

From the Archives.....

Articles of interest - a selection of critiques from the orthopaedic nursing literature published in *Breaking News*.

**Published Issue 6 2006**

**Harvey, C. (2005). Wound Healing. *Orthopaedic Nursing*. 24(2) 143-157**

Wound healing in orthopaedics can often be a challenge. Not only do we have to contend with the nature of the trauma/surgery, but also with the implants we use for our management plans. These include joint prostheses, internal and external fixation devices. It is well known that bone infections are difficult to heal.

Harvey talks about the principles of wound healing that include promoting a healthy host (the patient) as well as promoting an environment that encourages natural skin healing.

Harvey introduces her article with a brief overview of the anatomy of the skin. She then discussed the physiology of wound healing, describing the phases of wound healing. A diagram of the cascade of wound healing events is also included.

A discussion of the factors that can affect wound healing is helpful in understanding the process and factors such as age, nutrition, lifestyle, medications and risk predictors (such as pressure areas) are discussed.

There are three areas of wound classification that are included in the article are:

Intentional/unintentional

Closed/open

Orthopaedic wounds/grafts

Harvey discusses wound staging, most often applied to pressure sores.

A section is devoted to wound assessment which is essential to provide baseline information. Nursing implications are discussed.

A chart on quick guide to wound dressing function can be useful in a busy work environment.

Harvey identifies the essentials of skin/wound care as being primary support of the host and preventative measures to maintain skin integrity. If a wound does occur, the principles of wound care involve identification and elimination of infection, removal of necrotic tissue, filling of dead space, management of excessive drainage maintaining a moist environment and protection of the wound and surrounding skin.

**Published Issue 7 2006**

**Hart, E., Albright, M., Rebello, G. and Grottkau, B. (2006). Broken bones. Common Paediatric Fracture Part 1. *Orthopaedic Nursing* 25(4), 251-256.**

This article provides an introduction to paediatric fractures. Pictures throughout the article show clearly some of the differences in the paediatric musculoskeletal system.

There is a brief overview on embryology and early development, essential to understand when nursing these young patients. Of course with children, growth plate injuries are of significant concern.

The authors describe the Salter-Harris classification of growth plate injuries which helps the reader to understand the healing process and potential complications.

It is unfortunate that child abuse is becoming increasingly common and this issue is raised as a red flag by the authors with the emphasis on reporting those injuries which are suspicious.

#### **Published Issue 9 2006**

**Kobziff, L. (2006). Traumatic Pelvic Fractures. *Orthopaedic Nursing* 25 (4), 235-243.** Pelvic fractures present a big challenge when we are planning our care. American statistics indicate that mortality can be up to 30% with unstable fractures with 10-12% of this being due to blood loss.

This article discusses the anatomy of the pelvis and presents some good anatomical drawings that show nervous, circulatory and ligamentous structures contained within the pelvic ring. Diagnostic investigations are discussed. Two systems of pelvic fracture classification are also discussed, the Young and Burgess classification which groups fractures by mechanism of injury and the Tile's classification which is based on the stability of the ring and the integrity of the posterior sacroiliac complex.

There are drawings that illustrate the Young-Burgess classification.

Surgical fixation is discussed, with both internal and external methods being explored.

Nursing management is discussed with an emphasis on the nurse's role in assessing patients for potential complications. The nurse needs to be aware of the potential for other injuries to have occurred.

Postfixation care included the need to watch for complications. These include bleeding, infection, PE, DVT and pneumonia. Pain management is critical in the management of these patients as it helps with early mobilisation and preventing complications.

Associated injuries include aortic tears, bladder and/or urethral trauma and nerve injury. Other injuries associated with pelvic injuries include closed head injuries, long bone fractures and peripheral nerve injury.

#### **Published Issue 10 2006**

**Flynn, S. & Whitehead, E. (2006). An exploration of issues related to nurse led clinics. *Journal of Orthopaedic Nursing*, 19(2), 86-94**

This article examines some of the issues related to nurse-led clinics. The topics discussed are patient satisfaction, the role of the nurse practitioner, the concept of caring, nurse led clinics, nurse education and patient education.

This article does not have a specific orthopaedic focus, but I believe we have the potential to develop nurse led clinics within our speciality.

Nurse led clinics need to offer a quality of care which is acceptable to the individual patient regardless of the speciality service they are using.

#### **Published Issue 11 2006**

**Hart, E., Grottkau, B., Rebello, G. & Albright, M. (2006). Broken Bones: Common Pediatric Upper Extremity Fractures- Part 2.**

This article discusses some of the most common fractures of the upper extremity in children. With Christmas coming up and all those new toys to test drive, we stand to see quite a bit of these injuries over the next few weeks.

The fractures identified in this article include clavicle fractures, proximal humeral fractures, elbow fractures, supracondylar fractures, distal radial fractures and hand fractures including scaphoid, phalanx and metacarpal injuries.

The treatment options for these fractures are discussed as are the mechanisms of injury. Some of these injuries present some difficulties. In elbow fractures, diagnosis can be challenging in the immature skeleton. To diagnose these, the clinician must have a sound knowledge of the six ossification centres to be able to distinguish them from fractures. Supracondylar fractures are also challenging and this type of fracture in children has a high rate of complications. The mechanism of injury appears complex, involving a FOOSH with hyperextension of the elbow forcing the olecranon into the olecranon fossa with the distal fragment usually dislocating posteriorly. There are classifications of supracondylar fractures using Gartland's 1959 system. Treatment options vary according to the classification.