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Assessment and management of hand and wrist fractures

NS141 Larsen D (2002) Assessment and management of hand and wrist fractures. *Nursing Standard*. 16, 36, 45-53. Date of acceptance: April 15 2002.

Aims and intended learning outcomes

The aim of this article is to examine the causes, assessment, treatment and psychosocial needs of patients attending A&E departments with hand or wrist fractures. The issues related to X-ray requests by nurses and provision of analgesia under patient group direction (Larsen 2001) will also be discussed.

After reading this article you should be able to:

- Describe the normal anatomy of the hand and wrist.
- Discuss the assessment process for hand and wrist injuries.
- Identify issues relating to X-ray requests by nurses and authorisation of analgesia under patient group direction.
- Outline the treatment of common hand and wrist fractures.
- Reflect on the role and responsibilities of nurses discharging patients with hand and wrist fractures.

Introduction

Musculoskeletal problems account for an estimated 3.5 million attendances at A&E each year (Wardrope and English 1998). Injuries to the hand and wrist are common presentations in A&E departments, and while these are rarely life-threatening, incorrect diagnosis and management can have serious consequences for patients, to such an extent that their livelihoods and/or activities of daily living are threatened. The treatment of hand injuries varies, but the main consideration should always take into account the patient's occupation, age and hand dominance. The primary focus of any treatment is to achieve optimal restoration of function, and the quality of treatment given in the A&E department can significantly influence the patient's outcome (Wilson *et al* 1997).

TIME OUT 1

Understanding the normal anatomy is essential to enable accurate assessment of the hand and wrist. Before reading on, review the anatomy of the hand and wrist, paying particular attention to the bones. Familiarise yourself with the following anatomical terms: distal, proximal, anterior, posterior, medial, lateral, volar and dorsal.

Anatomy of the hand and wrist

Anatomically, the hand is a complex structure with extensive muscles, tendons, ligaments and a vascular and nerve supply that enable us to perform many highly specialised functions, for example, writing and playing the piano. It is outside the scope of this article to discuss the muscles and ligaments in the hand and wrist.

Digits Each finger consists of three bones collectively known as the phalanges (Figure 1):

- Distal phalanx: furthest away – tip of the finger.
- Middle phalanx.
- Proximal phalanx: closest to the hand.

The thumb has two bones only: a distal and a proximal phalanx. Digits must always be named and not numbered to avoid any confusion, especially

In brief

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Summary
Injuries to the hand and wrist are common, and incorrect diagnosis and management can have catastrophic consequences for patients. This article discusses the causes, assessment, treatment and psychosocial needs of patients with hand or wrist fractures.

Key words
- A&E nursing
- Fractures
- Nursing: care

These key words are based on subject headings from the British Nursing Index. This article has been subject to double-blind review.

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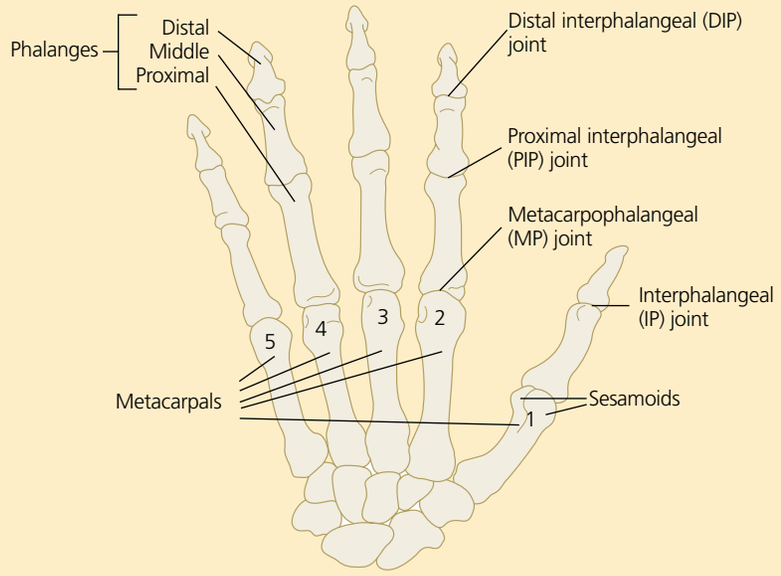
Orthopaedics

Figure 1. Bones of the hand and wrist

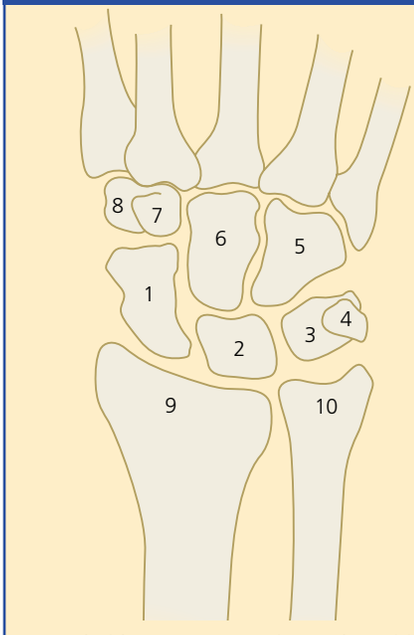


The five digits must be named using the following terminology: thumb, index, middle, ring, little

as the index finger is the second digit, but the first finger (Guly 1996).

The joints between the phalanges are named according to which bones they connect to (Figure 1): the distal interphalangeal (DIP) joint is the joint between the distal and the middle phalanx, and the proximal interphalangeal (PIP) joint is that between the middle and the proximal phalanx. The thumb has one joint only, known as the interphalangeal joint. Strong ligaments, known as the collateral ligaments support each joint, stabilising the joints and restricting movement.

Figure 2. Bones of the wrist



1. Scaphoid; 2. Lunate; 3. Triquetral; 4. Pisiform; 5. Hamate; 6. Capitate; 7. Trapezoid; 8. Trapezium; 9. Radius (distal); 10. Ulna (distal)

Hand The metacarpals form the hand (Figure 1), and can either be numbered (1st metacarpal) or described according to their digit, making the 1st metacarpal the thumb metacarpal and the 5th metacarpal the little finger metacarpal and so on (Guly 1996). The metacarpals are long bones, consisting of a head, shaft and a base. The head of the metacarpal is often referred to as the knuckle by patients, and is the bony prominence on the back of the hand (dorsal aspect). The joints between the metacarpals and the fingers/thumb, are called the metacarpophalangeal (MCP) joints (Figure 1). The anatomical position of the hand and forearm is obtained with the elbows straight and the palm of the hand facing outward.

Wrist The wrist is formed by the carpal bones and the distal ulna and radius (Figure 2). The carpal bones are arranged in two rows, except the scaphoid bone, which bridges the two rows. The distal row contains the trapezium, capitate and hamate bones. The proximal row contains the lunate, triquetral and pisiform bones (Holt 2000). Ligaments connect the carpal bones and keep them in place, while restricting movement. The joint between the carpal bones and the base of the metacarpals is know as the carpometacarpal (CMC) joint. The distal ulna and radius form the final part of the wrist. Collateral ligaments support the wrist on both sides.

The ulna is thinner than the radius and forms the medial side (towards the middle when the arm/hand is held in the anatomical position) of the forearm, and the olecranon at its proximal end (elbow). The radius is found on the lateral (away from the midline – outside) aspect of the forearm. It is larger than the ulna at the wrist, but narrows proximally, where it forms the radial head at the elbow.

The styloid processes are the bony prominences on the back of the wrist, with the ulna styloid process being the most prominent.

TIME OUT 2

- Observe the palmar (volar) aspect of your fingers. Using the skin creases as landmarks, identify the distal interphalangeal and the proximal interphalangeal joints.
- On the back of your hand (dorsal aspect), identify and palpate each of the metacarpal bones, including the thumb metacarpal.
- Identify the ulna and radial styloid processes, and trace the ulna and radius to the elbow. Observe how the ulna forms the olecranon.

The hand has a rich blood supply from the radial and ulna arteries. All patients attending A&E with hand and wrist injuries must have their vascular status assessed (Box 1). Three nerves supply the hand: the ulna, median and radial nerves. It is important to assess the tip of each digit for sensation. A cold hand with absent or reduced pulses accompanied with intense pain might indicate ischaemia and/or embolus. These patients must be seen by a doctor immediately.

Box 1. Vascular assessment of the hand and wrist

- Assess the vascular and nerve function in the hand, palpate the radial and ulnar pulses in the wrist
- Check the capillary refill in each digit. It must be <2 seconds. Compare each hand for warmth
- Check touch sensation in each digit

Assessment

Most patients attending A&E departments are assessed by a nurse on arrival. The initial assessment should be rapid, but concise. It has been suggested that the triage nurse should not be involved with other clinical aspects of the patient's care, for example, recording full observations, if this hinders the effectiveness of the system (Woolwich 2000) However, the initial assessment should include a detailed account of the mechanism of the injury, and patient's main complaint, even though the patient might be asked the same questions by medical staff or the ENP (Guly 1996). This might lead to repetition, but Guly (1996) points out that the triage nurse often has more experience than a junior A&E doctor, and could potentially identify more serious or complicated injuries. In addition, it could be argued that artificial separation of nursing and medical documentation is wasteful, as it all relates to the same patient care episode.

The most important aspect of the assessment is to identify the patient's main complaint. While there are several tools available to assist history taking and decision making, an adaptation of the system used in musculoskeletal medicine (Wardrope and English 1998) is useful for the assessment of bony injuries:

- History taking.
- Examination.
- Initial management.

History taking

The patient's clinical history should include:

- Mechanism of injury.
- Symptoms.
- Previous injury and pertinent past medical history.

Mechanism of injury You can never ask too much about the mechanism of injury, and it is useful to use the when, where, how, why and what happened next questions to obtain this information (Guly 1996). When did it happen? Obtain the exact time to distinguish between acute and chronic problems. State the number of hours or days since injury. Do not write 'last Tuesday', as this will mean very little some time later. Also, you might need to consider alternative wound closing methods, if there is a delay in attendance at A&E. Be aware of an older looking bruise, especially in children if parents claim the injury has just happened. Could this be a non-accidental injury?

Where did the injury happen? Was it a work-related injury? If so, there might be health and safety issues involved. Injuries sustained in the garden might carry a risk of tetanus if the skin is broken.

Try to ascertain how and why it happened. Did the patient trip and fall or did he or she have syncope? If the patient fell, how did he or she land? Ask the patient to demonstrate the position with the non-injured hand. Was it a work-related injury? Did the patient wear protective gloves? The nurse is in an ideal situation to provide safety information on work-related injuries to patients and families. This might also be a good opportunity for health promotion. Does the patient have a high alcohol intake? If so, does he or she need help? Was the patient assaulted? If so, by whom? This might be important when discharging the patient. Is he or she safe to go home? Be aware of non-accidental injuries to children and other vulnerable patients, for example, older people.

Asking the patient what happened next enables the nurse to establish a pattern of events and elicits information about first aid treatment. Did the patient with scalds to the hands immerse them in cold water?

Symptoms Asking the patient to state the symptoms, and the order they emerged, can be helpful. For example, sudden loss of function might indicate a more severe injury than a progressive loss (Wardrope and English 1998). Common signs and symptoms of hand and wrist fractures include (Wilson *et al* 1997, Guly 1996):

- Swelling – this may be excessive and threaten the function of the hand. Swelling that develops rapidly is often an indication of a more severe injury than swelling that occurs more slowly, for example overnight (Nurse and Rimmer 2002).
- Bruising – this might not be present initially. Be aware of older bruises to the hand. This can be caused by pooling of blood from a proximal fracture/injury, such as the elbow.

- Deformity – some injuries can cause severe deformity to the wrist or hand. The 'classic' Colles fracture often has a a 'dinner fork' appearance to the wrist. Another easily recognised deformity includes dislocation of a finger. Always compare with opposite hand/wrist.
- Reduced range of movement – any trauma to the hand and wrist can result in reduced range of movement, caused by swelling, pain or often a combination of both.
- Pain – the hand is a highly sensitive area and any trauma is likely to cause pain.

Previous injury and pertinent past medical history Previous injuries to the hand and wrist might have left the patient with reduced function. For example, previous damage to the ulnar nerve may result in the so-called claw hand, where the patient is unable to straighten the little and ring finger (Moore 1992). Some systemic diseases might also manifest themselves with signs and symptoms in the hand. Gout, although most commonly seen in the big toe, can be present in the hand (Wardrope and English 1998), whereas splinter haemorrhage in the nails can indicate subacute infective endocarditis (White 2002).

TIME OUT 3

Examine the triage notes below. Are you able to identify what, when, where, how and why the injury occurred, and what happened next? If not, what additional information is needed?

Triage notes: A 70-year-old woman fell onto her right hand. Seen by GP. Now pain and swelling is worse. Came to A&E department. Lives alone.

Examination

When examining hand and wrist injuries, it is important to develop a systematic approach to prevent missed injuries. Wardrope and English (1998) recommend that the standard orthopaedic examination system should be used. This includes:

- Examining the joint above the injury.
- Looking.
- Feeling.
- Moving.

Joint above For wrist and hand complaints, the examination should begin at the elbow, as some mechanisms of injury might result in additional injuries to this joint. By starting your examination in an area where the patient has no pain, you are able to gain his or her confidence (Wardrope and English 1998).

Look Observe both hands resting on a hard surface. Note any obvious deformity (for example, dislocation), swelling and/or bruising. Observe the skin. Is it intact? If not, describe the wound, for example, ragged laceration to index finger following crush injury. Is the hand the same colour as the non-injured hand? Finally, observe the nail. Is there a haematoma under the nail bed? If so, does the mechanism of injury explain this or do you need to ask further questions?

Feel The soft tissues and bones must be palpated in a systematic manner. To identify the maximum point of tenderness, use a single finger and palpate each bone, starting with the proximal end of the radius and ulna (at the elbow) moving to the distal end. Then palpate the carpal bones, metacarpals and fingers. When the maximum point of tenderness has been located, you will need to identify whether this is bony or soft tissue tenderness. If this is bony tenderness, an X-ray is indicated.

Finally, test sensation in each finger. Is it the same as on the other hand? If not, the patient might need a higher priority category. Check the vascular status. Absent pulses and/or a cold hand might indicate a vascular problem, especially if the patient has pain or parasthesia.

Move Ask the patient to flex (bend) and extend (straighten) each finger, then repeat the same movements in the wrist and then the elbow. Note which movements are reduced by comparing them with the non-injured arm. Do not forget that the thumb has additional movements, and you should ask the patient to bring the tip of the little finger and thumb together. There are several other tests that can be undertaken to assess the movements, and some of these are discussed.

Initial management

Having obtained a history and examined the patient, the triage nurse should consider treatment including first aid, analgesia and an X-ray. If there is any bleeding, this should be stopped with a pressure bandage. Broken skin should be covered with a non-adherent dressing. Any injuries to the hand or wrist might lead to excessive swelling. Rings must be removed, even if they are on a non-injured finger, as swelling often spreads to the whole hand. The patient's arm should be placed in a high-arm sling, not only for the patient's comfort but also to help prevent or reduce swelling.

An audit of analgesia provision at triage in one department highlighted that 90 per cent of patients attended A&E with pain, 79 per cent of whom had had an accident or injury (Fullarton 2002). However, 81 per cent had not taken any analgesia before attending A&E. The four main reasons patients gave for not taking analgesia were (Fullarton 2002):

- They did not like to.
- They thought they were not supposed to.
- They came straight to A&E.
- The pain was not too bad.

Previous studies on pain management in A&E suggest that pain is not managed to the patient's satisfaction (Larsen 2000). Patient group directions are specifically written instructions that legally enable healthcare professionals to authorise the supply or administration of medicines to a group of patients in an identified clinical situation (NHSE 2000). Within A&E, patient group directions are commonly used by ENPs to enable them to supply or administer medicines to patients they treat, or by triage nurses to authorise the administration of analgesia to patients at triage (Larsen 2001), rather than relying on medical staff to prescribe medication for patients they have not assessed. However, a recent study of 184 A&E departments confirmed inequalities in service for patients, with only 50 per cent of departments having facilities for the triage nurse to administer analgesia (Overton-Brown *et al* 2001).

Nurses' ability to request X-rays at triage has been found to speed up the patient's overall stay in A&E, by making appropriate use of the waiting time and the nurse's skills and knowledge, while reducing the number of consultations with medical staff (Davies 1994). In addition, the government pledged its support for nurses to order diagnostic tests for patients in the ten key roles of the nurse (DoH 2000). Despite this, Overton-Brown *et al* (2001) found that only 32 per cent of 184 A&E departments allowed nurses to request X-rays at triage.

TIME OUT 4

Reflect on how long patients in your department wait for analgesia, and try to identify the reasons for this. Discuss with your colleagues whether patient group directions would be beneficial and identify potential barriers to its implementation. Make a list of the analgesia that you think should be included in these directions, but remember that controlled drugs are not covered by this legislation. If your department does not have nurse X-ray requests, discuss with your colleagues why this is the case. How would you go about changing this?

Common fractures of the wrist

The most common mechanism of injury for wrist fractures is a fall onto an outstretched hand (hyperextension). This can result in fractures of the humerus in older people, elbow fractures, especially in children, but not exclusively, and fractured wrist bones in adults (Wardrope and English 1998), making it essential that the examination starts with the joint above where the patient complains of pain.

The most common wrist fractures following a fall onto the outstretched hand are scaphoid fractures, distal radius fractures or lunate dislocation fractures.

Scaphoid fracture Because the scaphoid bridges the two carpal rows, this bone is at particular risk of breaking during a hyperextension injury. There are several clinical examination tests to aid diagnosis, but none are 'fool-proof', as other fractures to the wrist elicit pain on clinical examination of the scaphoid bone (Dyson 1997). The tests used to assess for scaphoid fractures are:

- Snuff box tenderness (Figure 3). The anatomical snuff box is a depression found on the lateral aspect of the wrist when the thumb is extended. On the floor of the snuff box lies the radial styloid, the scaphoid, trapezium and the

Figure 3. Anatomical snuff box

Figure 4. Telescoping of thumb into snuff box

base of the first metacarpal (Lumley 1996). Direct pressure on the snuff box will elicit tenderness of the injured scaphoid bone

- Pain on direct pressure over the scaphoid bone.
- Pain on axial compression, also known as telescoping of thumb into snuff box (Figure 4). The thumb of the patient's injured hand is held by the examiner. Pressure is then exerted to the thumb's metacarpal, forcing the base of the metacarpal into the anatomical snuff box (Dyson 1997).

Two or more positive signs indicate that the patient could have a clinically fractured scaphoid, and scaphoid views should be requested on wrist X-ray. However, the X-rays of up to 15 per cent of these patients might not show a fracture initially. These patients should be treated as having clinically suspected fractures, and X-rayed again 10-14 days later when reabsorption has taken place around the fracture (Dyson 1997). Failure to recognise a scaphoid fracture can lead to non-union and subsequent avascular necrosis.

The treatment of a clinically fractured scaphoid varies between departments, from a support bandage to a full scaphoid plaster cast. A study compared the use of a traditionally Colles-style backslab with that of a supportive bandage (Sjolin and Andersen 1988). The study found that patients returned to work sooner if they were treated using a bandage (four days in comparison to 14 days for patients whose arms were immobilised in a plaster) (Sjolin and Andersen 1988). The patients were only followed up for two weeks, so any long-term complications were not assessed. However, Sjolin and Andersen (1988) point out that as these types of fractures usually heal, irrespective of treatment, it is unnecessary to immobilise suspected scaphoid fractures in a plaster cast, especially as this severely inconveniences the patient.

Radiological positive scaphoid fractures These fractures are immobilised and followed up in the fracture clinic. The standard scaphoid cast (full, below elbow cast with the thumb immobilised up to the point of the interphalangeal joint) has been found to be unnecessary and more inconvenient for the patient when compared with a Colles-type cast (below elbow backslab without thumb immobilisation) (Clay *et al* 1991).

Another study recommended treating scaphoid fractures in a Colles-style backslab, with the wrist in slight extension (Hambridge *et al* 1999). However, Gellman *et al* (1989) compared the use of short and long thumb spica for non-displaced scaphoid fractures, and recommended treating the fracture in a long thumb spica for the first six weeks, followed by the use of short thumb spica.

TIME OUT 5

Review the treatment of radiological positive fractured scaphoids and clinically fractured scaphoids in your department. What is the rationale for this treatment? Imagine that you are about to discharge a single mother with a young baby who has a fractured scaphoid bone. What treatment would you advocate and why?

A single mother would have great difficulties looking after her young child if a plaster of Paris cast was applied, as this is heavy and cannot get wet. The nurse must take into account the patient's social circumstances and if necessary advocate a different treatment based on evidence. There is little, if any, evidence for immobilising suspected scaphoid fractures in a plaster cast, and a bandage or splint should be used.

Lunate and perilunate dislocation Ninety per cent of carpal injuries are to the scaphoid (Raby *et al* 1996). Dislocations of the lunate and perilunate can occur, usually as a result of a fall onto an outstretched hand, causing disruption to the ligaments of the carpal bones (Holt 2000). On examination the patient will complain of severe pain in the wrist and deformity of the wrist is noted (Holt 2000). Lunate and perilunate dislocations can be difficult to detect, and familiarity with normal anatomy is essential.

On the lateral view of the X-ray (Figure 5a), the radius, lunate and capitate lie in a straight line, like an apple in a cup on a saucer (Raby *et al* 1999). When the lunate dislocates (Figure 5b), the cup is empty, but the radius and capitate (saucer and apple) remain in a straight line (Raby *et al* 1999). A much rarer type of carpal dislocation is the perilunate dislocation (Figure 5c). The carpal bones (except the lunate) dislocate, leaving the lunate and radius in a straight line (the cup sits on the saucer), but the capitate has moved, leaving the cup empty (Raby *et al* 1999). Both types of injury are often associated with other injuries, and must be referred to the orthopaedic surgeon for reduction and management.

Fractures of the distal radius Most injuries to the distal radius occur as a result of a fall onto the outstretched hand (usually in adults). The distal radius might break without any displacement (Figure 6a), and patients are treated using a backslab and are followed up in the fracture clinic. The most common fracture is the Colles' fracture (Figure 6b), which usually occurs in women over the age of 50 (Holt 2000). In this type of injury, the distal fragment of the radius is displaced posteriorly (dorsally), giving the wrist the typical dinner-fork appearance (Holt 2000). In 60 per cent of cases there is an associated fracture of the ulna styloid

Figure 5a. Normal lateral wrist

The radius (R), lunate (L) and capitate (C) lie in a straight line like an apple in a cup on a saucer

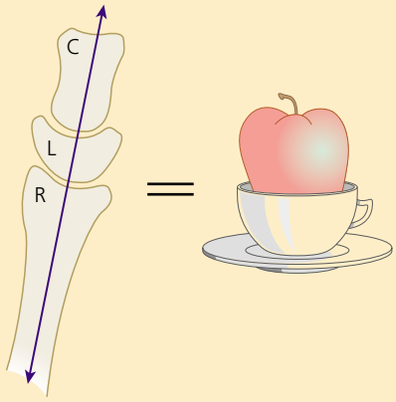


Figure 5b. Lunate dislocation

The cup is empty, but the radius (R) and capitate (C) remain in a straight line

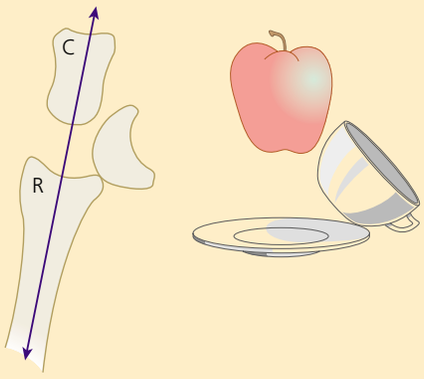


Figure 5c. Perilunate dislocation

The capitate (C) is dislocated. The cup is empty, but the radius (R) and lunate (L) remain in a straight line

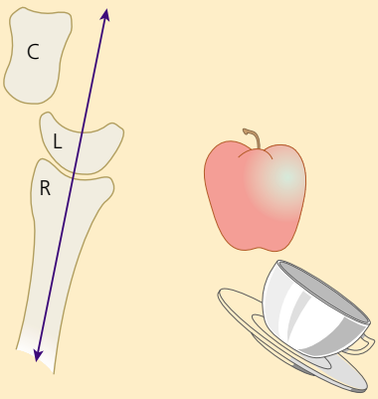


Figure 6a. Undisplaced distal radius fracture

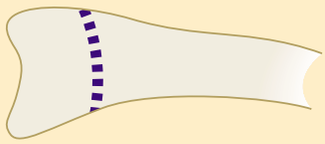
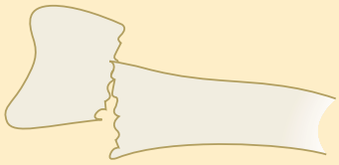


Figure 6b. Colles' fracture



Figures 5a-c reprinted from *Accident and Emergency Radiology: A Survival Guide*, Raby N *et al* (1999), by permission of the publisher WB Saunders.

(Holt 2000). The patient will present with pain, swelling and wrist deformity and should be given analgesia and an X-ray as soon as possible. The treatment depends on the severity of displacement, which might need reduction.

Reduction is often undertaken in A&E under haematoma block, which involves the injection of lignocaine into the haematoma around the fracture site, and the fracture can be manipulated after approximately five minutes (Nolan and Baskett 1997). The effect lasts for up to one hour, but the analgesia provided is often inadequate and by inserting a needle into the fracture site, it is converted into an open fracture (Nolan and Baskett 1997). Nolan and Baskett (1997) recommend intravenous regional anaesthesia (Biers' block) as the preferred option for reducing Colles' fractures. Skilled operators and an anaesthetist are required to undertake this block and the patient must have been starved for four hours before the procedure (Nolan and Baskett 1997).

Another fracture to the distal radius is the Smith's fracture (Figure 7). The mechanism of injury is a fall onto the back of the hand, resulting in displacement of the fracture fragment anteriorly. This is a much more severe injury and if reduction is needed, this should be undertaken under general anaesthetic. Patients with these fractures present with pain, swelling and deformity.

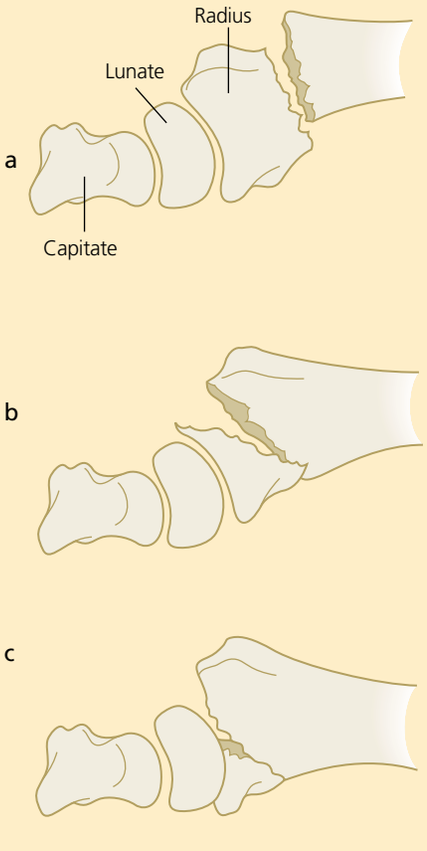
Fractures to the hand and fingers

Fractured fingers (phalangeals) are the most common of all hand fractures, and are caused by (Wilson *et al* 1997):

- Direct blow to the bone or the tip of the finger (for example, a tennis ball).

Figure 7. Types of Smith's fracture

a. Transverse fracture
b. Oblique fracture from proximal volar surface through dorsal surface
c. Oblique fracture with joint space involvement



- Hyperextension injury.
- Hyperflexion injury.

Patients present with a swollen finger and a reduced range of movements. The treatment is usually neighbour strapping (splinting the injured finger to its neighbour finger with tape) and exercises to prevent stiffness (Wilson *et al* 1997).

Fractures to the shaft of the metacarpals are caused by (Holt 2000):

- Direct blow.
- Torque force.
- Crush injury/gun shot.

The patient presents with pain and some degree of swelling. When the metacarpophalangeal joint is flexed, the knuckle might appear flat (Wilson *et al* 1997). The treatment varies depending on the injury, the patient's occupation and local preferences. The main principle is to reduce any rotation or shortening and restore optimal function (Holt 2000).

Fractured head of 5th metacarpal This is a common injury seen in A&E. The history is usually from punching something or someone with the fist. The patient might be reluctant to volunteer the mechanism of injury, and sensitive but direct questioning might be needed. It is important to establish whether the patient might have punched someone's tooth, as any skin break caused by a human tooth can lead to severe hand infection (Wilson *et al* 1997). Treatment usually involves neighbour strapping, elevation, gentle exercises and follow up at the fracture clinic. An antibiotic is given if a human bite is suspected. Severe rotation or angulation might need surgical repair (Wilson *et al* 1997).

Base of thumb injuries The thumb is important for many everyday activities, such as gripping, and correct treatment and restoration of function is vital. Most fractures of the thumb occur at the base of the metacarpal, and when accompanied with dislocation are known as a Bennett's fracture/dislocation (Raby *et al* 1999). These injuries might require surgical repair and should be referred to orthopaedic surgeons for management.

Discharge advice

Nurses in A&E have a vital role in discharging patients from the department. Most patients attending A&E are in pain and feeling anxious, and do not always remember their diagnosis, treatment and follow-up arrangements (Taylor and Cameron 1999). Providing patients with verbal and written discharge advice improves their understanding and compliance with treatment (Taylor and Cameron 1999), and most departments have written discharge advice instructions. Ferguson (1998) argues that many of these advice leaflets are not research based but are based on the individual department's practices.

TIME OUT 6

Review your A&E department's discharge information for patients with fractures of the wrist or hand. What is the evidence base for the content? Can you think of any additional information that should be included? Is it clear how and where patients can seek help or further advice?

When discharging patients, it is important that the nurse considers the patient holistically and does not focus solely on the treatment of injury. For example, an older patient might not be able to manage all the activities of daily living and need some input from social services as a temporary measure. Many hospitals have multidisciplinary discharge teams for older people, and it might be beneficial to seek their advice before the patient is discharged. For example,

plaster of Paris cannot get wet, as it may soften and crack (Prior and Miles 1999) and the team might advise on another more appropriate treatment, or suggest that the patient should be immobilised in another type of splint, such as a fibre cast or thumb spica.

A&E is the interface between community (primary) and hospital (secondary) care (Crouch 2000). It is vital that the GP responsible for co-ordinating the patient's care is informed of the diagnosis, treatment and any follow-up arrangements for the patient (Guly 1996). All care, treatment and advice given must be documented, signed and dated.

Conclusion

Nurses in A&E play a pivotal role in ensuring that holistic care is given to patients with hand or wrist fractures. Knowledge of normal anatomy is essential for the triage nurse to undertake a thorough assessment. Additional triage activities, such as X-rays and provision of analgesia, can assist in providing patient-centred care, while at the same time optimising the skills and knowledge of the triage nurse. The nurse must undertake a holistic assessment that includes the patient's social circumstances to discharge the patient safely. Treatment and advice should be based upon best available evidence, but needs to be adaptable to the individual patient and his/her social situation. Patients attending A&E have several anxieties, and the nurse must maintain an awareness that even so-called minor injuries to the hand and wrist may have catastrophic consequences for the patient and his/her livelihood

TIME OUT 7

Now that you have completed the article, you might like to write a practice profile. Guidelines to help you are on page 55.

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