Adult Emergency Nurse Protocol

Health
South Eastern Sydney
Local Health District

Hip Pain (suspected #NOF)

SESLHDPR/406

Aim:
- Early identification and treatment of life threatening causes of hip pain – suspected fractured Neck of Femur (NOF), escalation of care for patients at risk.
- Early initiation of treatment / clinical care and symptom management within benchmark time.

Assessment Criteria: On assessment the patient should have one or more of the following signs / symptoms:
- Hip pain post mechanical fall
- Rotation of the leg on the injured side
- Shortening of the leg on the injured side
- Decreased mobility

Escalation Criteria: Immediate life-threatening presentations that require escalation and referral to a Senior Medical Officer (SMO):
- **Trauma Call Criteria***
- Syncope / Collapse
- Neurovascular compromise
- Suspected shaft of femur fracture
- Anticoagulant therapy
- Multiple system injuries

Primary Survey:
- Airway: patency
- Breathing: resp rate, accessory muscle use, air entry, SpO_2.
- Circulation: perfusion, BP, heart rate, temperature
- Disability: GCS, pupils, limb strength

Notify CNUM and SMO if any of the following red flags is identified from Primary Survey and Between the Flags criteria[1]

- Airway – at risk
  - *Partial / full obstruction*
- Breathing – respiratory distress
  - *RR < 5 or >30 /min*
  - *SpO_2 < 90%*
- Circulation – shock / altered perfusion
  - *HR < 40bpm or > 140bpm*
  - *BP < 90mmHg or > 200 mmHg*
  - *Postural drop > 20mmHg*
  - *Capillary return > 2 sec*
- Disability – decreased LOC
  - *GCS ≤ 14 or a fall in GCS by 2 points*
- Exposure
  - *Temperature <35.5°C or >38.5°C*
  - *BGL < 3mmol/L or > 20mmol/L*

History:
- Presenting complaint
- **A**llergies
- **M**edications: Anticoagulant Therapy, Anti-hypertensives, Diabetic meds, Analgesics, Inhalers, Chemotherapy, Non-prescription meds, and any recent change to medications
- **P**ast medical past surgical history relevant
- **L**ast ate / drank & last menstrual period (LMP)
- **E**vents and environment leading to presentation
- Pain Assessment / Score: **PQRST** (Palliating/ provoking factors, Quality, Region/radiation, Severity, Time onset)
- Associated signs / symptoms: hip / pelvic pain, nature of pain / radiation,
- History: history of falls, collapse or cardiac arrhythmias

Systems Assessment:[2-4]

Focused hip and lower limb assessment:
- *Inspection:* Bruises, scars, lacerations, deformities, swelling, symmetry of the pelvis and lower limb (rotation, shortening). If patient is freely mobilising, assess patient stance, gait and walk for symmetry and heal-strike. Observe for C-sign.[5]
- *Palpate:* Palpate for crepitus, pulses and assess for neurovascular compromise.
- *Range of movement* **(stop if pain occurs)**: straight leg raise and flexion/extension.

Explore mechanism of injury and events leading up to injury to guide further patient assessments.

Notify CNUM and Senior Medical Officer (SMO) if any of following red flags is identified from History or Systems Assessment.
- Asymmetrical pelvis
- Hypotension
- Neurovascular compromise
- Unrelieved pain post analgesia
- Urinary retention
- Dislocation of hip
- Elderly > 65 years
- Acute confusion / agitation
- **Sepsis (CEC Sepsis Pathway)***

Investigations / Diagnostics:

Bedside:
- BGL: If < 3 or > 20mmol/L notify SMO
- ECG: [as indicated] look for Arrhythmia , AMI
- Urinalysis / MSU: if urinary symptoms present

Laboratory / Radiology:
- **Pathology**: Refer to local nurse initiated **STOP**
  FBC, UEC, Coags (if anticoagulant therapy)
  Group and Hold (if bleeding suspected or for OT)
  Blood Cultures (if Temp ≤35 or ≥38.5°C)
- **Radiology:** AP Hip / Pelvis X-ray *(CXR if fracture confirmed)*

Nursing Interventions / Management Plan:

Resuscitation / Stabilisation:

- Oxygen therapy & cardiac monitor [as indicated]
- IV Cannulation (consider large bore i.e. 16-18gauge)
- IV Fluids: Sodium Chloride 0.9% 1 litre stat *(discuss with SMO)*

Symptomatic Treatment:

- **Antiemetic:** as per district standing order
- **Analgesia:** as per district standing order
- **IV Fluids:** as per district standing order

Supportive Treatment:

- Nil By Mouth (NBM)
- Monitor vital signs as clinically indicated (BP, HR, T, RR, SpO_2)
- Monitor neurological status GCS as clinically indicated
- Monitor pain assessment / score
- Fluid Balance Chart (FBC)
- Consider IDC for Female with confirmed fractured NOF or males with confirmed fractured NOF and signs of urinary retention
- Monitor neurovascular assessment as clinically indicated *(minimum hourly assessments)*

Practice Tips / Hints:

- Regular re-assessment of the patient's pain, vital signs and neurovascular assessment (minimum standards hourly). Escalate any abnormalities immediately and document the variance, who you escalated to and the treatment plan.
- Position the patient to ensure comfort. Consider ordering a pressure relieving mattress once the patient is admitted.
- Where a fracture is confirmed, consider escalation to a SMO for a Fascio Iliaca Block (FIB) to provide adequate pain relief.
- The patient must remain NBM until otherwise advised by a SMO. NBM patient will require maintenance fluids while NBM.
- Any patient who presents with decreased mobility must have a mobility assessment completed and documented prior to discharge home. Consider the patient's situation and home arrangements are suitable for discharge.
- Ensure admitted or discharge patients have appropriate pain management prior to leaving the ED.

Further Reading / References:

1. SESLHD PR/283 Deteriorating Patient – Clinical Emergency Reposnse system for the Management of Adult and Maternity inpatinets
2. NSW Department of Health (2011). Clinical Initiatives Nurse in Emergency Departments. Education Program. Resource manual. Retrieved on the 22/4/2021from: https://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0010/273979/cin-resource-manual-final-0.pdf
3. Steele, M. T., Stubbs, A. M. (2011). Hip and femur injuries. In J. E. Tintinalli; J. S. Stapczynski; D. M. Cline; O. J. Ma; R. K. Cydulka; G. D., Meckler (Eds). Tintinalli's Emergency Medicine: A comprehensive study guide, 7th ed. Retrieved on the 09/10/2013 from: http://www.accessmedicine.com.acs.hcn.com.au/content.aspx?aID=6391677
4. Thomas Byrd, JW (2007) Evaluation of the Hip: History and Physical Examination. *North American Journal of Sports Physical Therapy*. 2(4): 231-240.
5. Australian Commission on Safety and Quality in Health Care (2016) Hip Fracture Care: Clinical Care Standard. https://www.safetyandquality.gov.au/wp-content/uploads/2016/09/Hip-Fracture-Care-Clinical-Care-Standard_tagged.pdf

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- Murphy, M (2007) Emergency Department Toolkits. Westmead Hospital, SWAHS
- Hodge, A (2011) Emergency Department, Clinical Pathways. Prince of Wales Hospital SESLHD.

Revision & Approval History

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