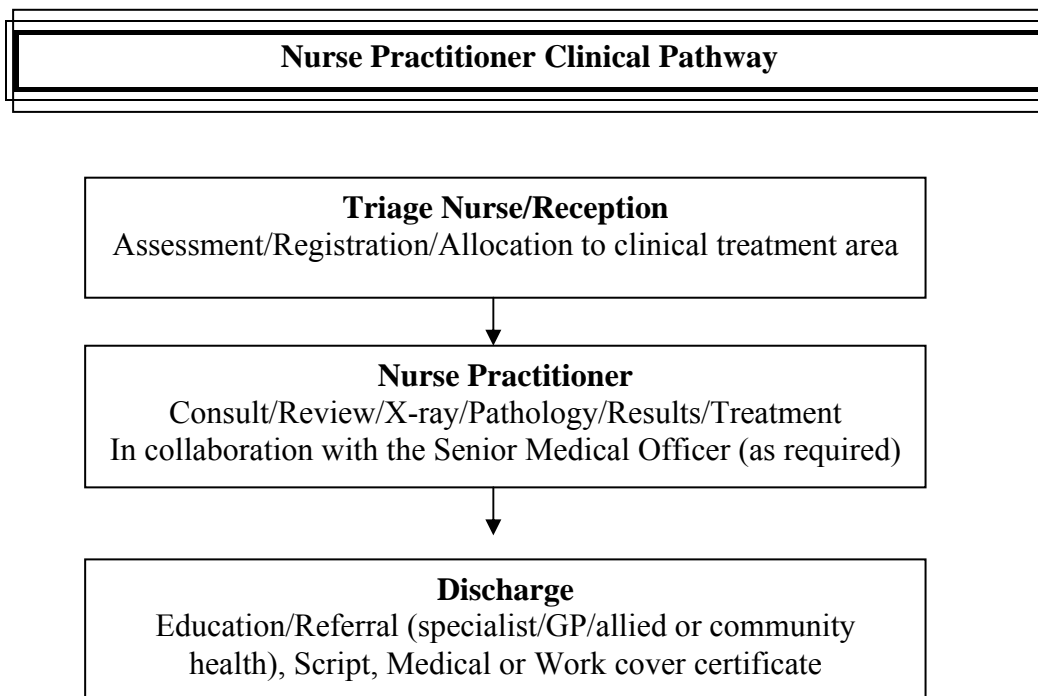
- Making appropriate referrals to other health care professionals and communities agencies
- Providing relevant patient and/or family health promotion/restoration education

#### Follow Up

- The Nurse Practitioner is responsible for follow up and evaluation of appropriate episodic acute health care issues
- Referral pathways may include community agencies/GP/specialist services.

The health management protocol is for the management of acute episodic presentations in the adult population (13 years and above).

### Emergency Nurse Practitioner Model of Care Pathway



### **Critically Unstable**

- The nurse practitioner will assist within management of these conditions in collaboration with a Senior Medical Officer (SMO).

Such persons presenting with:

- Threatened airway
- Respiratory arrest
- Respiratory rate <5 or > 36
- SaO<sub>2</sub> < 90% FiO<sub>2</sub> Room air
- Cardiac arrest
- Pulse rate < 40 or > 140 beats per minute

- Systolic blood pressure < 90
- Sudden fall in GCS >2
- Repeated or prolonged seizures.

### **Life Threatening**

- The nurse practitioner will assist with the management of these conditions in collaboration with a SMO

Including presentations such as:

- Anaphylaxis
- Burn > 15%
- Hypovolemia
- Poisoning
- Acute Myocardial Infarction
- Pancreatitis
- Haemorrhage
- Perforated bowel
- Pulmonary Oedema
- Diabetic ketoacidosis
- Hyperosmolar hyperglycaemia non-ketotic syndrome
- Hypoglycaemia
- Meningitis
- Status epilepticus
- Severe Asthma
- Epiglottitis
- Ectopic Pregnancy
- Spinal injuries

### **Limb, Organ or Person at Risk**

- The nurse practitioner will assist with the management of these conditions in collaboration with a SMO

Including presentations such as:

- Acute Angina
- Acute glaucoma
- Torsion of testes
- Antepartum haemorrhage
- Limb neurovascular injury
- Persons behaving in a dangerous or threatening manner
- Acute psychiatric presentations

## **Acute**

- Patients who present with an acute condition will be managed by the nurse practitioner. Consultation with a SMO will occur as required.

Including presentations such as:

- Bronchiolitis
- Febrile
- Fractures (complex)
- Pneumonia

## **Sub Acute**

- Patients who present with a sub acute condition will be managed by the nurse practitioner. Consultation with a SMO will occur as required

Including presentations such as:

- Adults with asthma
- Back pain related to acute injury
- Bites and Stings
- Burns (< 15%)
- Bronchitis and pneumonia
- Cellulitis
- Earache (Otitis media/externa)
- Foreign body removal
- Limb/ musculoskeletal injuries
- Toothache
- Upper respiratory tract infections
- Wound management – including traumatic wound management.

## **Non Acute**

- Patients who present with a non acute condition will be managed by the nurse practitioner. Consultation with a SMO will occur as required.

Including presentations such as:

- Wound dressings
- Splinting
- Reviews

## Referral

The nurse practitioner role includes assessment and management of clients using nursing/midwifery knowledge and skills and may include but is not limited to:

- The direct referral of clients to other health care professionals
- Prescribing medications
- Requesting diagnostic investigations

At the Mackay Base Hospital Emergency Department the nurse practitioner is able to refer patients for public specialist inpatient or outpatient review after discussion with the SMO as per the existing department practice.

Currently in Australia nurse practitioners do not have access to a Medicare provider number. Consequently, until this changes, a referral from a nurse practitioner may cause patient financial disadvantage. To ensure that patients are not financially disadvantaged all private referrals from the nurse practitioners at Mackay Base Hospital Emergency Department will be completed in collaboration with a SMO with a provider number.

The nurse practitioner will refer to a medical officer in the following situations:

- Persistent signs and symptoms despite treatment
- Symptomatic or laboratory evidence of previously unidentified, decreased or decreasing function of any vital organ or system
- Signs of recurrent or persistent infection
- All potential life threatening situations
- When a patient's condition deteriorates unexpectedly
- When further clinical input is required to safely manage the patient

## Diagnostic Medical Imaging

### Radiology

- All plain film radiology
- Ultrasound

Nurse practitioners may request plain film diagnostic radiography and ultrasound as relevant to the patient condition being assessed/ treated.

### Pathology

The nurse practitioner may request pathology tests as relevant to assist with planning patient treatment within the guidelines of the department's existing policies.

## Pharmacological Therapy

- Choice of pharmacological therapy must be guided by the Therapeutic Guidelines and Australian Medicines handbook, within the parameters of the Integrated Standard Drug List for employees for Queensland hospitals and Queensland Health policies and procedures. Any proposed deviation should be referred to the Senior Medical Officer.
- The Consultant/ General Practitioner is the lead clinician for the coordination of the patients care and thus any new medications, titration of medications and recommended discontinuation of medications must be communicated to them.
- The nurse practitioner must verify that the choice of drug is suitable for the patient after carefully considering the following individualised patient information:
  - Age
  - Previous allergies
  - Adverse drug reactions
  - Co-morbidities such as renal and hepatic dysfunction
  - Concomitant medications for potential drug interactions
  - Pregnant and or lactating women.

The Queensland Health Safe Medication Unit has identified specific medications and patient groups where extra precautions are necessary. These groups are listed below and must be considered carefully when selecting drug treatment to avoid adverse medication events.

### **High risk medications**

- Drugs with a narrow therapeutic range i.e. digoxin, lithium
- Drugs requiring specialised monitoring or interpretation i.e. therapeutic dose monitoring
- Anticoagulants
- Cytotoxics
- NSAIDs or COX-2 inhibitors
- Opiate analgesics
- Aminoglycosides
- Anti-epileptics
- Insulin
- IV electrolyte supplementation
- Weekly dosing regimens i.e. methotrexate

### **High Risk Patient Groups**

- Renally impaired
- Cardiac disease
- Liver disease
- Transplantation
- Mental health problems
- Cancer
- Paediatrics
- Elderly
- Pregnant and breast feeding

Currently in Australia, nurse practitioners do not have access to the pharmaceutical benefits scheme. Consequently, until this changes a prescription from a nurse practitioner may cause the patient financial disadvantage. To ensure that patients are not financially disadvantaged, arrangements for dispensing of the nurse practitioner prescriptions are as follows:

- Patients will be requested to present their prescription at the Mackay Base Hospital pharmacy. If the patient is unable to do this they will be given a script written by a medical officer with a prescriber number to ensure they are not financially disadvantaged.
- A copy of the approved HMP/DTP must be available in the pharmacy for identification and signatory purposes.

## Pharmacological Therapy:

1. Anti-infectives
2. Analgesics
3. Anaesthetic agents
4. Antiemetics
5. Fluid therapy
6. Corticosteroids
7. Respiratory
8. Vaccinations/Antivenoms
9. Antispasmodics, Laxatives and Antidiarrheals
10. Anti-histamine
11. Miscellaneous/ Emergency Treatment

## 1. Anti-infectives

Generic Name	Form	Indication, Dose Schedule and Duration of Drug Supply
Amoxicillin Trihydrate	Capsules	AMH section 5.1.8
Amoxicillin Trihydrate; with Potassium Clavulanate	Tablet	AMH section 5.1.8
Amoxicillin Trihydrate; with potassium Clavulanate (Augmentin Duo Forte)	Tablets	AMH section 5.1.8
Cephalexin	Capsules	AMH section 5.1.3
Dicloxacillin Sodium	Caps	AMH section 5.1.8
Doxycycline	Tablets	AMH section 5.1.11
Erythromycin	Tablets or Capsule	AMH section 5.1.6
Flucloxacillin Sodium	Capsules	AMH section 5.1.8
Metronidazole	Tablets	AMH section 5.1.7
Penicillin: Phenoxymethyl	Tablet	AMH section 5.1.8
Roxithromycin	Tablet	AMH section 5.1.6
Trimethoprim	Tablet	
Ampicillin sodium	Vials	AMH section 5.1.8
Benzylpenicillin Sodium	Vials	AMH section 5.1.8
Cephalothin	Vials	AMH section 5.1.3
Cephazolin	Vials	AMH section 5.1.3
Ceftriaxone	Vials	AMH section 5.1.3
Flucloxacillin	Vials	AMH section 5.1.8
Locacorten-Vioform Flumethasone Pivalate and Clioquinol	Ear Drops	AMH section 9.1.2
Sofradex (Framysetin, Dexamethasone, Gramicidin)	Ear Drops	AMH section 9.1.2
Chloramphenicol 0.5%	Eye Drops	AMH section 11.1.3
Mupirocin	Ointment	
Miconazole 2%	Cream	AMH section 5.2.1
Probenecid	Tablet	AMH section 15.3- to increase and prolong plasma levels of Penicillins and Cephalosporins

## 2. Analgesics

Generic Name	Form	Indication, Dose Schedule and Duration of Drug Supply
Paracetamol	Tablet	AMH section 3.1
Ibuprofen	Tablet	AMH section 15.1.1
Paracetamol 500mg/ Codeine 8mg	Tablets	AMH section 3.1 & 3.2
Paracetamol 500mg/Codeine 15mg	Tablets	AMH section 3.1 & 3.2
Paracetamol 500mg/Codeine 30mg	Tablets	AMH section 3.1 & 3.2
Codeine Phosphate	Tablets	AMH section 3.2
Paracetamol Suppository	Suppository	AMH section 3.1
Indomethacin	Suppository	AMH section 15.1.1
Indomethacin	Tablet	AMH section 15.1.1
Ketorolac	Injection	AMH section 15.1.1
Oxycodone Schedule 8	Tablet	AMH section 3.2
Morphine Schedule 8	Injection	AMH section 3.2
Fentanyl Schedule 8	Injection	AMH section 3.2
Oxygen/Nitrous Oxide	Gas	AMH section 2.2

## 3. Anaesthetic Agents

Generic Name	Form	Indication, Dose Schedule and Duration of Drug Supply
Levobupivacaine Hydrochloride	Injection	AMH section 2.5.1
Lignocaine Hydrochloride 1%	Injection	AMH section 2.5.1
Lignocaine 1% with Adrenaline 1:100,000	Injection	AMH section 2.5.1
Lignocaine 2%	Injection	AMH section 2.5.1
Oxybuprocaine	Eye drop	AMH section 11.5.3

#### 4. Antiemetics

Generic Name	Form	Indication, Dose Schedule and Duration of Drug Supply
Metoclopramide	Tablet	AMH section 12.3.1
Metoclopramide Hydrochloride	Injection	AMH section 12.3.1
Prochlorperazine Maleate	Tablet	AMH section 12.3.1
Prochlorperazine Maleate	injection	AMH section 12.3.1

#### 5. Fluid Therapy

Generic Name	Form	Indication, Dose Schedule and Duration of Drug Supply
Sodium Chloride 0.9% in 1 litre	Solution	Written order in ED only not to exceed 2 litres
Electrolyte Replacement Powder	Powder for reconstitution	Packet of 10 – requires script for the purpose of the hospital pharmacy processes
Electrolyte ice blocks	Ice blocks	Packet of 10- requires script for the purpose of the hospital pharmacy processes

#### 6. Corticosteroids

Generic Name	Form	Indication, Dose Schedule and Duration of Drug Supply
Hydrocortisone 1%	Cream	AMH section 8.1.1
Hydrocortisone	Injection	AMH section 14.5.2
Prednisolone	Tablet	AMH section 14.5.2

#### 7. Respiratory

Generic Name	Form	Indication, Dose Schedule and Duration of Drug Supply
Salbutamol	Inhaler	AMH section 19.1.1
Salbutamol	Solution	AMH section 19.1.1
Ipratropium-Bromide	Solution	AMH section 19.1.2

### 8. Vaccine and Immunoglobulin

Generic Name	Form	Indication, Dose Schedule and Duration of Drug Supply
Diphtheria tetanus toxoid (Adult ADT)	Injection	AMH section 20.1
Tetanus Immunoglobulin	Injection	AMH Appendix A- Tetanus Immunoglobulin
RH (D) immunoglobulin	Injection	AMH Appendix A-For the use in RH (D) negative females who have experienced bleeding in the first trimester of pregnancy

### 9. Antispasmodic agent, Laxatives and Antidiarrhoeals

Generic Name	Form	Indication, Dose Schedule and Duration of Drug Supply
Sodium Citrate 450mg, sodium laurel sulfoacetate 45mg, sorbitol 3125mg, sorbic acid- Microlax Enema (or equivalent)	Squeeze bottle	AMH section 12.4.3
Paraffin liquid – Agarol (or equivalent)	Liquid	AMH section 12.4.3
Hyoscine Butylbromide	Tablets	AMH section 12.2
Hyoscine Butylbromide	Injection	AMH section 12.2
Loperamide	Tablets	AMH section 12.5.1

### 10. Anti Histamine

Generic Name	Form	Indication, Dose Schedule and Duration of Drug Supply
Promethazine	Tablet	AMH section 12.3.2
Promethazine	Injection	AMH section 12.3.2 (written order in ED)

### 11. Miscellaneous/ Emergency Treatment

Generic Name	Form	Indication, Dose Schedule and Duration of Drug Supply
Adrenaline	Injection	AMH section 1.1 (written order in ED- emergency use only)
Glucose 50%	Injection	AMH section 10.1 (written order in ED- emergency use only)
Glucagon	Injection	AMH section 10.1.3 (written order in ED- emergency use only)
Benztropine	Injection	AMH section 16.2.2 (written order in ED- emergency use only in an acute dystonic reaction)
Gastrogel antacid (or equivalent) Combination antacid	Liquid	AMH section 12.1.1 (written order in ED)
Gastrogel with Xylocaine Viscous Combination antacid and lignocaine	Liquid	AMH section 12.1.1 & 2.5.1 (written order in ED)
Naloxone	Injection	AMH section 4.2

## References

Australian Medicines Handbook. 2008. Online, <http://amh.hcn.net.au>

Queensland Health and Royal Flying Doctor Service, 2007. 5<sup>th</sup> Edition. *Primary Clinical Care Manual*. Queensland Health, QLD.

Queensland Health. 2007. Standard Drug List (SDL)  
<http://www.health.qld.gov.au/qhcss/mapsu/documents/sdl.pdf>

Therapeutic guidelines: Analgesia. 2007. Online, <http://etg.hcn.net.au>

Therapeutic Guidelines: Antibiotics: Antibiotics. 2006. Online, <http://etg.hcn.net.au>

**HMP/DTP Developed by:**

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<b>Effective Date:</b>	
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