

## Nurse Delegated Emergency Care Nurse Management Guidelines

**Summary** This Guideline contains 15 specific Nurse Management Guidelines (NMGs), which direct all clinical care provided in the Nurse Delegated Emergency Care (NDEC) model. It should be used by Registered Nurses (RNs) credentialed to practice NDEC in facilities where NDEC is authorised.

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## **NURSE DELEGATED EMERGENCY CARE (NDEC) NURSE MANAGEMENT GUIDELINES (NMG)**

### **PURPOSE**

The Nurse Management Guidelines (NMGs) direct all clinical care in the Nurse Delegated Emergency Care (NDEC) model. NDEC is designed to provide timely, quality care for patients presenting to Emergency Departments (EDs) in rural and remote areas with low risk, low acuity conditions. Under this model the care of these patients is delegated by the facility's Medical Officer/s to specially trained and credentialed registered nurses (RNs).

The NMGs guides appropriately trained and credentialed RNs to undertake assessment, investigation, intervention and discharge of patients presenting to EDs with specific less-urgent conditions.

### **KEY PRINCIPLES**

This Guideline should be used by NSW Health facilities and Local Health Districts that have implemented the NDEC model. The NDEC Nurse Management Guidelines must be used in Emergency Departments where the NDEC model operates in accordance with Section 1.5 of *PD2015\_024 Standing Orders for the Supply or Administration of Medication under the NDEC Model* and with local modes of implementation.

### **USE OF THE GUIDELINE**

This Guideline should be used by RNs accredited to practice NDEC, in accordance with the NDEC Education and Accreditation Framework. The Guideline must only be used in facilities where NDEC is approved and for patient presentations that meet the strict inclusion criteria. Local Health Districts should ensure relevant staff have ready access to these guidelines.

### **REVISION HISTORY**

<b>Version</b>	<b>Approved by</b>	<b>Amendment notes</b>
May 2017 (GL2017_009)	Deputy Secretary, Population and Public Health	New guideline

### **ATTACHMENTS**

1. Nurse Delegated Emergency Care (NDEC) Nurse Management Guidelines (NMGs): Guideline.

**Nurse Delegated Emergency Care (NDEC)  
Nurse Management Guidelines (NMG)**



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## **1. BACKGROUND**

### **1.1. About this document**

This Guideline contains 15 specific Nurse Management Guidelines (NMGs), which direct all clinical care provided in the Nurse Delegated Emergency Care (NDEC) model. It should be used by Registered Nurses (RNs) credentialed to practice NDEC in facilities where NDEC is authorised.

NDEC has been developed to improve the care of patients presenting to Emergency Departments with minor illnesses / injuries, and to support the rural clinical workforce in small Emergency Departments (ED). The Model defines the components of safe and quality care for selected low-acuity conditions, and outlines governance, education, credentialing and quality assurance processes so that an episode of care may be delivered entirely by an accredited RN. A robust clinical governance framework supports care provision when the patient presents, even when no medical officer is available at the site, under a delegated care model.

To be credentialed to practice NDEC, Registered Nurses must fulfil the requirements of the NDEC Education and Accreditation Framework, including satisfactory completion of the education modules, and competency assessment.

The NMGs have been developed and reviewed by a representative group of NSW clinicians with expertise in emergency care, paediatric care, general practice and rural health.

Further information about NDEC can be found at  
<https://www.aci.health.nsw.gov.au/networks/eci/clinical/ndec>.

### **1.2. Legal and legislative framework**

This Guideline is to be used in conjunction with the following policy documents: PD2013\_043 *Medication Handling in NSW Public Health Facilities*; PD2014\_025 *Departure of Emergency Department Patients*, and; PD2015\_024 *Standing Orders for the Supply or Administration of Medication under the NDEC Model* in instances where a Nurse Management Guideline indicates the use of medications.

### **1.3. Key features of the Nurse Delegated Emergency Care (NDEC) model**

Nurse Delegated Emergency Care (NDEC) is designed to provide timely, quality care for patients presenting to EDs in rural and remote areas with less urgent, low risk conditions. Under this model the care of these patients is delegated by the facility's Medical Officer / s to specially trained and credentialed registered nurses. In a defined range of patient care episodes, NDEC-accredited nurses are authorised to undertake assessment, investigation, intervention and discharge, following detailed protocols and guidelines. Key features of NDEC include:

- Patients are assessed against strict inclusion criteria
- If inclusion criteria are not met then a medical review must be sought

- If the patient's care can be provided through NDEC, the RN may provide nursing interventions to manage symptom relief. The patient may then be discharged with specific follow up instructions
- Follow up is offered to the patient by returning to the ED or attending a local GP clinic. The patient also receives a follow up phone call within 24 hours to check on their status
- NDEC may operate in a facility 24/7, or as an after-hours model or when no GP is available
- The nurse can opt out of the model if concerned about a patient's condition

## **2. IMPLEMENTATION**

### **2.1. Implementation Requirements**

NDEC can only be only implemented with express support and cooperation from the facility's Medical Officer / s, HSM/NUM and LHD. Operating the NDEC model is within the scope of practice of a Registered Nurse. To be credentialed to practice NDEC, RNs must fulfil the requirements of the NDEC Education and Accreditation Framework, including satisfactory completion of the education and competency assessment. Qualification or endorsement as an Advanced Practice Nurse or Nurse Practitioner is not required.

Key prerequisites for the implementation of the NDEC include:

- Express support of care delegation and co-operation in implementing the model from the site General Practitioner(s), Health Service Manager / Nurse Unit Manager and Local Health District Executive is required
- Submission of NDEC Site Nomination Form to the Agency for Clinical Innovation Emergency Care Institute NSW (ECI). Endorsement by the NDEC Steering Committee is required for sites to work with the ECI to support implementation
- Pre-implementation education needs assessment
- Pre-implementation "Snapshot" audit of Emergency Department (ED) presentations pertinent to NDEC
- Pre-implementation staff survey
- Pre-implementation patient survey
- Pre-implementation audit covering existing clinical practice standards related to:
  - Patient assessment
  - Patient symptom management
  - Disposition practices
  - Documentation
  - Nursing staff competency and confidence with core nursing skills required for NDEC implementation
- Establishment of a local governance structure

- RN training and credentialing in the NDEC Model of Care (MoC) nursing skills
- Review and local endorsement of Nurse Management Guidelines (NMG)
- Endorsement of Standing Orders by Local Health District (LHD) Drug and Therapeutic Committee
- Adaption of the paper based NDEC documentation to FirstNet electronic medical record (eMR) if applicable
- Authorisation and communication of the NDEC “go-live” decision.

## **2.2. Credentialing of Registered Nurses for NDEC**

Operating the NDEC model is within the scope of practice of a Registered Nurse. To be credentialed to practice NDEC, RNs must fulfil the requirements of the NDEC Education and Accreditation Framework, including satisfactory completion of the education and competency assessment. Qualification or endorsement as an Advanced Practice Nurse or Nurse Practitioner is not required.

Credentialing requires NDEC RNs to demonstrate ongoing evidence of recency of practice using NDEC, and ongoing safe use of NDEC through clinical practice audits. In addition to specific training requirements, the following mandatory education must be completed:

- Emergency Triage Education Kit program (or equivalent)
- NSW Ministry of Health Acute Paediatric Clinical Practice Guidelines on-line
- Between the Flags, D.E.T.E.C.T. & D.E.T.E.C.T Jnr.
- NDEC mapped core skills review

Further information can be found in the NDEC Education and Accreditation Framework:

<https://www.aci.health.nsw.gov.au/networks/eci/clinical/ndec/ndec-education-and-accreditation>

## **2.3. Review Process**

The ECI will conduct regular reviews of the NDEC clinical practice materials through its Clinical Advisory Committee and NDEC Steering Committee, in line with its standard review schedule for clinical resources. Implementation sites can initiate review or revision of NDEC materials through ECI clinical governance processes. NDEC Patient Care Resources have been reviewed by the:

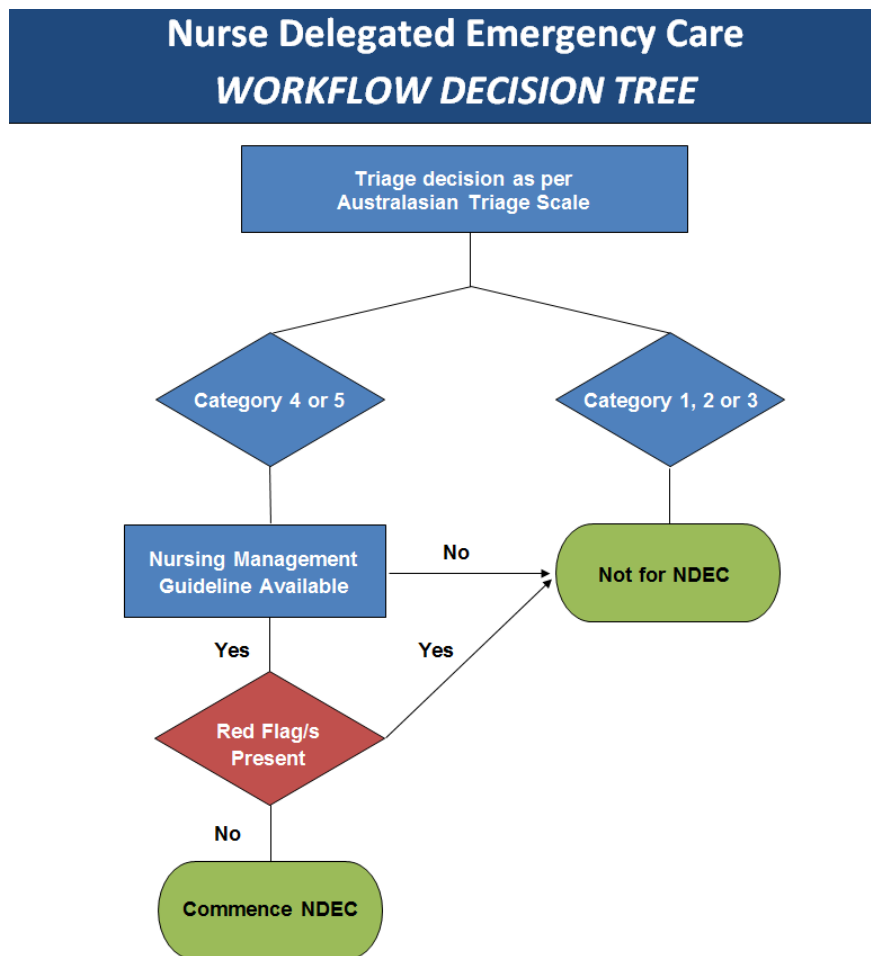
- ECI Executive Committee
- NDEC Steering Committee
- CEC Medication Safety Expert Advisory Committee
- LHD Drug and Therapeutics Committees

The ECI will provide NDEC sites with appropriate resources and education as reviews and updates occur. Individual sites will be responsible for updating local hard copy

resources and completing reviews of local Standing Orders in accordance with PD 2013\_043 *Medication Handling in NSW Public Health Facilities*.

## 2.4. Using the Nurse Management Guidelines

The following diagram represents the decision process an NDEC RN undertakes when considering a patient for NDEC.



All of the NMGs have a common format with the following features:

- Red Flags** (exclusion criteria) – the presence of any Red Flag immediately indicates the patient is not suitable for NDEC and that ‘usual care’ needs to be applied
- Additional Observations** and / or **Additional History** that is required
- Management Principles** outline the interventions that are in the scope of NDEC such as relief of pain or other symptoms, removal of foreign bodies, wound dressing or soft-tissue injury management
- Resources / Further References** provide additional information and evidence to support the practices described in the NMG

### **3. LIST OF ATTACHMENTS - NURSE MANAGEMENT GUIDELINES**

#### **3.1. BURNS (Minor) Nurse Management Guideline**

##### **RED FLAG EXCLUSION CRITERIA**

- ❑ Child at risk of significant harm
- ❑ Suspected non-accidental injury
- ❑ Unplanned repeat ED presentation
- ❑ Infant  $\leq$  12 months
- ❑ High risk mechanism of injury
  - ❑ Confined space
  - ❑ Electrical injury
  - ❑ Chemical burn
  - ❑ Flash burn
  - ❑ Lightning strike
  - ❑ Airway and / or facial burns
  - ❑ Concomitant trauma
- ❑ Stridor, sore throat, hoarse voice, sooty sputum
- ❑ Burns to hands, feet, perineum, genitalia, over major joints or circumferential
- ❑ Singed facial hair, eyebrows, eyelashes or nasal hair
- ❑ Partial or full thickness burns in an adult  $\geq$  10% body surface area
- ❑ Partial or full thickness burns in a child  $\geq$  5% body surface area
- ❑ Pregnancy with cutaneous burns
- ❑ Significant co-morbidity
- ❑ Immune suppression
- ❑ History of workplace injury
- ❑ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

## ADDITIONAL OBSERVATIONS

- \* If limb affected, conduct a full set of neurovascular observations
- \* Calculate body surface area affected and depth of tissue injury (see [ACI State-wide Burn Injury Service Minor Burn Management 2015](#) p.4)

## ADDITIONAL HISTORY

1. Establish mechanism of injury
  - \* How was the burn sustained
  - \* Date and time of burn
2. First-aid treatment initiated prior to ED presentation
  - \* What was done
  - \* How long was it done for
  - \* Was clothing and / or jewellery removed
3. Tetanus immunisation status

## MANAGEMENT PRINCIPLES

1. Jewellery (rings / watches etc.) must be removed from affected limb (cut jewellery if required)
2. Limb should be elevated
3. Continue or commence first-aid measures: cool burn with cool running water (not cold / ice) for at least 20 minutes. Cooling can be effective up to 3 hours after injury

Do not apply ice to burns either directly or indirectly

4. Provide analgesia as required according to pain scale. Refer to [Pain \(any cause\)](#) NMG
5. For an epidermal burn **only** (e.g. minor sun burn), a suitable skin moisturiser (e.g. sorbolene cream) will usually suffice for treatment
6. **For mid-dermal, deep dermal or full thickness burns**, consult with a medical officer and NSW Specialist Burns Unit before applying any cream or ointment
7. Consider photographing burn injury after obtaining appropriate patient consent (see [ACI State-wide Burn Injury Service Burn Patient Management](#) p. 22)
8. Cover burn with appropriate dressing as guided by [ACI State-wide Burn Injury Service Minor Burn Management 2015](#) p. 9
9. Consider consultation with a NSW Specialist Burns Unit for advice
10. Document assessment finding, interventions and outcomes

## REFERENCES / FURTHER RESOURCES

1. ACI (2015) *Minor Burn Management: ACI State-wide Burn Injury Service Agency for Clinical Innovation*, Sydney  
[http://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0005/162635/Minor\\_Burn\\_Management\\_2015.pdf](http://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0005/162635/Minor_Burn_Management_2015.pdf)
2. ACI (2014) *Clinical Practice Guidelines: Burn Patient Management: ACI Statewide Burn Injury Service Agency for Clinical Innovation*, Sydney  
[http://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0009/250020/Burn\\_Patient\\_Management - Clinical Practice Guidelines.pdf](http://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0009/250020/Burn_Patient_Management_-_Clinical_Practice_Guidelines.pdf)

## Contact Details for NSW Specialist Burns Units

Children's Hospital Westmead (paediatric patients):

9845 1850 (business hours)

9845 1114 (after hours)

Concord Repatriation General Hospital (adult patients):

9767 7775 (business hours)

9767 7776 (after hours)

Royal North Shore Hospital (adult patients):

9926 7988 (business hours)

9926 8941 (after hours)

### 3.2. EARACHE Nurse Management Guideline

#### RED FLAG EXCLUSION CRITERIA

- ❑ Child at risk of significant harm
- ❑ Suspected non-accidental injury
- ❑ Unplanned repeat ED presentation
- ❑ Child ≤ 2 years
- ❑ Aboriginal or Torres Strait Islander child (as per GL2014\_023)
- ❑ Hearing loss
- ❑ Discharge from ear
- ❑ History of direct trauma (including blunt trauma) to ear
- ❑ Vomiting
- ❑ Dizziness
- ❑ Persistent fever
- ❑ History of workplace injury
- ❑ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

#### MANAGEMENT PRINCIPLES

1. Provide analgesia as required according to pain scale. Refer to [Pain \(any cause\)](#) NMG
2. History of live insect in ear; gently instil olive oil or lignocaine 1% into affected ear which will result in reduced pain and discomfort and drowns the insect (see [lignocaine 1% Standing Order](#) for dose)  
DO NOT attempt to syringe the ear or attempt to remove insect –  
refer to medical officer if further treatment is needed
3. Document assessment findings, interventions, investigations and outcomes

#### REFERENCES / FURTHER RESOURCES

1. NSW Children's Hospitals Network (2012) *Earache Factsheet* NSW Children's Hospitals Network  
<http://kidshealth.schn.health.nsw.gov.au/sites/kidshealth.schn.health.nsw.gov.au/files/fact-sheets/pdf/ear-problems-children.pdf>
2. ECI – *Patient Factsheet – Ear Infections in Adults*  
[https://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0010/273925/ear-infections-in-adults-ed-patient-factsheet-nov-2014dit.pdf](https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0010/273925/ear-infections-in-adults-ed-patient-factsheet-nov-2014dit.pdf)

- 
3. NSW Health (2014) GL2014\_023 *Infants and Children, Otitis Media: Acute Management of Sore Ear, Second Edition*  
[http://www0.health.nsw.gov.au/policies/gl/2014/GL2014\\_023.html](http://www0.health.nsw.gov.au/policies/gl/2014/GL2014_023.html)  
<http://www.healthinonet.ecu.edu.au/other-health-conditions/ear/resources-and-equipment/otitis-media-guidelines>
  4. The Royal Children's Hospital Melbourne (2016) *Acute Otitis Media Clinical Practice Guideline* [http://www.rch.org.au/clinicalguide/guideline\\_index/Acute\\_Otitis\\_Media/](http://www.rch.org.au/clinicalguide/guideline_index/Acute_Otitis_Media/)

### 3.3. EYE PROBLEMS (Foreign Body) Nurse Management Guideline

#### RED FLAG EXCLUSION CRITERIA

- ❑ Child at risk of significant harm
- ❑ Suspected non-accidental injury
- ❑ Unplanned repeat ED presentation
- ❑ Known or suspected penetrating eye injury
- ❑ Chemical burn (acid or alkaline)
- ❑ Loss of vision
- ❑ History of metallic foreign body  $\geq 24$  hours and / or rust ring evident
- ❑ Periorbital swelling or cellulitis
- ❑ Situations which preclude the RN from completing a thorough eye examination e.g. non-compliant patient
- ❑ History of workplace injury
- ❑ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

#### ADDITIONAL OBSERVATIONS

- \* Assess patient's visual acuity bilaterally; with and without visual aids. Where available, document findings using NSW Health [Eye Emergencies Form \(SMR 040.200\)](#) or the *Patient Care - Eye Examination* ad-hoc chart within FirstNet.

#### ADDITIONAL HISTORY

- \* Tetanus immunisation status

#### MANAGEMENT PRINCIPLES

1. Remove patient's glasses or contact lenses prior to administration of eye drops
2. Instil [amethocaine](#) 0.5% or 1.0% anaesthetic eye drops (1-2 drops; see standing order)
3. Administer ongoing analgesia as indicated by pain score. See [Pain \(any cause\)](#) NMG
4. If foreign body present (non-penetrating), attempt to irrigate or touch off with moistened cotton-tip
5. When irrigation is indicated, irrigate with 1L of neutral solution (0.9% saline, Hartmann's)
6. Use [fluorescein](#) drops to stain eye (1-2 drops; see standing order)

7. After staining eye, use cobalt blue light source (slit lamp preferred) to assess for minor corneal or subconjunctival abrasions
8. If indicated, instil [chloramphenicol](#) eye drops and provide ongoing treatment discharge instructions (see standing order)
9. Document assessment finding, interventions, investigations and outcomes; ideally using [NSW Health Eye Emergencies Form \(SMR 040.200\)](#) or the *Patient Care - Eye Examination* ad-hoc chart within FirstNet if available

*NOTE: Never give local anaesthetic drops to the patient to take home*

## REFERENCES / FURTHER RESOURCES

1. ECI - *Patient Factsheet – Something in Your Eye*  
[https://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0019/273412/something-in-your-eye-patient-factsheet.pdf](https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0019/273412/something-in-your-eye-patient-factsheet.pdf)
2. NSW Health (2009) *Eye Emergency Manual (2<sup>nd</sup> Ed.)* NSW Ministry of Health, Sydney  
[http://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0013/155011/eye\\_manual.pdf](http://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0013/155011/eye_manual.pdf)
3. Eye exam resources from the Emergency Care Institute  
<http://www.ecinsw.com.au/Eyes>
4. Further detailed ophthalmology resources available from the ACI  
<http://www.aci.health.nsw.gov.au/networks/ophthalmology>

### 3.4. FOREIGN BODY Nurse Management Guideline

#### RED FLAG EXCLUSION CRITERIA

- ❏ Child at risk of significant harm
- ❏ Suspected non-accidental injury
- ❏ Unplanned repeat ED presentation
- ❏ Rectal / genital foreign body
- ❏ Actual or suspected ingestion or inhalation of foreign body
- ❏ Large or protruding foreign bodies (do not remove; stabilise if possible)
- ❏ Foreign bodies close to eyes
- ❏ Deeply embedded foreign bodies
- ❏ Presence of neurovascular compromise
- ❏ Wounds that appear infected (red, inflamed, discharging)
- ❏ History of workplace injury
- ❏ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

#### ADDITIONAL OBSERVATIONS

- \* If limb affected, conduct a full set of neurovascular observations.

#### ADDITIONAL HISTORY

- \* Description of object/s
- \* Number of foreign bodies - estimated or actual
- \* Anatomical location/s
- \* Tetanus immunisation status

#### MANAGEMENT PRINCIPLES

1. Provide analgesia as required as per pain scale. Refer to [Pain \(any cause\)](#) NMG.
2. Clean external area of any wound/s with sterile water or 0.9% sodium chloride.
3. Attempt to remove small, superficial foreign bodies with a sterile needle and / or sterile fine forceps – if removal is unsuccessful discontinue NDEC and escalate to medical officer.
4. Apply dressing/s where appropriate.
5. Consider administration of Tetanus Toxoid as per immunisation history and [Tetanus Toxoid Standing Order](#).
6. Document assessment findings, interventions, investigations and outcomes.

## REFERENCES / FURTHER RESOURCES

1. ECI - *Patient Factsheet – Something in Your Eye*  
[https://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0019/273412/something-in-your-eye-patient-factsheet.pdf](https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0019/273412/something-in-your-eye-patient-factsheet.pdf)
2. Chan, C., Salam, G.A., (2003) *Splinter Removal* American Family Physician 67 (12)  
<http://www.aafp.org/afp/2003/0615/p2557.html>
3. Wagstrom Halaas G. (2007) *Management of Foreign Bodies in the Skin* American Family Physician 76 (5)  
<http://www.aafp.org/afp/2007/0901/p683.pdf>
4. ECI – *Patient Factsheet – Skin Cuts and Scrapes*  
[https://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0018/273420/skin-cuts-and-scrapes-ed-patient-factsheet-2015.pdf](https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0018/273420/skin-cuts-and-scrapes-ed-patient-factsheet-2015.pdf)

### **3.5. MINOR HEAD INJURIES Nurse Management Guideline**

#### **RED FLAG EXCLUSION CRITERIA**

- ❑ Child at risk of significant harm
- ❑ Suspected non-accidental injury
- ❑ Unplanned repeat ED presentation
- ❑ Infant ≤ 12 months
- ❑ Adult > 65 years
- ❑ Other body regions injured
- ❑ Open or penetrating injury
- ❑ Moderate or high risk mechanism:
  - ❑ Any accident involving a motorised vehicle or other high-speed mechanism
  - ❑ Pedestrian/cyclist struck by vehicle
  - ❑ Focal blunt trauma (bat, ball, foot)
- ❑ Fall > 1 metre
- ❑ GCS < 15 on arrival to ED or at any time in ED
- ❑ Loss of consciousness:
  - ❑ Child - any
  - ❑ Adult - > 5 minutes
- ❑ Post-traumatic amnesia > 30 minutes
- ❑ Seizures immediately prior to, or any time post injury
- ❑ Mild agitation or altered behaviour
- ❑ Abnormal drowsiness
- ❑ Any focal neurological deficit
- ❑ Clinical suspicion of a possible skull fracture
- ❑ More than 1 vomit post injury
- ❑ Headache:
  - ❑ Child - any
  - ❑ Adult - severe or persistent
- ❑ Coagulopathic / bleeding disorder (including warfarin, clopidogrel, aspirin or new oral anticoagulant [NOAC] use)
- ❑ Drug or alcohol ingestion
- ❑ History of workplace injury
- ❑ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

## ADDITIONAL OBSERVATIONS

- \* Neurological observations including GCS, pupil size, pupil response to light, limb movement, limb strength must be completed on all patients
- \* For patients  $\geq 16$  years, within 24hrs of a suspected closed head injury and a GCS of 13-15, commence [Abbreviated Westmead Post Traumatic Amnesia Scale \(A-WPTAS\)](#) assessment

## ADDITIONAL HISTORY

- \* Establish mechanism of injury
  - \* How injury was sustained
  - \* Date & time of injury
- \* First aid / NSW ambulance treatment prior to arrival

## MANAGEMENT PRINCIPLES

1. Provide analgesia as required according to pain scale. Refer to [Pain \(any cause\)](#) NMG
2. Patient receives hourly observations as per additional observations above for 4 hours as a minimum
3. If any deterioration in patient condition is detected then medical officer must be immediately notified
4. If the patient requires increasing amounts of analgesia to manage their pain, notify the medical officer
5. Patient must be discharged into the care of a responsible adult or carer
6. Provide patient / carer with head injury discharge information in addition to discharge letter
7. Document assessment findings, interventions and outcomes

## REFERENCES / FURTHER RESOURCES

1. NSW Motor Accidents Authority (2008) *Patient Factsheet - Mild Head Injury Advice* [http://www.maa.nsw.gov.au/\\_data/assets/pdf\\_file/0008/12104/MTBI\\_Patient\\_Advice\\_Sheet\\_English1.pdf](http://www.maa.nsw.gov.au/_data/assets/pdf_file/0008/12104/MTBI_Patient_Advice_Sheet_English1.pdf)
2. ECI *Patient Factsheet- Headaches (non-migraine)* [https://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0009/273708/headache-non-migraine-ed-patient-factsheet-2015.pdf](https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0009/273708/headache-non-migraine-ed-patient-factsheet-2015.pdf)
3. NSW Health (2010) *Infants and children: Acute management of Head Injury – Clinical Practice Guidelines (2<sup>nd</sup> Ed.) PD2011\_024*. NSW Ministry of Health, Sydney [http://www0.health.nsw.gov.au/policies/pd/2011/pdf/PD2011\\_024.pdf](http://www0.health.nsw.gov.au/policies/pd/2011/pdf/PD2011_024.pdf)

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4. NSW Health (2012) *Closed Head Injury in Adults - Initial Management*  
[PD2012\_013] NSW Ministry of Health  
[http://www0.health.nsw.gov.au/policies/pd/2012/pdf/PD2012\\_013.pdf](http://www0.health.nsw.gov.au/policies/pd/2012/pdf/PD2012_013.pdf)

### 3.6. INSECT BITES AND STINGS Nurse Management Guideline

#### RED FLAG EXCLUSION CRITERIA

- ❏ Child at risk of significant harm
- ❏ Suspected non-accidental injury
- ❏ Unplanned repeat ED presentation
- ❏ Suspected snake bite, Red Back or Funnel Web spider bite
- ❏ Allergic response (any of the following)
  - ❏ Difficulty / noisy breathing
  - ❏ Swelling of lips, tongue, face, eyes
  - ❏ Swelling / tightness in throat
  - ❏ Difficulty talking and / or hoarse voice
  - ❏ Difficulty swallowing
  - ❏ Pain distal from bite / sting site
  - ❏ Vomiting
  - ❏ Abdominal pain
  - ❏ Wheeze or persistent cough
  - ❏ Generalised erythema or urticarial rash
- ❏ Past history of severe allergic reaction or known allergy to an insect bite or sting
- ❏ Signs of envenomation / neurotoxic paralysis (any of the following)
  - ❏ Drooping of eye lids (ptosis)
  - ❏ Decrease / paralysis of eye movements (ophthalmoplegia)
  - ❏ Limb weakness
  - ❏ Respiratory abnormalities
- ❏ History of workplace injury
- ❏ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

(Note separate NMG for [Tick Bite](#) and [Marine Creatures](#))

#### ADDITIONAL OBSERVATIONS

- \* If limb affected, conduct a full set of neurovascular observations

## ADDITIONAL HISTORY

- \* Full history of bite or sting
  - \* Date and time
  - \* Location / size of injury
  - \* Possible perpetrator
  - \* First aid treatment prior to ED including NSW Ambulance
- \* Tetanus immunisations
- \* Consider contacting Poisons Information (13 11 26) for further guidance

## MANAGEMENT PRINCIPLES

1. Remove insect and stinger if still attached to skin
2. When removing stingers, use a sideways scraping motion to avoid further envenomation
3. Inspect patient's clothing and remove any other insects and stingers
4. Apply a cold pack at 20 minute on / off intervals for pain relief and to reduce swelling
5. Provide further analgesia as required according to pain scale – refer to [Pain \(any cause\)](#) NMG
6. Consider administration of Tetanus Toxoid as per immunisation history and [Tetanus Toxoid Standing Order](#)
7. Document assessment findings, interventions and outcomes

## REFERENCES / FURTHER RESOURCES

1. NSW Health (2013) *Snakebite and Spiderbite Clinical Management Guidelines* 3<sup>rd</sup> Edition NSW Ministry of Health,  
[http://www0.health.nsw.gov.au/policies/gl/2014/pdf/GL2014\\_005.pdf](http://www0.health.nsw.gov.au/policies/gl/2014/pdf/GL2014_005.pdf)
2. Australasian Society of Clinical Immunology and Allergy (2013) *Health Professional Information Paper Anaphylaxis* Australasian Society of Clinical Immunology and Allergy Inc., Australia  
[http://www.allergy.org.au/images/stories/anaphylaxis/ASCI\\_A\\_HPIP\\_Anaphylaxis\\_2013.pdf](http://www.allergy.org.au/images/stories/anaphylaxis/ASCI_A_HPIP_Anaphylaxis_2013.pdf)
3. NSW Poisons Information Centre - 131 126 or visit [www.poisonsinfo.nsw.gov.au](http://www.poisonsinfo.nsw.gov.au)

### 3.7. LIMB INJURIES Nurse Management Guideline

#### RED FLAG EXCLUSION CRITERIA

- ❏ Child at risk of significant harm
- ❏ Suspected non-accidental injury
- ❏ Unplanned repeat ED presentation
- ❏ Infant  $\leq 12$  months
- ❏ Neurovascular compromise
- ❏ Overt limb deformity
- ❏ Inability to bear weight on limb or walk 3 steps
- ❏ Injury involving the shoulder or hip
- ❏ History of workplace injury
- ❏ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

#### ADDITIONAL OBSERVATIONS

- \* Conduct a full set of neurovascular observations (as a minimum on arrival and prior to *discharge*)

#### MANAGEMENT PRINCIPLES

1. Jewellery (rings / watches etc.) must be removed from affected limb (cut jewellery if required)
2. Commence **R.I.C.E** treatment
  - \* **Rest:** Patient to rest injured limb
  - \* **Ice:** Apply cold pack for 20 minutes / 2<sup>nd</sup> hourly if injury to limb is  $\leq 48$  hours for analgesia and reduction in swelling
  - \* **Compression:** Apply a firm and supportive crepe bandage to injury
  - \* **Elevate** limb where possible
    - \* Apply sling where appropriate
    - \* Apply splint where appropriate

3. Avoid **H.A.R.M.**
  - \* **Heat** (hot packs, heat rubs etc)
  - \* **Alcohol**
  - \* **Running** (or excessive movement of injured limb)
  - \* **Massage**
4. Provide analgesia as required according to pain scale – refer to [Pain \(any cause\)](#) NMG
5. Provide crutches with appropriate instructions where indicated
  - \* Instruct the patient and / or carer on R.I.C.E. and H.A.R.M. principles for proceeding 72 hours
6. Document assessment findings, interventions and outcomes

## REFERENCES / FURTHER RESOURCES

1. ECI - Patient Factsheet – Ankle Sprain  
[https://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0005/294323/Ankle\\_Sprain\\_ED\\_Patient\\_Factsheet\\_2015.pdf](https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0005/294323/Ankle_Sprain_ED_Patient_Factsheet_2015.pdf)
2. ECI - Patient Factsheet – *Knee Injuries*  
[https://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0010/273655/knee-injuries-patient-factsheet.pdf](https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0010/273655/knee-injuries-patient-factsheet.pdf)

### **3.8. MARINE CREATURES STINGERS OR STINGS Nurse Management Guideline**

#### **RED FLAG EXCLUSION CRITERIA**

- ❑ Child at risk of significant harm
- ❑ Suspected non-accidental injury
- ❑ Unplanned repeat ED presentation
- ❑ Sting from venomous spiny fish, sea urchin or sting ray
- ❑ Wound from oyster shell
- ❑ One or more of the following (signs and symptoms of envenomation / allergy / anaphylaxis)
  - ❑ Non-localised rash
  - ❑ Blurred vision
  - ❑ Muscle weakness
  - ❑ Any facial paralysis
  - ❑ Fever
  - ❑ Headache
  - ❑ Confusion / agitation
  - ❑ Abdominal pain
  - ❑ Nausea or vomiting
- ❑ Presence of a foreign body
- ❑ Penetrating wound involving joints or soft tissue
- ❑ Involvement of face / eyes
- ❑ History of workplace injury
- ❑ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

#### **ADDITIONAL OBSERVATIONS**

- \* If limb affected, conduct a full set of neurovascular observations

#### **ADDITIONAL HISTORY**

- \* Full history of bite or sting
  - \* Date and time
  - \* Location / size of injury
  - \* Possible perpetrator
  - \* First aid treatment prior to ED including NSW Ambulance
- \* Tetanus immunisation status
- \* Consider contacting Poisons Information (13 11 26) for further guidance

## MANAGEMENT PRINCIPLES

1. Provide analgesia as required according to pain scale. Refer to Pain (any cause) NMG
2. Refer to table below for specific creature management principles

Marine Creature	Management	Notes
Jellyfish (non-tropical region <sup>1</sup> )	<ul style="list-style-type: none"><li>* Remove any remaining tentacles</li><li>* Immerse affected area in tolerably hot (45°C) water for up to 20 minutes. Remove for a short time. If symptoms persist, re-immerses for 20 minutes as above in cycles for up to 2 hours</li></ul>	Jellyfish includes 'Blue Bottles'  Tentacle removal does not pose a risk to staff  Hot shower is appropriate
Other	<ul style="list-style-type: none"><li>* Provide analgesia</li><li>* Clean and apply simple dressing to wound if required</li></ul>	

3. Consider administration of Tetanus Toxoid as per immunisation history and Tetanus Toxoid Standing Order
4. Document assessment findings, interventions and outcomes

## REFERENCES / FURTHER RESOURCES

1. Australian Resuscitation Council (2012) *Guideline 9.4.5 Envenomation – Jellyfish Stings* Australian Resuscitation Council, Melbourne  
[http://resus.org.au/?wpfb\\_dl=41](http://resus.org.au/?wpfb_dl=41)
2. NSW Department of Health (2013) *Snakebite and Spiderbite Clinical Management Guidelines* NSW Department of Health, North Sydney  
[http://www0.health.nsw.gov.au/policies/GL/2014/GL2014\\_005.html](http://www0.health.nsw.gov.au/policies/GL/2014/GL2014_005.html)
3. Berling, I. and Isbister, G. (2015) *Marine Envenomations*. Australian Family Physician Volume 44, No.1. East Melbourne  
<http://www.racgp.org.au/afp/2015/januaryfebruary/marine-envenomations/> **Contact**

### Details for NSW Poisons Information Centre

Children's Hospital Westmead:

13 11 26

<http://www.poisonsinfo.nsw.gov.au/>

<sup>1</sup> Tropical jellyfish are generally found north of Bundaberg, Queensland. This Nurse Management Guideline does not cover tropical jellyfish envenomation.

### 3.9. PAIN Nurse Management Guideline

#### RED FLAG EXCLUSION CRITERIA

- ❏ Child at risk of significant harm
- ❏ Suspected non-accidental injury
- ❏ Unplanned repeat ED presentation
- ❏ Infant < 6 months
- ❏ Pain score  $\geq 7$
- ❏ Chest pain
- ❏ Abdominal pain
- ❏ History of workplace injury
- ❏ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

#### ADDITIONAL OBSERVATIONS

Complete formal assessment of pain using one of the following methods:

##### *Numerical Rating Score*

- \* Appropriate for patients aged 6 – 8 years and over
- \* Ask patient to rate pain on scale below (either verbal or point on scale)

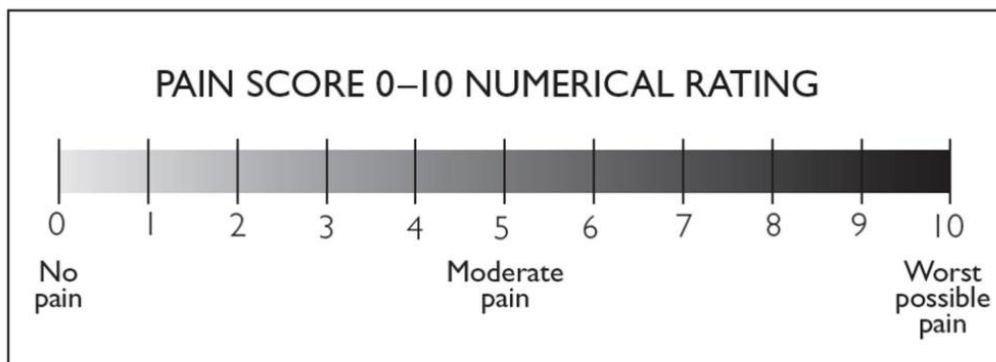


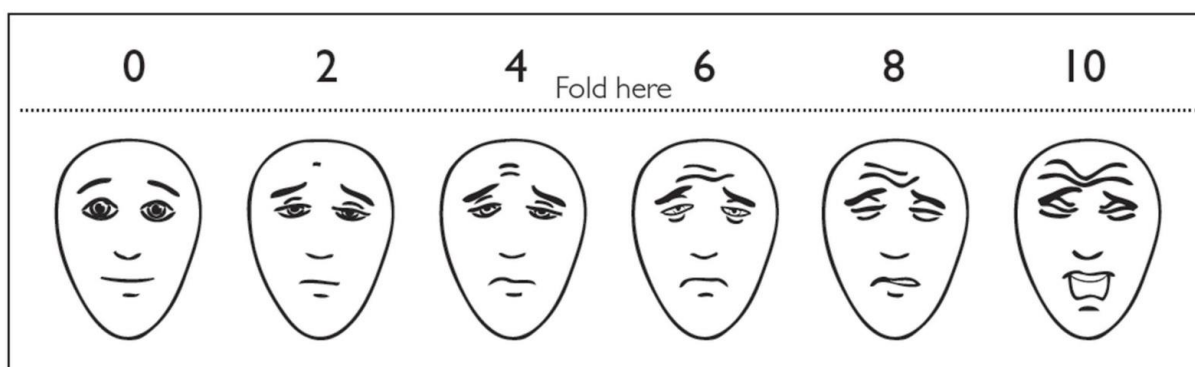
Figure 1 - National Institute of Clinical Studies (2011) Emergency Care Pain Management Manual

##### \* Pain Score Severity

- \* No pain = Pain Score of 0
- \* Mild pain = Pain Score of 1-3
- \* Moderate pain = Pain Score of 4-6
- \* Severe pain = Pain Score  $\geq 7$  (red flag)

### ***Faces Rating Scale***

- \* Can be used for younger children ( $\geq 4$  years). Also work well for people with a culturally or linguistically diverse background (CALD).
- \* Ask patient to choose the face that best describes how they feel



**Figure 2 - National Institute of Clinical Studies (2011) Emergency Care Pain Management Manual / International Association for the Study of Pain**

### ***FLACC Behavioural Pain Assessment Scale***

- \* Can be used for paediatrics between 2 months and 7 years (also CALD)
- \* Each of the 5 aspects is scored from 0–2. Scores are tallied to give a pain score 0–10

	0	1	2
Face	No particular expression or smile	Occasional grimace or frown, withdrawn, disinterested	Frequent to constant frown, clenched jaw, quivering chin
Legs	Normal position or relaxed	Uneasy, restless, tense	Kicking, or legs drawn up
Activity	Lying quietly, normal position, moves easily	Squirming, shifting back and forth, tense	Arched, rigid, or jerking
Cry	No cry (awake or asleep)	Moans or whimpers, occasional complaint	Crying steadily, screams or sobs, frequent complaints
Consolability	Content, relaxed	Reassured by occasional touching, hugging or "talking to", distractible	Difficult to console or comfort

**Figure 3 - National Institute of Clinical Studies (2011) Emergency Care Pain Management Manual / University of Michigan Health System**

## ADDITIONAL HISTORY

- \* Thorough pain assessment
  - \* Circumstances of pain onset / relieving factors
  - \* Location / intensity / radiation / characteristics of pain
  - \* Any other associated symptoms
  - \* Any treatment including previous medications
  - \* Medical / surgical history

## MANAGEMENT PRINCIPLES

1. According to pain scale and medication standing orders, administer [paracetamol](#) or [Panadeine®](#)
  - o Mild pain → [paracetamol](#)
  - o Moderate pain → [Panadeine®](#) or consider administration of [paracetamol](#) and [ibuprofen](#) as per standing orders dosing schedule
2. Under the following circumstances, administer [ibuprofen](#) for mild pain as an alternative to paracetamol
  - o Allergy or contra-indication to paracetamol
  - o Patient has received 1g of paracetamol within the last 4 hours
  - o Patient has received 4g of paracetamol within the last 24 hours
3. If patient has associated nausea, consider administration of an antiemetic as per Standing Orders

[Ondansetron](#) 4mg tablet / wafer

**OR**

For adult patients ≥ 20 years only, administer [metoclopramide](#) with the following considerations

- o **Tablet:** if patient has not vomited in the past hour and is tolerating small frequent amounts of oral fluid
  - o **Parenteral:** if patient is currently vomiting and unable to tolerate small amounts of oral fluid
4. Reassess patient using appropriate pain scale to assess effectiveness of intervention
  5. Document assessment findings, intervention and outcomes.

## REFERENCES / FURTHER RESOURCES

1. ECI – Patient Factsheet – *Pain Management*  
[https://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0006/273516/pain-management-patient-factsheet-0.pdf](https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0006/273516/pain-management-patient-factsheet-0.pdf)
2. ECI – Patient Factsheet – *Back Pain*  
[https://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0008/294326/Acute\\_Low\\_Back\\_Pain\\_ED\\_Patient\\_Factsheet\\_2016.pdf](https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0008/294326/Acute_Low_Back_Pain_ED_Patient_Factsheet_2016.pdf)
3. National Institute of Clinical Studies (2011) *Emergency Care Acute Pain Management Manual* National Health and Medical Research Council, Canberra  
[http://www.nhmrc.gov.au/files/nhmrc/publications/attachments/cp135\\_emergency\\_acute\\_pain\\_management\\_manual.pdf](http://www.nhmrc.gov.au/files/nhmrc/publications/attachments/cp135_emergency_acute_pain_management_manual.pdf)
4. Macintyre P.E. et al (Editors), APM:SE Working Group of the Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine (2010), *Acute Pain Management: Scientific Evidence* (3rd edition), ANZCA & FPM, Melbourne  
<http://www.anzca.edu.au/Documents/Acute-Pain-final-version>

### **3.10. RASH Nurse Management Guideline**







#### **RED FLAG EXCLUSION CRITERIA**



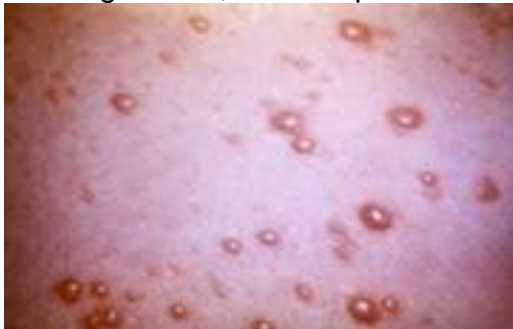
- ❏ Child at risk of significant harm
- ❏ Suspected non-accidental injury
- ❏ Unplanned repeat ED presentation
- ❏ Infant ≤ 3 months
- ❏ Haemorrhagic and / or non-blanching rash
- ❏ Facial and / or neck swelling
- ❏ Swelling inside the mouth
- ❏ Respiratory difficulty or stridor
- ❏ Any associated fever
- ❏ Vomiting or abdominal pain
- ❏ Rash with associated pain
- ❏ Vesicular type rash
- ❏ Suspected, or history of previous, anaphylaxis
- ❏ History of workplace injury
- ❏ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

#### **ADDITIONAL HISTORY**

- \* Description and location/s of rash
- \* Immunisation status
- \* Relevant social and infectious contacts
- \* Current medications
- \* Recent overseas travel – record and flag for follow-up with doctor
- \* Use the following Rash Chart to help identify rash:

## Rash Chart – adapted from Hunter New England Health

<p><b>Eczematous Rash</b> Superficial dermatitis e.g. tinea</p> 	<p><b>Erythematous Rash</b> Redness and inflammation of the skin. Blanches under pressure.</p> 
<p><b>Papular Rash</b> Small raised and solid area of the skin, usually occurring in clusters. Do not contain pus.</p> 	<p><b>Papular Urticarial Rash</b> Raised and itchy patches on the skin e.g. insect bites</p> 
<p><b>Petechial Rash</b> Tiny flat purple or red spots ranging in size from pinpoint to less than 2mm. Does not blanch. ***<u>NOTE: Potential meningococcal rash</u>***</p> 	<p><b>Purpuric Rash</b> Purple or red blotches on the skin. Blotches greater 2 mm to 1 cm in diameter. ***<u>NOTE: Potential meningococcal rash</u>***</p> 

<p><b>Pustular Rash</b> Small raised and solid area of the skin filled with pus.</p> 	<p><b>Urticarial Rash</b> Raised red blotches, welts or weals</p> 
<p><b>Vesicular Rash</b> Raised areas of the skin filled with fluid e.g. blister, chicken pox.</p> 	

## MANAGEMENT PRINCIPLES

1. Give [loratadine](#) (as per Standing Orders) for obvious minor urticarial / allergic rashes and / or itch
2. Provide analgesia as required according to pain scale. Refer to [Pain NMG](#).

*If onset of rash is recent ( $\leq 1$  hour) and possibly of an allergic nature, patient **MUST** be observed in the ED for at least 1 hour for signs of worsening allergic symptoms which may indicate anaphylaxis.*

## REFERENCES / FURTHER RESOURCES

1. Australasian Society of Clinical Immunology and Allergy (2010) *Is it Allergy? The allergic child – early recognition and diagnosis* Australasian Society of Clinical Immunology and Allergy, Balgowlah  
<http://www.allergy.org.au/health-professionals/hp-information/asthma-and-allergy/is-it-allergy>

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2. Australasian Society of Clinical Immunology and Allergy (2010) *Urticaria*  
Australasian Society of Clinical Immunology and Allergy, Balgowlah  
<http://www.allergy.org.au/health-professionals/hp-information/asthma-and-allergy/urticaria>
  3. NSW Health (2011) *Recognition of a Sick Baby or Child in the Emergency*  
*Department Clinical Practice Guidelines (2<sup>nd</sup> Ed.)* PD2011\_038 NSW Department of Health, North Sydney  
[http://www0.health.nsw.gov.au/policies/pd/2011/pdf/PD2011\\_038.pdf](http://www0.health.nsw.gov.au/policies/pd/2011/pdf/PD2011_038.pdf)

### 3.11. RESPIRATORY TYPE ILLNESS Nurse Management Guideline

#### RED FLAG EXCLUSION CRITERIA

- ❑ Child at risk of significant harm
- ❑ Suspected non-accidental injury
- ❑ Unplanned repeat ED presentation
- ❑ Infant  $\leq$  3 months
- ❑ Chest pain
- ❑ Recent overseas travel
- ❑ Leg pain
- ❑ Increased respiratory effort including increased rate
- ❑ Meets case definition criteria for Pandemic Influenza<sup>1</sup>
- ❑ Recent infectious disease contact / communicable disease
- ❑ History of severe asthma
- ❑ History of Chronic Obstructive Pulmonary Disease (COPD)
- ❑ Paediatric patients:
  - ❑ Decreased ability, or inability to feed due to tiring
  - ❑ Respiratory distress assessed as mild, moderate or severe as per Respiratory Distress Table in the Standard Paediatric Observation Chart (ED SPOC)
- ❑ History of workplace injury
- ❑ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

#### ADDITIONAL OBSERVATIONS

1. Assess work of breathing
  - \* Audible breath sounds (grunting, wheeze etc.)
  - \* Respiratory effort
  - \* Use of accessory muscles
  - \* Nasal flaring
2. Auscultate lung fields for normal and abnormal breath sounds and air entry symmetry

<sup>1</sup> [NSW Ministry of Health Pandemic Influenza](#) case definitions are dynamic throughout an influenza season. Refer to specific LHD notifications for the most current Pandemic Influenza definitions.

## ADDITIONAL HISTORY

- \* Events surrounding current illness (e.g. onset and duration of symptoms)

## MANAGEMENT PRINCIPLES

1. Provide analgesia as indicated by pain scale. Refer to *Pain* NMG.
2. Encourage increased oral intake
3. Document assessment findings, interventions and outcomes

## REFERENCES / FURTHER RESOURCES

1. NSW Health (2016) NSW Health Influenza Pandemic Plan NSW Ministry of Health, Sydney  
[http://www0.health.nsw.gov.au/policies/pd/2016/pdf/PD2016\\_016.pdf](http://www0.health.nsw.gov.au/policies/pd/2016/pdf/PD2016_016.pdf)
2. NSW Health (2011) *Recognition of a Sick Baby or Child in the Emergency Department Clinical Practice Guidelines (2<sup>nd</sup> Ed.)* PD2011\_038 NSW Department of Health, Sydney  
[http://www0.health.nsw.gov.au/policies/pd/2011/pdf/PD2011\\_038.pdf](http://www0.health.nsw.gov.au/policies/pd/2011/pdf/PD2011_038.pdf)

### 3.12. TICK BITE Nurse Management Guideline

#### RED FLAG EXCLUSION CRITERIA

- ❏ Child at risk of significant harm
- ❏ Suspected non-accidental injury
- ❏ Unplanned repeat ED presentation
- ❏ One or more of the following (signs and symptoms of envenomation / tick paralysis / allergy / anaphylaxis)
  - ❏ Non-localised rash
  - ❏ Blurred vision
  - ❏ Muscle weakness
  - ❏ Any facial paralysis
- ❏ Fever
  - ❏ Flu-like symptoms
  - ❏ Headache
  - ❏ Abdominal pain
  - ❏ Vomiting
- ❏ Known allergy to tick bites (see below)
- ❏ History of workplace injury
- ❏ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

#### ADDITIONAL OBSERVATIONS

If limb affected, conduct full set of neurovascular observations.

#### ADDITIONAL HISTORY

- \* Allergy to tick bites
- \* Tetanus immunisation status

#### MANAGEMENT PRINCIPLES

1. If the patient has a history of allergic reactions to tick bites, seek medical support. In these individuals ticks should be removed as soon as possible, but **only by a doctor and where resuscitation facilities are readily available.**
2. Otherwise, remove tick if still present – see below. Manual removal of ticks by forceps is the only method recommended by NSW Health.

### **Tick Removal**

- \* Using fine tipped tweezers or forceps, grasp tick as close to the patient's skin as possible.
- \* Using a smooth, steady upward motion pull tick straight out of skin (don't bend or twist while removing)
- \* Avoid other methods of removal such as methylated spirits or using heat to make the tick detach from the skin.

Note the favoured sites for ticks are behind ears, back of head, groin, axilla and back of knees.

3. After removal, clean area where tick was located with appropriate antiseptic solution.
4. Cold compress can be applied to reduce pain and swelling.
5. Administer analgesia as per [Pain \(any cause\) NMG](#) if required.
6. Provide patient with [Ticks Patient Factsheet](#).
7. Advise patient to seek immediate medical advice if severe pain, headache, fever, aching joints, abdominal pain and / or vomiting develops.

Figure 4 - NSW Ministry of Health Tick Alert



### **REFERENCES / FURTHER RESOURCES**

1. Australian Resuscitation Council (2012). *Guideline 9.4.3 Envenomation - Tick Bites and Bee, Wasp and Ant Stings* Australian Resuscitation Council, Melbourne  
<http://resus.org.au/guidelines/>
2. Centers for Disease Control and Prevention (2012) *Ticks* Centers for Disease Control and Prevention, Atlanta <http://www.cdc.gov/ticks/>
3. Needham, G.R. (1985) *Evaluation of five popular methods for tick removal* Pediatrics 75(6):997-1002 <http://www.ncbi.nlm.nih.gov/pubmed/4000801>
4. Department of Health (2015) *Tick bite prevention Factsheet* Australian Government Department of Health, Canberra  
<http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-tick-bite-prevention.htm>

- 
5. NSW Health (2013) *Ticks* NSW Ministry of Health, Sydney  
<http://www.health.nsw.gov.au/environment/pests/parasites/Pages/ticks.aspx>
  6. Pitches, D.W. (2006) *Removal of ticks: a review of the literature* Euro Surveill 11(33)  
<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=3027>

### 3.13. URINARY SYMPTOMS Nurse Management Guideline

#### RED FLAG EXCLUSION CRITERIA

- ❑ Child at risk of significant harm
- ❑ Possible sexual assault
- ❑ Suspected non-accidental injury
- ❑ Unplanned repeat ED presentation
- ❑ Child ≤ 12 years
- ❑ Macroscopic haematuria
- ❑ Symptoms for > 7 days
- ❑ Pregnancy with gestation ≥ 19 weeks
- ❑ Loin pain
- ❑ Abdominal distention / tenderness / pain
- ❑ Existing urological abnormality including urological devices (IDC / SPC)
- ❑ Recent urology surgery
- ❑ New onset confusion / altered mentation
- ❑ History of workplace injury
- ❑ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

#### ADDITIONAL OBSERVATIONS

- \* Obtain MSU and complete urinalysis. If positive for leukocytes and / or nitrites retain / send sample for formal pathology analysis as per local protocols.
- \* Add urine βHCG for females of potential child bearing age e.g. 10 – 50 years
- \* Blood glucose level - consult a doctor if result is outside the range 4 to 15 mmol/L.

#### ADDITIONAL HISTORY

- \* For females establish menses cycle

#### MANAGEMENT PRINCIPLES

1. Encourage increased oral fluids
2. For adult patients only, administer [Ural®](#) as per Standing Orders
3. Provide analgesia as required according to pain scale. See [Pain \(any cause\) NMG](#).
4. If urinalysis positive for leukocytes and / or nitrites commence [cephalexin](#) as per Standing Orders and local facility guidelines
5. Document assessment findings, interventions, investigations and outcomes

## REFERENCES / FURTHER RESOURCES

1. ECI - *Patient Factsheet – UTI*  
[https://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0006/332763/UTI\\_ED\\_Patient\\_Factsheet\\_Sept\\_2016.pdf](https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0006/332763/UTI_ED_Patient_Factsheet_Sept_2016.pdf)
2. Agency for Clinical Innovation (2012) ACI Urology Network Nursing Collection of Urine Midstream Guidelines, NSW Agency for Clinical Innovation, Chatswood  
[http://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0005/165920/Collection-of-Urine-Midstream-Toolkit.pdf](http://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0005/165920/Collection-of-Urine-Midstream-Toolkit.pdf)
3. Bhat, R.G., Katy, T.A., Place, F.C. (2011) *Pediatric Urinary Tract Infections* Emergency Medicine Clinics of North America 29 (2011) 637-653  
[http://www.emed.theclinics.com/article/S0733-8627\(11\)00038-1/fulltext](http://www.emed.theclinics.com/article/S0733-8627(11)00038-1/fulltext)
4. Norris, D.L., Young, J.D. (2008) *Urinary Tract Infections: Diagnosis and Management in the Emergency Department* Emergency Medicine Clinics of North America 26 (2008) 413-430  
[http://www.emed.theclinics.com/article/S0733-8627\(08\)00029-1/fulltext](http://www.emed.theclinics.com/article/S0733-8627(08)00029-1/fulltext)
5. Best et al (2014) *Diagnosis and management of urinary tract infections in the emergency department*, Emerg Med Prac 2014 Jul; 16(7): 1-23

### 3.14. VOMITING AND DIARRHOEA Nurse Management Guideline

#### RED FLAG EXCLUSION CRITERIA

- ❑ Child at risk of significant harm
- ❑ Suspected non-accidental injury
- ❑ Unplanned repeat ED presentation
- ❑ Child  $\leq 2$  years
- ❑ Adult  $\geq 65$  years
- ❑ Hydration status in adults assessed as moderate ( $\geq 5\%$ ) or severe ( $\geq 10\%$ ) dehydration
- ❑ [Children assessed as having mild \(3%\) dehydration](#) who have failed Trial of Oral Fluid
- ❑ Blood in vomit or stool
- ❑ Green in vomit
- ❑ Vomiting without diarrhoea
- ❑ Abdominal tenderness or distension
- ❑ Increasing / worsening abdominal pain
- ❑ Diabetes
- ❑ Immunocompromised
- ❑ Altered level of consciousness / agitation
- ❑ History of workplace injury
- ❑ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

#### ADDITIONAL OBSERVATIONS

1. Assess hydration status including
  - \* Urine output
  - \* Mucous membranes
  - \* Thirst
  - \* Skin turgor
  - \* Capillary refill
2. Blood glucose level
3. Obtain MSU and complete urinalysis if positive leucocytes or nitrites send for MCS as per local protocols
4. Consider obtaining a stool sample & send for MCS & OCS as per local protocols
5. Commence fluid balance chart

## ADDITIONAL HISTORY

- \* Social / infectious contacts history

## MANAGEMENT PRINCIPLES

1. Gastroenteritis clinical practice guidelines (paediatric or adult) should be used in conjunction with this NMG
2. Commence trial of fluids using a recommended [oral rehydration solution \(ORS\)](#) e.g. Gastrolyte® or Hydralyte™ as per Standing Orders
3. Consider administration of an antiemetic as per Standing Orders

[Ondansetron](#) 4mg tablet / wafer

### **OR**

For adult patients ≥ 20 years only, administer [metoclopramide](#) with the following considerations

- **Tablet:** if patient has not vomited in the past hour and is tolerating small frequent amounts of oral fluid
  - **Parenteral:** if patient is currently vomiting and unable to tolerate small amounts of oral fluid
4. Document assessment findings, interventions, investigations and outcomes

## REFERENCES / FURTHER RESOURCES

1. ECI - *Patient Factsheet – Diarrhoea and Vomiting*  
[https://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0007/294334/Diarrhoea\\_and\\_Vomiting\\_ED\\_Patient\\_Factsheet\\_2015.pdf](https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0007/294334/Diarrhoea_and_Vomiting_ED_Patient_Factsheet_2015.pdf)
2. NSW Health (2014) *Infants and Children: Management of Acute Gastroenteritis Clinical Practice Guideline (4<sup>th</sup> Ed.)*, NSW Ministry of Health, Sydney  
[http://www0.health.nsw.gov.au/policies/gl/2014/pdf/GL2014\\_024.pdf](http://www0.health.nsw.gov.au/policies/gl/2014/pdf/GL2014_024.pdf)
3. NSW Ministry of Health (2012) *Gastroenteritis in an institution: Control Guideline for Public Health Units*, NSW Ministry of Health, Sydney  
<http://www.health.nsw.gov.au/Infectious/controlguideline/Pages/gastro.aspx>
4. Furyk, J.S., Meek, R.A., Egerton-Warburton D. (2015) *Medicines in the treatment of emergency department nausea and vomiting*. The Cochrane Collaboration, London.  
[http://www.cochrane.org/CD010106/ANAEETH\\_medicines-treatment-emergency-department-nausea-and-vomiting](http://www.cochrane.org/CD010106/ANAEETH_medicines-treatment-emergency-department-nausea-and-vomiting)

### 3.15. WOUNDS Nurse Management Guideline

#### RED FLAG EXCLUSION CRITERIA

- ❏ Child at risk of significant harm
- ❏ Suspected non-accidental injury
- ❏ Unplanned repeat ED presentation
- ❏ Infant ≤ 12 months
- ❏ Foreign Bodies (refer to [Foreign Body NMG](#))
- ❏ Burns (refer to [Burns \(minor\) NMG](#))
- ❏ Wound > 3cm in length and/or full dermal thickness
- ❏ Wound/s involving
  - ❏ Eyelids
  - ❏ Lips
  - ❏ Face (other than superficial)
  - ❏ Hands
  - ❏ Genitalia
  - ❏ Joints
  - ❏ External auditory canal
- ❏ Significant bleeding not controlled by direct pressure / compression bandage (excludes minor bleeding / ooze from wound)
- ❏ Neurovascular compromise
- ❏ Loss, decrease of function distal to wound and pain on movement (suspicion of tendon injury)
- ❏ Grossly contaminated wounds
- ❏ Infected or necrotic wounds
- ❏ Animal bite or scratch wound
- ❏ Human bite wound
- ❏ Any penetrating wounds to head, neck or torso
- ❏ Possible concomitant fracture
- ❏ History of workplace injury
- ❏ Yellow or Red Zones observations or additional criteria outlined in the [NSW Health Standard Observation Charts](#)

#### ADDITIONAL OBSERVATIONS

If limb affected, conduct a full set of neurovascular observations

## ADDITIONAL HISTORY

1. Establish mechanism of injury
  - \* How was injury / wound sustained
  - \* Date and time of injury
  - \* Site/s and type of injury (laceration, abrasion)
  - \* General appearance of wound including cleanliness, length, depth and shape of wound
2. First aid treatment initiated prior to ED presentation
3. Tetanus immunisation status

## MANAGEMENT PRINCIPLES

1. Jewellery (rings / watches etc.) must be removed from affected limb (cut jewellery if required)
2. Provide analgesia as required according to pain scale. Refer to [Pain \(any cause\) NMG](#)
3. Apply direct pressure and / or elevate wound where possible to stop bleeding
4. Clean wound/s with sterile water or 0.9% sodium chloride
5. If wound requires simple (non-invasive) closure, apply either
  - a. sterile skin closures (e.g. Steri-Strips™)
  - b. tissue adhesive for clean cut wounds
6. Apply appropriate dressing to wound/s
7. Consider administration of Tetanus Toxoid as per immunisation history and [Tetanus Toxoid Standing Order](#)
8. Document assessment findings, interventions and outcomes

## REFERENCES / FURTHER RESOURCES

1. ECI - *Patient Factsheet – Wound Care*  
[https://www.aci.health.nsw.gov.au/\\_data/assets/pdf\\_file/0019/273313/wound-care-patient-factsheet.pdf](https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0019/273313/wound-care-patient-factsheet.pdf)
2. Cole, E (2003) *Wound management in the A&E department*, Nursing Standard 17, (46) 45-52, Royal College of Nursing, Cardiff  
<http://search.proquest.com.acs.hcn.com.au/health/docview/219842882?pq-origsite=summon>
3. Caton-Richards, M (2011) *Closure of minor wounds with tissue adhesive*, Emergency Nurse, Volume 18(9) pgs. 3-39 February 2011. ISSN: 1354-5752