Pelvic Trauma – Nursing Management in Intensive Care

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Aim

- To conduct a learning needs analysis about education required regarding pelvic trauma nursing management in the local ICU.
- Critically explore the nursing management of pelvic trauma patients in the local Critical Care Unit.

Background

- Serious incident with a post-pelvic fixation patient in the local ICU, leading to permanent femoral nerve damage.
- Critical care nurses have a major role on managing pelvic trauma patients.1
- Continuous assessment and early recognition of signs / symptoms of deterioration related to pelvic trauma.1
- 42 of 170 critical care band 5 to 7 nurses from a 31 bedded ICU were interviewed regarding:
  - Knowledge of complications of pelvic trauma;
  - Confidence on the safe management of a pelvic trauma patient;
  - Resources of information.
- Learning need regarding management of pelvic trauma patients identified in local ICU.

Literature

- Pelvic fractures are potentially life-threatening injuries.1
- Mortality rates vary from 5% to 60%, depending on the type of pelvic ring fracture and severity of associated injuries.1,12
- High energy force can disrupt the integrity of veins, arteries and bones of the pelvic ring, leading to exsanguination and death.1,2
- High mortality rates (60 – 70%) related to open pelvic fractures, as a result of the loss of the self-tamponade effect.10,13
- 2/3 of patients with pelvic and acetabular fractures have other significant injuries (e.g. intra-abdominal injuries).1
- Neurological damage is a major source of permanent disability after unstable pelvic fractures (20 – 33%).4,7,8

Nurses have a fundamental role in the assessment and monitoring, providing an early identification of potentially life-threatening situations or deterioration in a patient’s condition.14

- Psychological Support 4
- Neurovascular 4,7,8
- Wound Care 15
- Pressure Area 4
- Position / Mobility 15
- Nutritional 15
- Pain 15
- Cardiovascular 1,3,15

Potential Complications

- Disruption of veins, arteries, and bones of the pelvic ring 1
- Exsanguination and death 1
- Paralytic ileus 5
- Laceration of colon 9
- Neurological damage - lumbosacral plexopathy 9 and damage of femoral nerve (post pelvic fixation) 3
- Genitourinary injuries (laceration of bladder and urethra) 8
- Thromboembolic disease 14
- Risk of infection (pin sites and surgical wounds) 15
- Pressure damage 9
- Pain 15
- Psychological stress 15

Recommendations

- Development of guidelines regarding the management of pelvic trauma patients.
- Creation of risk assessment form.
- Education sessions tailored to new / junior staff and professional updates for senior staff.
- Liaison with trauma ward, specialist trauma nurse and orthopaedic consultant for advice.
- Creation of trauma link role nurse within critical care.

References