FRACTURED FEMURS - MANAGEMENT IN ED - SCH

PRACTICE GUIDELINE ©

DOCUMENT SUMMARY/KEY POINTS

- This document provides guidelines for treatment of patients presenting to the Emergency Department with a fractured femur in order to expedite definitive management.
- This document is to be read in conjunction with the following:
  - **Procedural Sedation in the Emergency Department- SCH Practice Guideline**

CHANGE SUMMARY

- New Guideline

Key Points

- Ensure analgesia and/or sedation to achieve pain score less than 3
- Discuss all patients with orthopaedic registrar
- Apply bucks traction by accredited ED Registered Nurses or trained medical officers
- **20/5/21:** Minor review. Amended IN Morphine to IV Morphine, pg5

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1st December 2020	**Review Period:** 3 years
Team Leader:	Nurse Educator	**Area/Dept:** Emergency Department - SCH

READ ACKNOWLEDGEMENT

- All SCH Emergency Department clinical nurses need to read this document
- All SCH medical staff need to read this document.
- ED manager to determine which staff, if any, are to acknowledge they understand the contents of this document.
- Line managers are to maintain records of staff read acknowledgements for quality review and compliance audit processes.

TABLE OF CONTENTS

1 Purpose/Scope 3
2 Responsibilities 3
3 Management 3
4 Pain Management and Sedation 4
5 Escalation of Care 6
6 Application of Bucks Traction 7
7 References 8

1 Purpose/Scope

This document provides guidelines for the management of fractured femurs in the SCH ED in order to expedite definitive management. This guideline has been developed in consultation with orthopaedics

The recommended practice in the SCH emergency departments is that fractured femurs are managed by applying bucks traction. This can be applied by Registered Nurses who have undergone training and accreditation process, or a trained medical officer.

The transition to a more definitive traction such as Modified Hamilton Russell with Thomas Splint should occur after the application of bucks traction.

2 Responsibilities

Management is responsible for ensuring that registered nurses and medical officers who undertake this practice are provided with appropriate knowledge and training.

Related Documents:

This document is to be read in conjunction with the following:

- Procedural Sedation (Link)
- SCHN Traction guidelines (insert link)

3 Management

Triage

Recommended minimum of category 3, higher triage category as clinically indicated

Placement of patient

If known fracture with adequate imaging, transfer patient onto traction bed on arrival *For quick reference of application of traction, use the "Traction Manual" located in Resus Room of SCH ED*

If suspected, place child onto trauma bed to allow for easy medical imaging

Observations

Undertake and document observations including **pain score** neurovascular assessment in the patients BTF

- On arrival and then minimally of 1 hourly (NB: increase frequency of observations as clinically indicated)
- When moving patient
- Prior to any procedure

This Guideline may be varied, withdrawn or replaced at any time.

Investigations

Femoral x-ray and other imaging as indicated

Consultation

Notify orthopaedic registrar, indication for prompt consultation include:

- Open fractures
- Neurovascular injury
- Polytrauma patient
- Complex or multiple femur fracturs

4 Pain Management and Sedation

Pain Assessment:

Use age appropriate assessment tool, for example:

- Alder Hey for all ages
- 2 months to 7 years- FLACC
- Over 4 years- Faces
- Over 7- linear scale
- Cognitive impairment- Revised FLACC

Pain Management:

Children who present with fractured femurs often experience significant pain, it is imperative that appropriate analgesic agents are administered. The type of analgesia used will depend on the severity of the injury, the degree of the pain experience and the underlying medical condition of the child.

Be aware that analgesia can mask the signs of compartment syndrome. Analgesic requirements should be in proportion to the injury that the child has sustained

Options for pain management include, Systemic agents, Nerve blocks and sedation for application of traction

<u>Systemic (refer to AMH Childen's Dosing Companion for doses)</u>

- Mild Pain (1-3)
  - Use Play and physical methods
  - Paracetamol
  - Ibuprofen

- **Moderate Pain (4-7)** (agents as per mild pain) also:
  - Oral oxycodone
- **Severe Pain (8-10)** (agents as per mild and moderate pain) also:
  - IN Fentanyl
  - IV Morphine

Nerve Block (refer to for agents and doses)

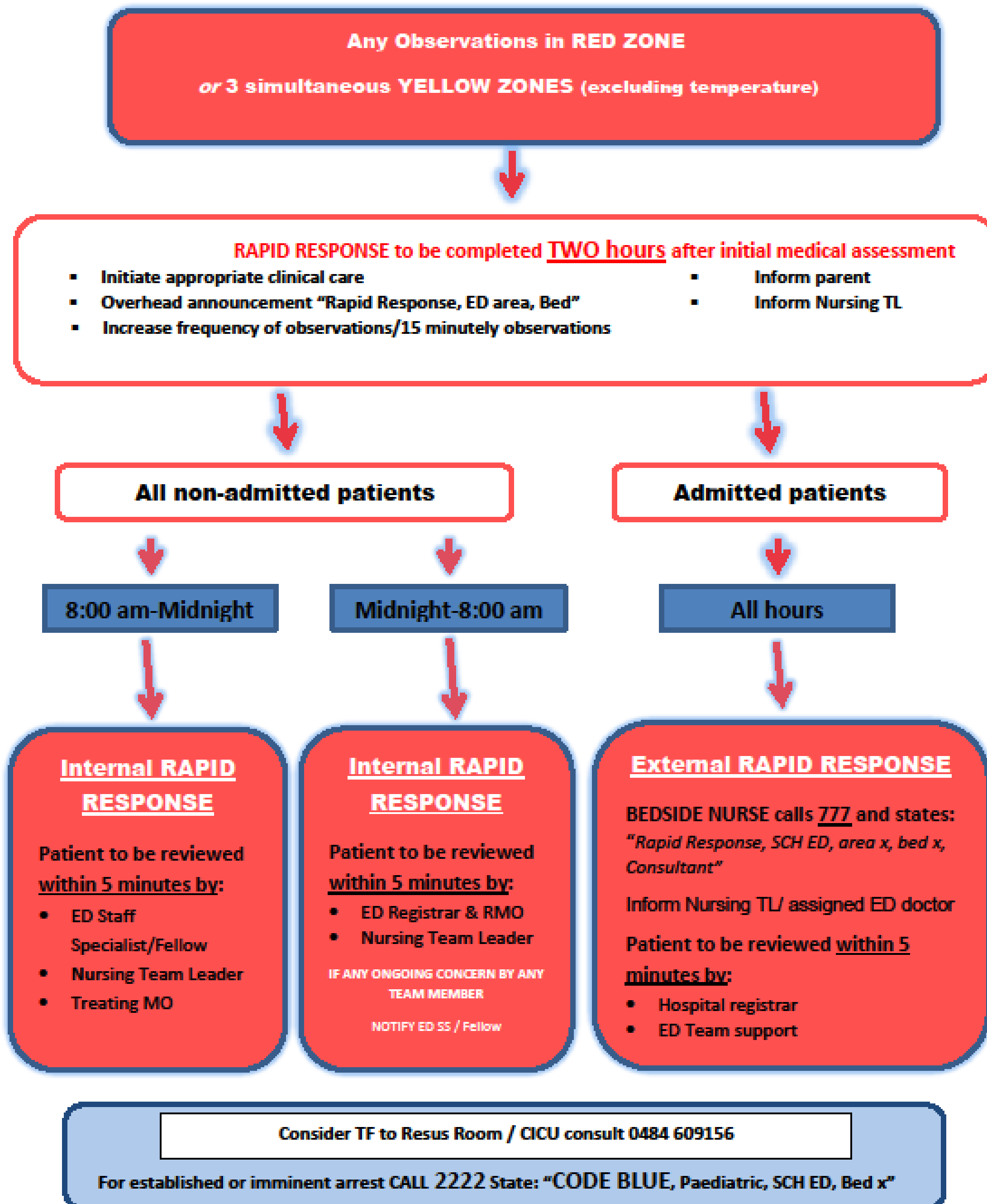
- FIB
- Femoral Nerve Block

Procedural Sedation

- Refer to: Procedural Sedation in the Emergency Department- SCH Practice Guideline

5 Escalation of Care

Escalate care and frequency of observations as per SCH ED CER's.



6 Application of Bucks Traction

Before applying traction ensure:

1) Patient discussed with orthopaedics
2) Appropriate staffing available (consider support from ED SM, anaesthetics, sos, cicu)
3) Equipment available (refer to traction folder in resus room for bed set up and equipment required)
4) Patient prepared
    a. In resus room
    b. Consent obtained
    c. Adequate analgesia,
    d. FIB/ femoral nerve block where possible
    e. Sedation if indicated

Commence Application of traction

1) Pain score less than 3 (additional analgesia should be given if pain score 3 or greater)
2) Relevant staff at bedside (including nursing, medical)
3) Accredited RN or Medical officer to apply bucks traction:
    a. Once patient in traction bed
    b. Skin extensions to be applied just below fracture side
    c. Figure of eight bandage applied to just below knee

For more information refer to the "Traction Manual" located in Resus Room of SCH ED)

STOP at any stage if pain score greater 3 and/or distressed,
(consider additional analgesic/sedation agents)

Post traction care

1) Aim for pain score less than 3
2) Post application x-ray
3) Regular analgesia prescribed
4) Patient returned to baseline observations
5) Hourly observations, including pain score and neurovascular observations
6) Transfer to ward when bed available.
7) Traction can be changed to modified Hamilton Russell with Thomas splint by orthopaedics

See Orthopaedic traction: Care and Management practice Guideline for more information

This Guideline may be varied, withdrawn or replaced at any time.

7 References

1. Orthopaedic Traction: Care and Management

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