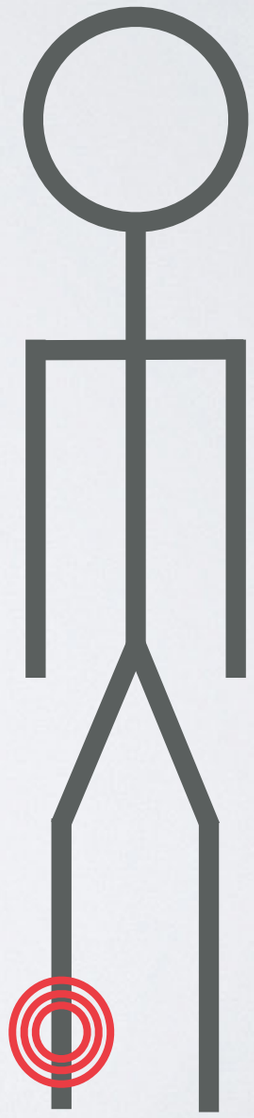
NICE National Institute for Health and Care Excellence

Interactive Infographic Slide Set

# NG38
# Fractures (non-complex):
## Assessment and Management

START



This resource presents **every** recommendation from the NICE Guideline, Fractures (non-complex): Assessment and management accompanied by infographics.

It can be used to:

- read the guideline recommendations
- teach the guideline recommendations

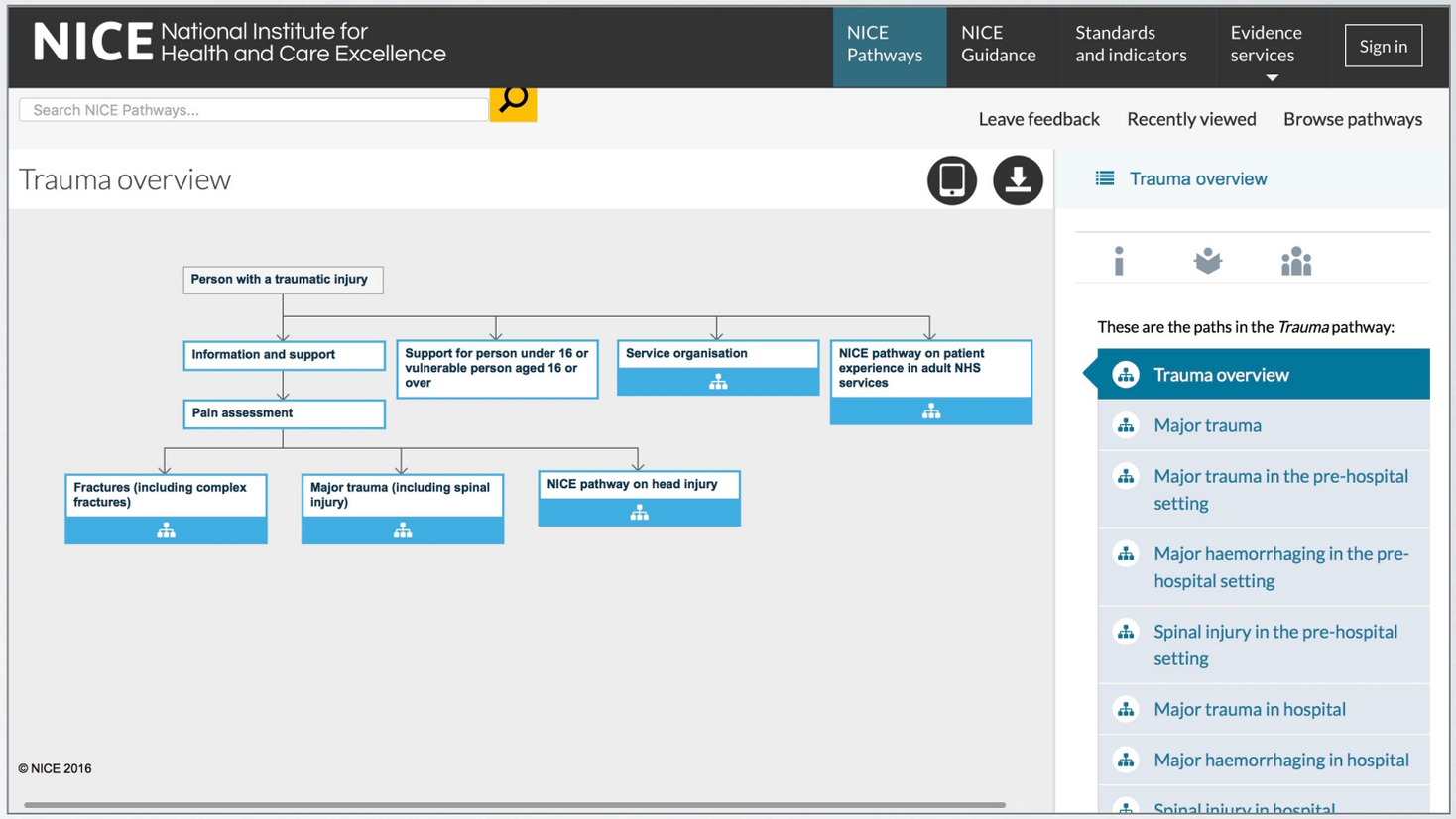
Click here to access the full guideline instead.

http://www.nice.org.uk/guidance/ng38

CONTINUE

# NICE Pathways

Our online tool provides quick and easy access, topic by topic, to the range of guidance from NICE, including quality standards, technology appraisals, clinical, public health and social care guidelines and NICE implementation tools.




Access the pathway for trauma by clicking opposite:

CONTINUE

People have the right to be involved in discussions and make informed decisions about their care, as described in your care on the NICE website.

See our website page on making decisions using NICE guidelines to find out how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Recommendations apply to both children (under 16s) and adults (16 or over) unless otherwise specified. Some recommendations on management depend on whether the growth plate of the injured bone has closed (skeletal maturity). The age at which this happens varies. In practice, healthcare professionals use clinical judgement to determine whether a bone is skeletally mature. When a recommendation depends on skeletal maturity this is clearly indicated.

MENU

menu

PLAY ALL

1.1 Initial pain management and immobilisation

1.2 Acute stage assessment and diagnostic imaging

1.3 Management in the emergency department

1.4 Ongoing orthopaedic management

1.5 Documentation

1.6 Information and support for patients, family members and carers

1.7 Non-accidental Injury

1.8 Training and skills

menu

Pre-hospital

In hospital

# 1.1 INITIAL PAIN MANAGEMENT AND IMMOBILISATION

START

NG38 Fractures (non-complex)

# Pain assessment

NICE Guideline on patient experience in adult NHS services

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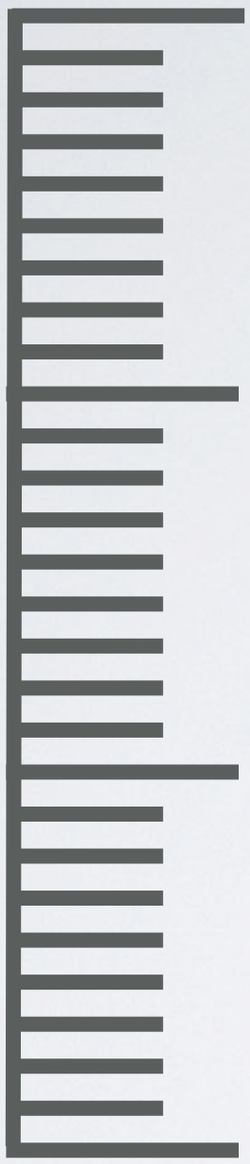
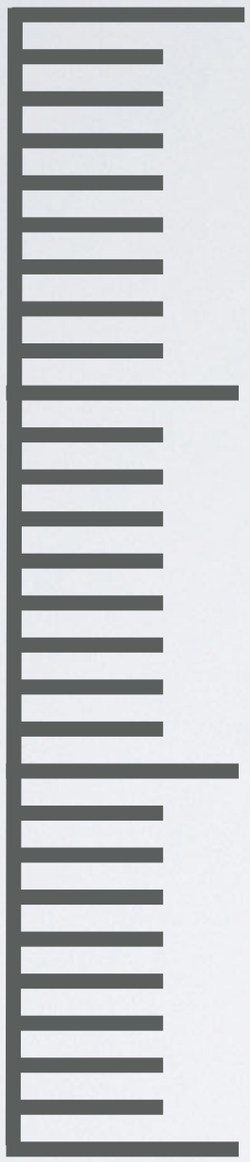
1.1.1
See the NICE guideline on patient experience in adult NHS services for advice on assessing pain in adults.



1.1.2
Assess pain regularly in people with fractures using a pain assessment scale suitable for the person's age, developmental stage and cognitive function.



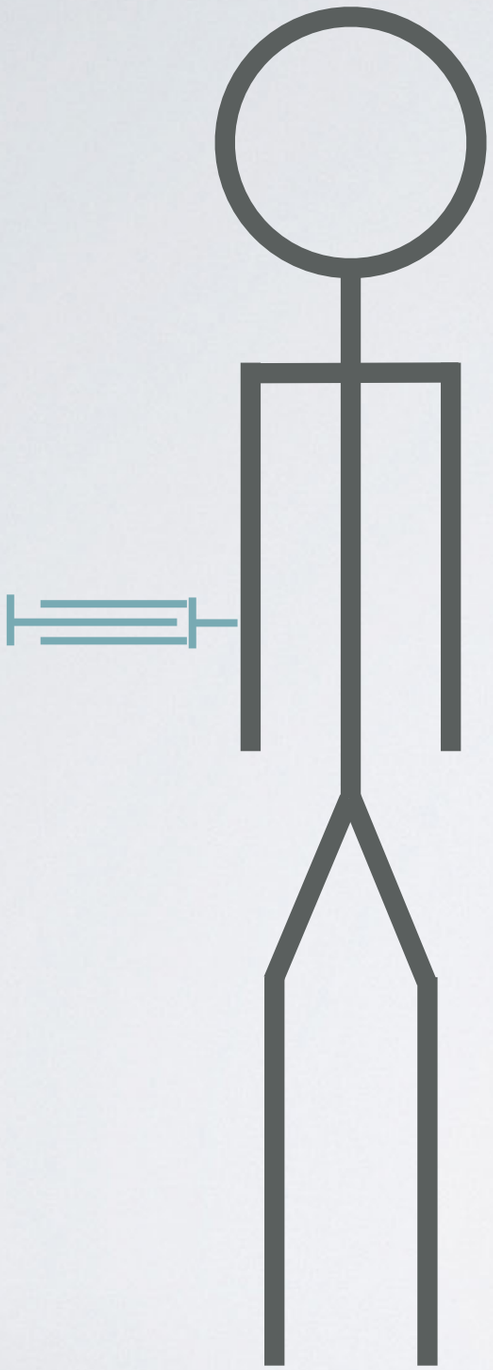
1.1.3
Continue to assess pain in hospital using the same pain assessment scale that was used in the pre-hospital setting.

# Initial pharmacological management of pain in adults (16 or over)

1.1.4

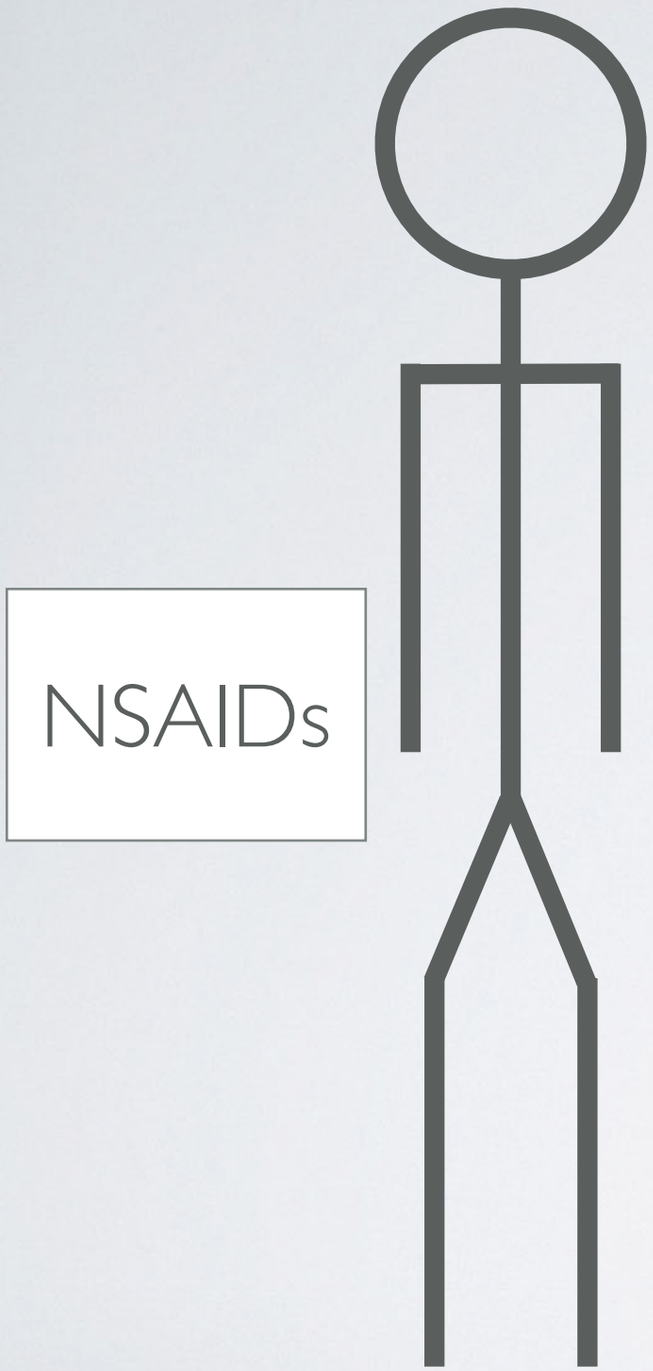
For the initial management of pain in adults (16 or over) with suspected long bone fractures of the legs (tibia, fibula) or arms (humerus, radius, ulna), offer:

- oral paracetamol for mild pain
- oral paracetamol and codeine for moderate pain
- intravenous paracetamol supplemented with intravenous morphine titrated to effect for severe pain.



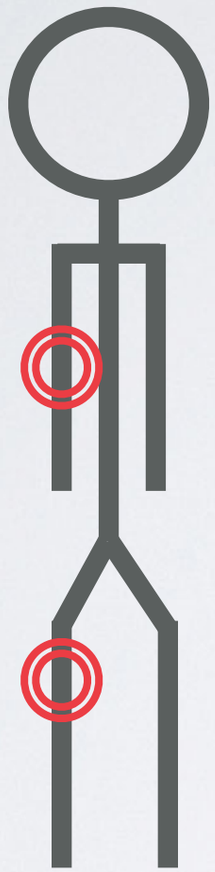
1.1.5
Use intravenous opioids with caution in frail or older adults.


1.1.6
Do not offer non-steroidal anti-inflammatory drugs (NSAIDs) to frail or older adults with fractures.




1.1.7
Consider NSAIDs to supplement the pain relief in recommendation 1.1.4 except for frail or older adults.

# Initial pharmacological management of pain in children (under 16s)

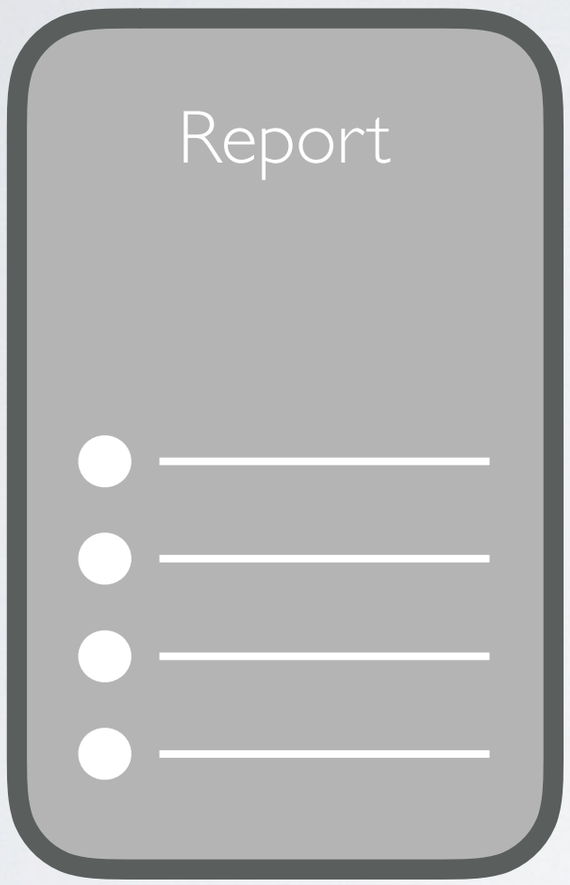


1.1.8

For the initial management of pain in children (under 16s) with suspected long bone fractures of the legs (femur, tibia, fibula) or arms (humerus, radius, ulna), offer:

- oral ibuprofen, or oral paracetamol, or both for mild to moderate pain
- intranasal or intravenous opioids for moderate to severe pain (use intravenous opioids if intravenous access has been established).

# Hot Reporting



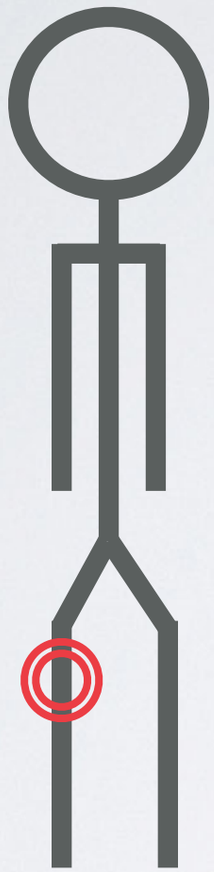

1.1.9
A radiologist, radiographer or other trained reporter should deliver the definitive written report of emergency department X-rays of suspected fractures before the patient is discharged from the emergency department.

# Splinting Long Bone Fractures of the leg in the Pre-Hospital Setting

1.1.10
In the pre-hospital setting, consider the following for people with suspected long bone fractures of the legs:

- a traction splint or adjacent leg as a splint if the suspected fracture in above the knee
- a vacuum splint for all other suspected long bone fractures.

# Femoral nerve blocks in children (under 16s)



1.1.11
Consider a femoral nerve block or fascia iliaca block in the emergency department for children (under 16s) with suspected displaced femoral fractures .

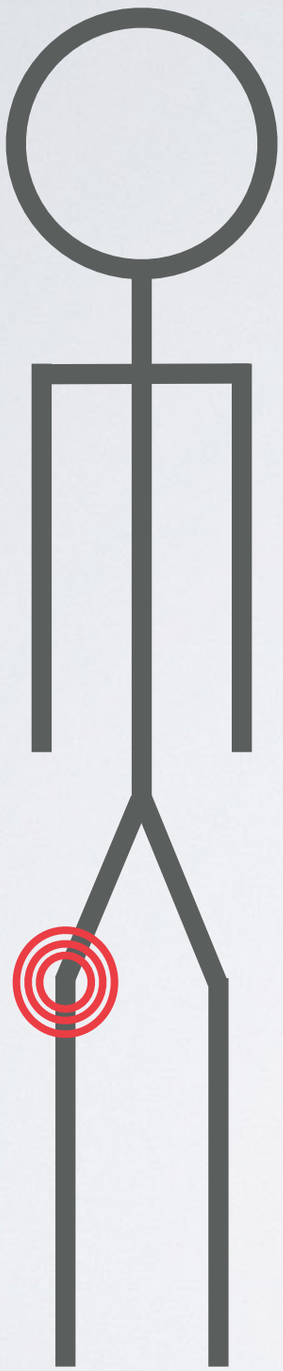
# 1.2 ACUTE STAGE ASSESSMENT AND DIAGNOSTIC IMAGING

See recommendations 1.1.4 to 1.1.8 for advice on initial management of pain.

START

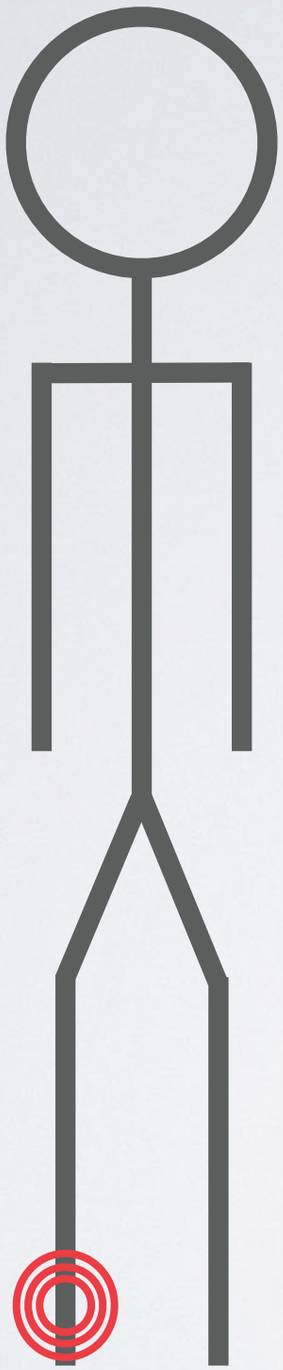
NG38 Fractures (non-complex)

# Use of clinical prediction rules for suspected knee fractures



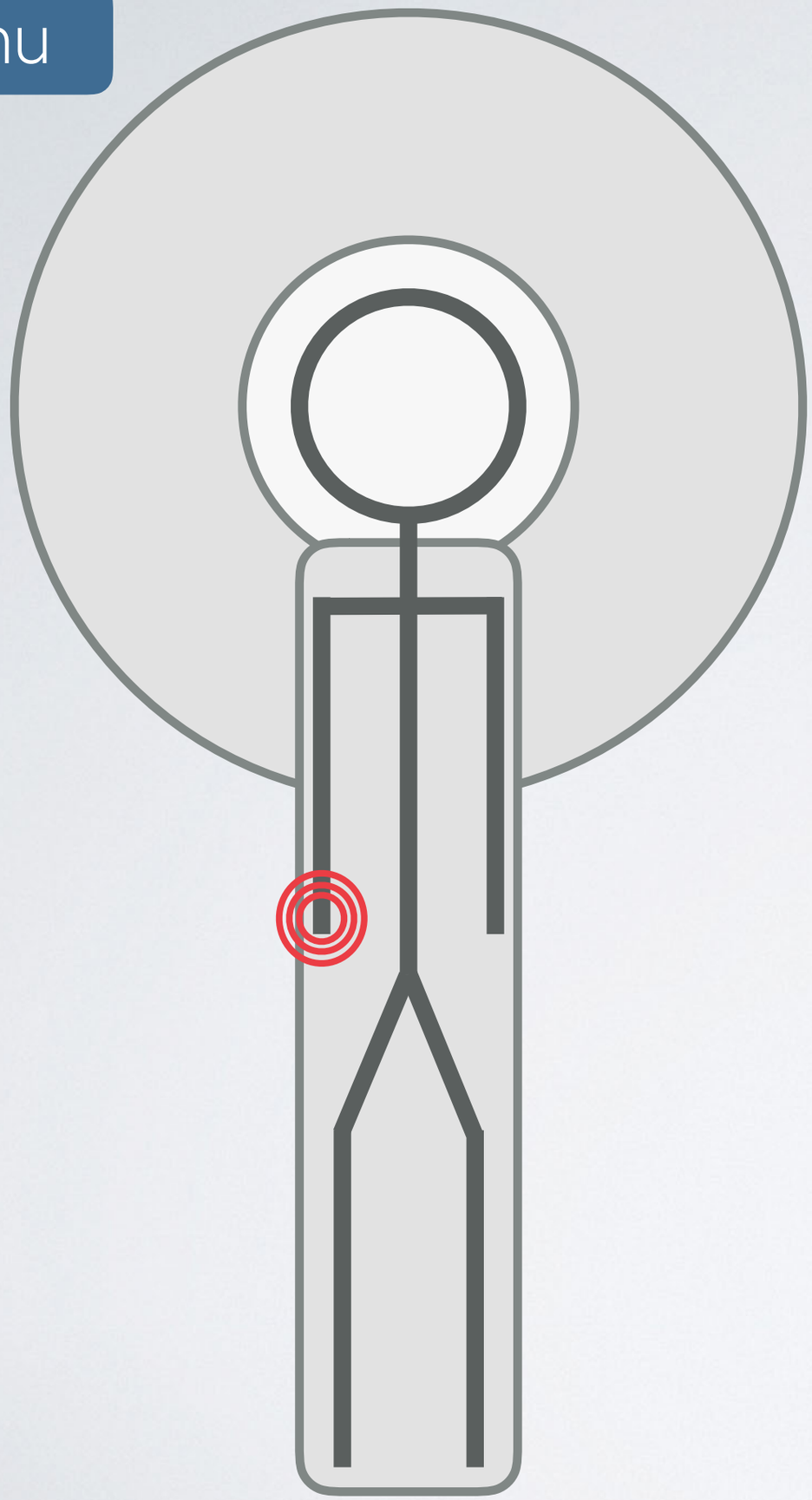
1.2.1
Use the Ottawa knee rules to determine whether an X-ray is needed in people over 2 years with suspected knee fractures.

# Use of clinical prediction rules for suspected ankle fractures



1.2.2
Use the Ottawa ankle and foot rules to determine whether an X-ray is needed in people over 5 years with suspected ankle fractures.

# Imaging of scaphoid fractures



1.2.3
Consider MRI for first-line imaging in people with suspected scaphoid fractures following a thorough clinical examination.

# 1.3 MANAGEMENT IN THE EMERGENCY DEPARTMENT

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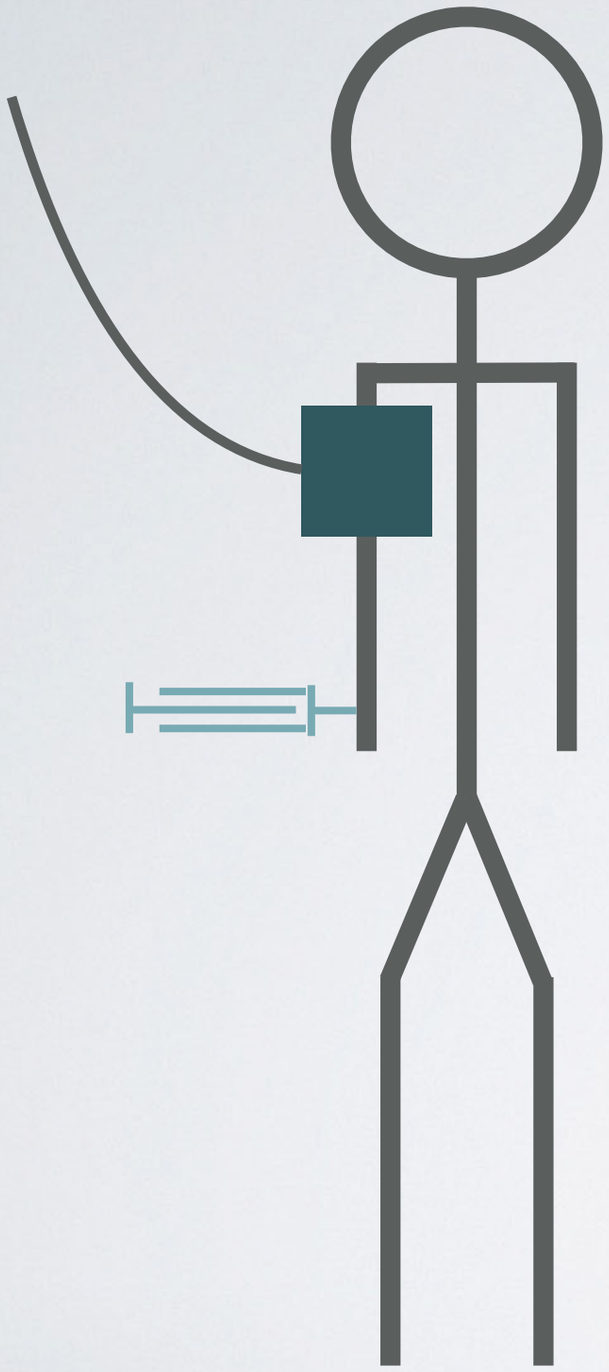
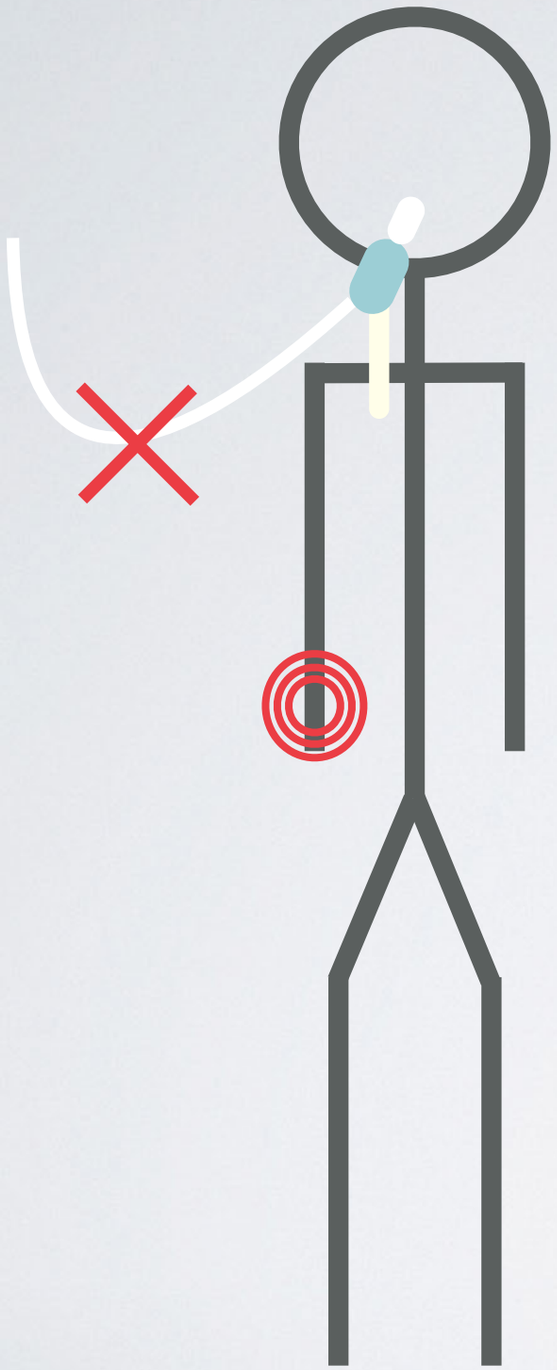
# Reduction of distal radius fractures



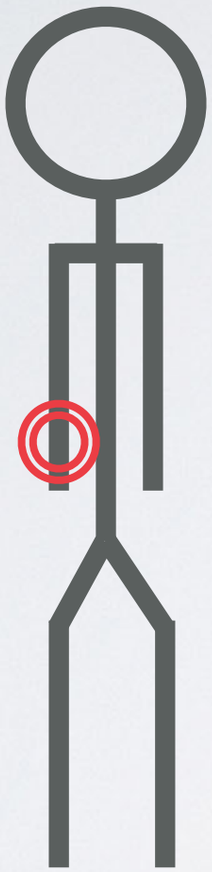
1.3.1
Consider intravenous regional anaesthesia (Bier's block) when reducing dorsally displaced distal radius fractures in adults (16 or over) in the emergency department. This should be performed by healthcare professionals trained in the technique, not necessarily anaesthetists.



1.3.2
Do not use gas and air (nitrous oxide and oxygen) on its own when reducing dorsally displaced distal radius fractures in the emergency department.

# Management of torus fractures

1.3.3
Do not use a rigid cast for torus fractures of the distal radius.



1.3.4
Discharge children with torus fractures after first assessment and advise parents and carers that further review is not usually needed.

# 1.4 ONGOING ORTHOPAEDIC MANAGEMENT

START

NG38 Fractures (non-complex)

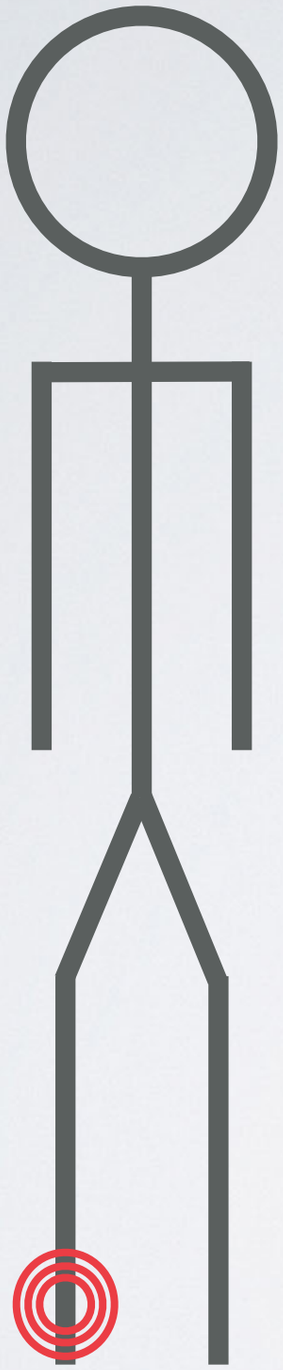
# Non-surgical orthopaedic management of unimalleolar ankle fractures

1.4.1

In the non-surgical orthopaedic management of unimalleolar ankle fractures:

- advise immediate unrestricted weight-bearing as tolerated
- arrange for orthopaedic follow-up within 2 weeks if there is uncertainty about stability
- advise all patients to return for review if symptoms are not improving 6 weeks after injury.

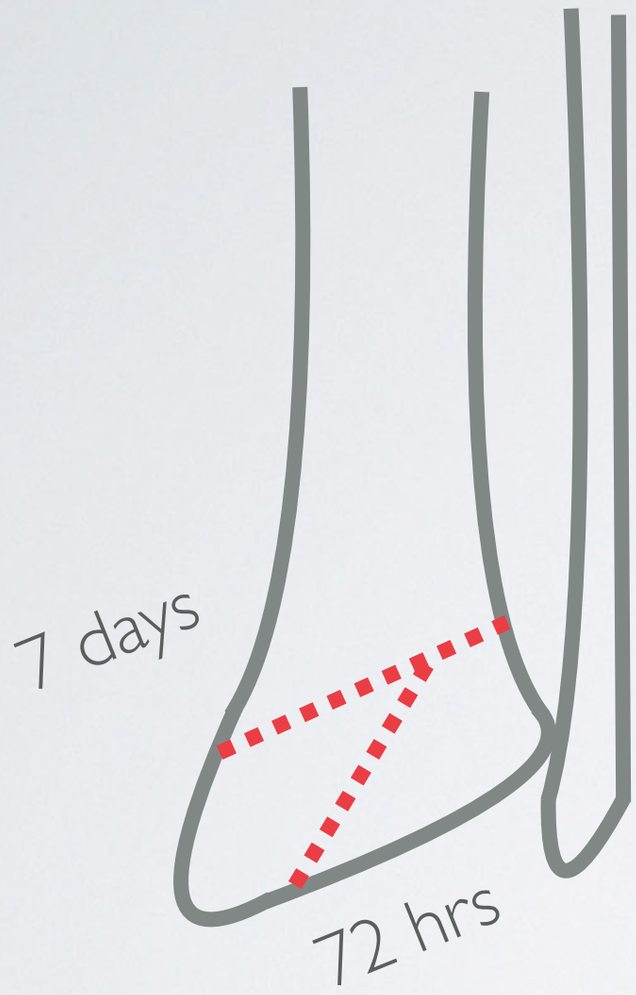
# Timing of surgery for ankle fractures



1.4.2

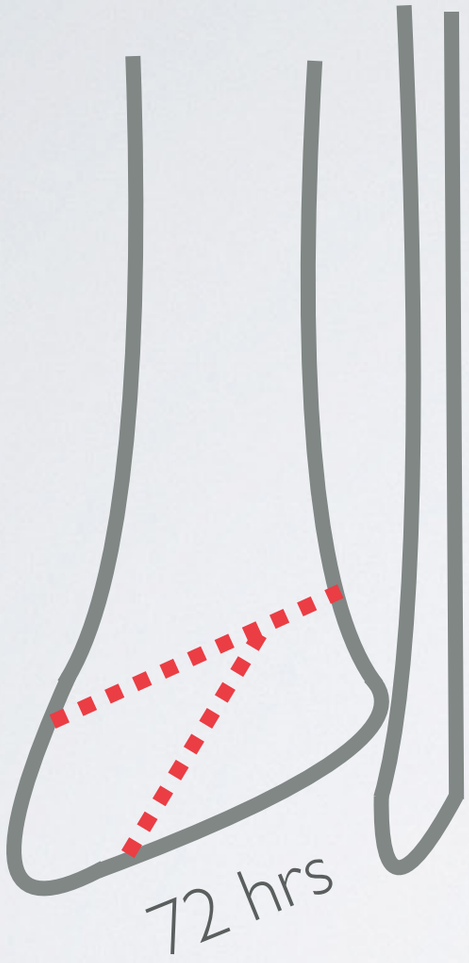
If treating an ankle fracture with surgery, consider operating on the day of injury or the next day.

# Timing of surgery for distal radius fractures



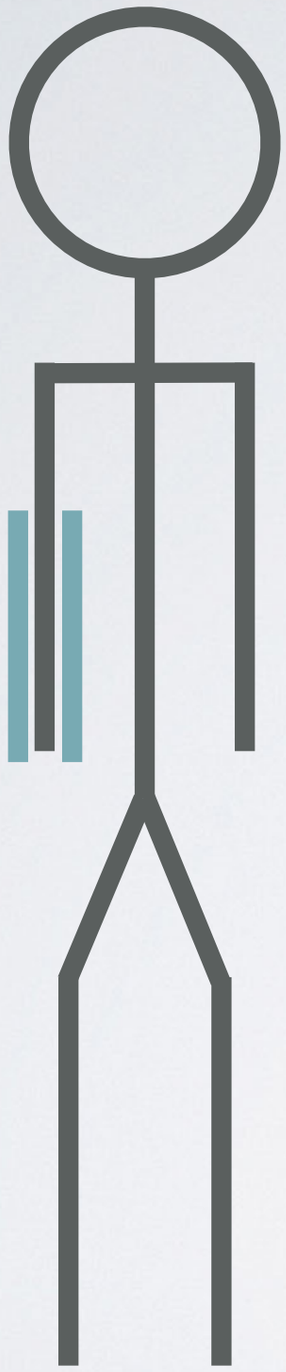

1.4.3
When needed for distal radius fractures, perform surgery:

- within 72 hours of injury for intra-articular fractures
- within 7 days of injury for extra-articular fractures.




1.4.4
When needed for re-displacement of distal radius fractures, perform surgery within 72 hours of the decision to operate.

# Definitive treatment of distal radius fractures in adults (skeletally mature)

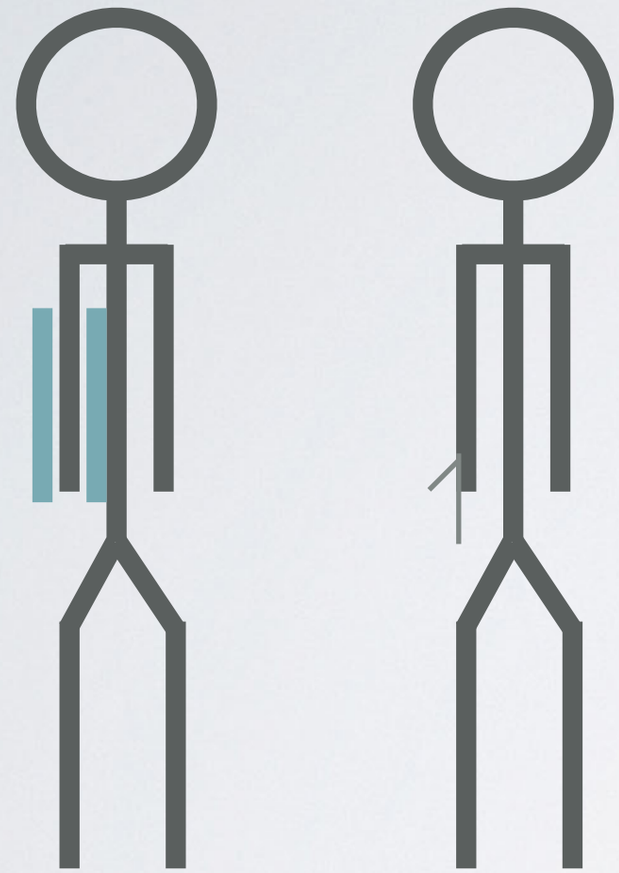


1.4.5
Consider manipulation and a plaster cast in adults (skeletally mature) with dorsally displaced distal radius fractures.

1.4.6
When surgical fixation is needed for dorsally displaced distal radius fractures in adults (skeletally mature):

- offer K-wire fixation if
  - no fracture of the articular surface of the radial carpal joint is detected, or
  - displacement of the radial carpal joint can be reduced by closed manipulation
- consider open reduction and internal fixation if closed reduction of the radial carpal joint surface is not possible.

# Definitive treatment of distal radius fractures in children (skeletally immature)

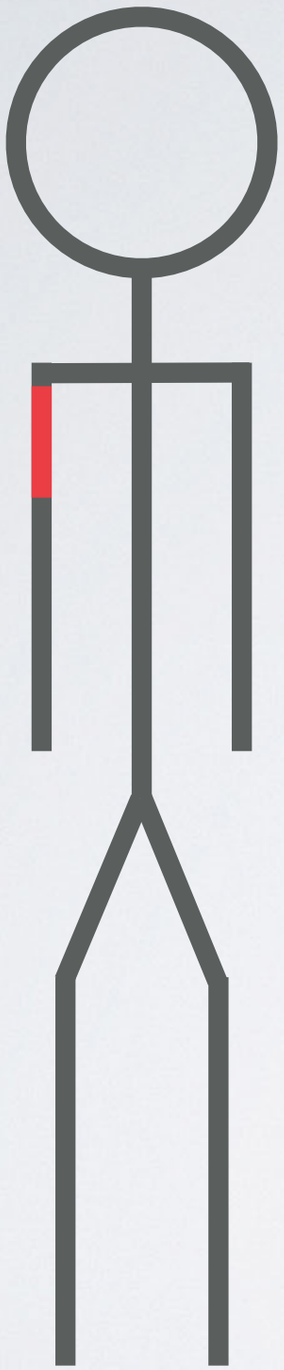


1.4.7

In children (skeletally immature) with dorsally displaced distal radius fractures (including fractures involving a growth plate) who have undergone manipulation, consider:

- a below-elbow plaster cast, or
- K-wire fixation if the fracture is completely displaced (off-ended).

# Definitive treatment of proximal humerus fractures in adults (skeletally mature)



1.4.8

For adults (skeletally mature) with displaced low energy proximal humerus fractures:

- offer non-surgical management for definitive treatment of uncomplicated injuries
- consider surgery for injuries complicated by an open wound, tenting of the skin, vascular injury, fracture dislocation or a split of the humeral head.

# Definitive treatment of femoral shaft fractures in children (skeletally immature)

1.4.9

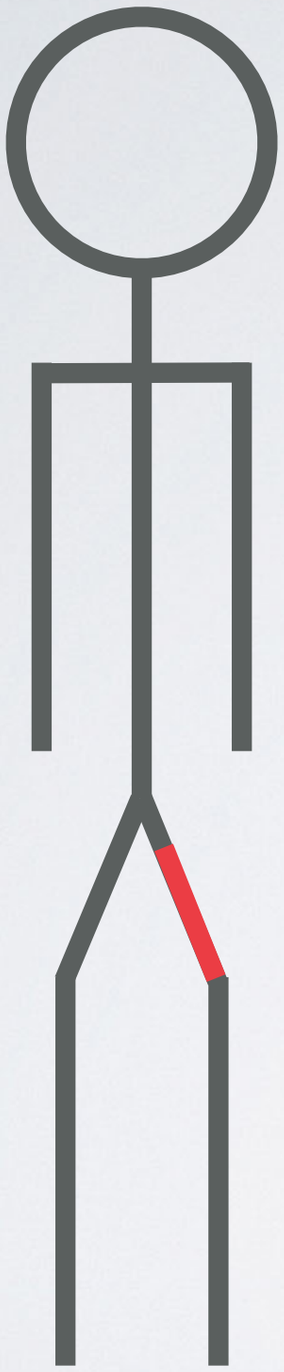
Admit all children (skeletally immature) with femoral shaft fractures and consider 1 of the following according to age and weight:

- prematurity and birth injuries: simple padded splint
- 0 to 6 months: Pavlik's harness or Gallows traction
- 3 to 18 months (but not in children over 15 kg): Gallows traction

1.4.9 (continued…)

- 1 to 6 years: straight leg skin traction (becomes impractical in children over 25 kg) with possible conversion to hip spica cast to enable early discharge
- 4 to 12 years (but not in children over 50 kg): elastic intramedullary nail
- 11 years to skeletal maturity (weight more than 50 kg): elastic intramedullary nails supplemented by end-caps, lateral-entry antegrade rigid intramedullary nail, or submuscular plating.

# Mobilisation after surgery in people with distal femoral fractures



1.4.10
Consider advising immediate unrestricted weight-bearing as tolerated for people who have had surgery for distal femoral fractures.

# 1.5 DOCUMENTATION

START

# NICE Guideline on major trauma: service delivery

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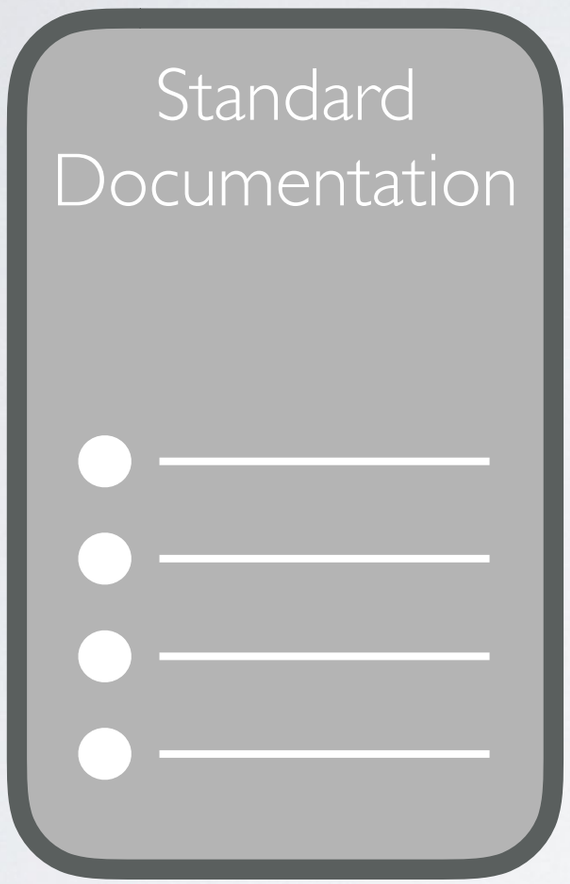
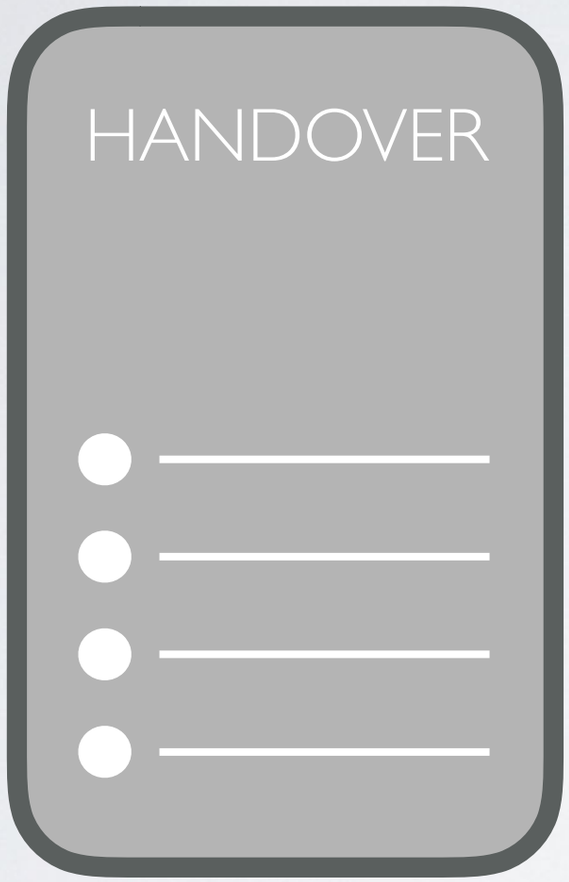
The NICE guideline on major trauma: service delivery contains recommendations for ambulance and hospital trust boards, senior managers and commissioners on documentation within a trauma network.

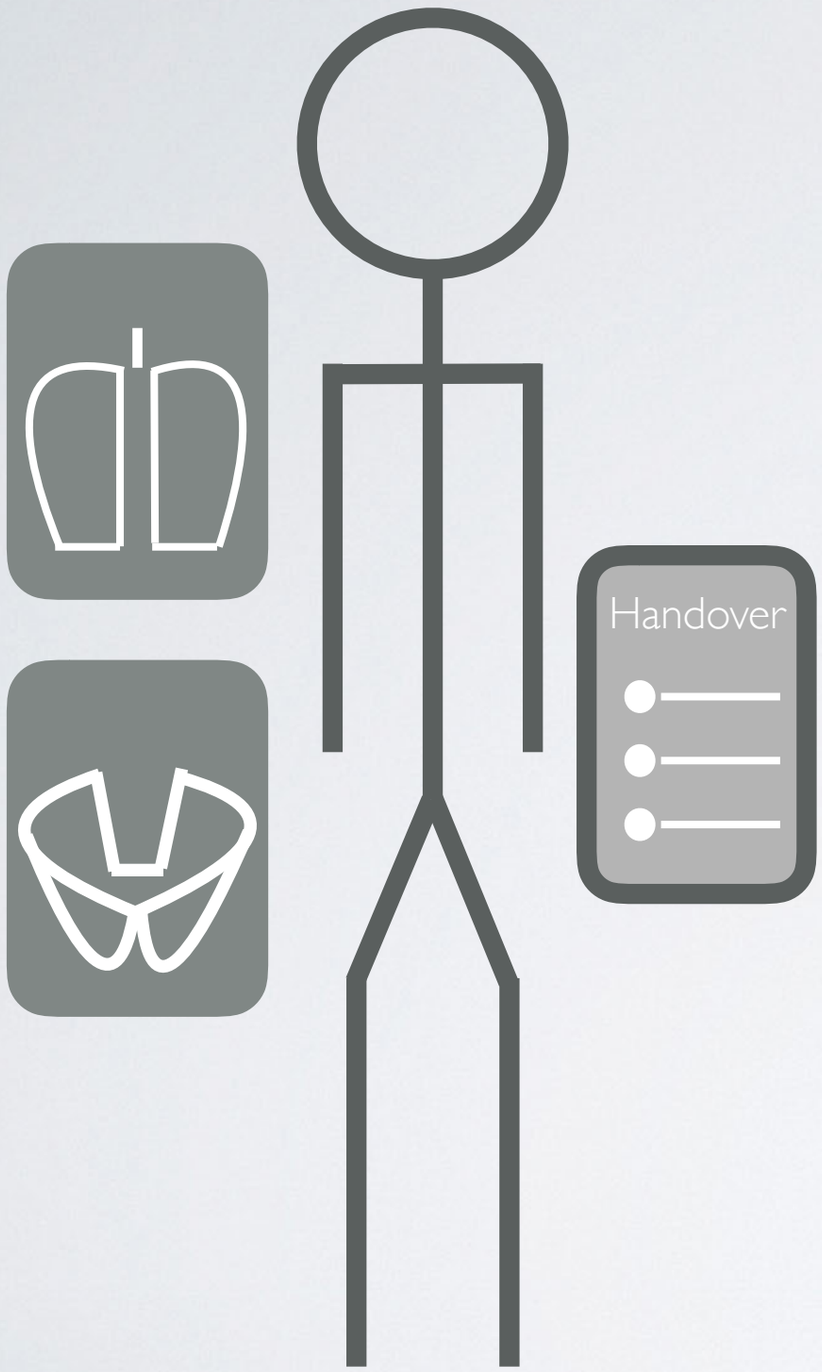



1.5.1
Consider developing and using standard documentation to prompt the assessment of the following from first presentation in people with fractures:

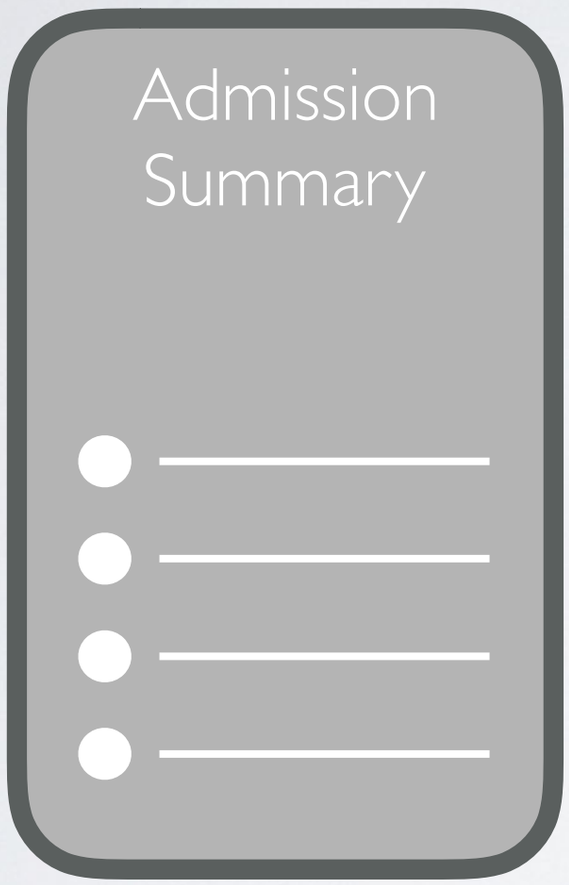
- safeguarding
- comorbidities
- falls risk
- nature of fracture, including classification where possible.




1.5.2
Follow a structured process when handing over care within the emergency department (including shift changes) and to other departments. Ensure that the handover is documented.




1.5.3
Ensure that all patient documentation, including images and reports, goes with patients when they are transferred to other departments or centres.




1.5.4
Produce a written summary which gives the diagnosis, management plan and expected outcome, and:

- is aimed at and sent to the patient's GP within 24 hours of admission
- includes a summary written in plain English that is understandable by patients, family members and carers
- is readily available in the patient's records

# 1.6 INFORMATION AND SUPPORT FOR PATIENTS, FAMILY MEMBERS AND CARERS

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NICE Guideline on major trauma: service delivery

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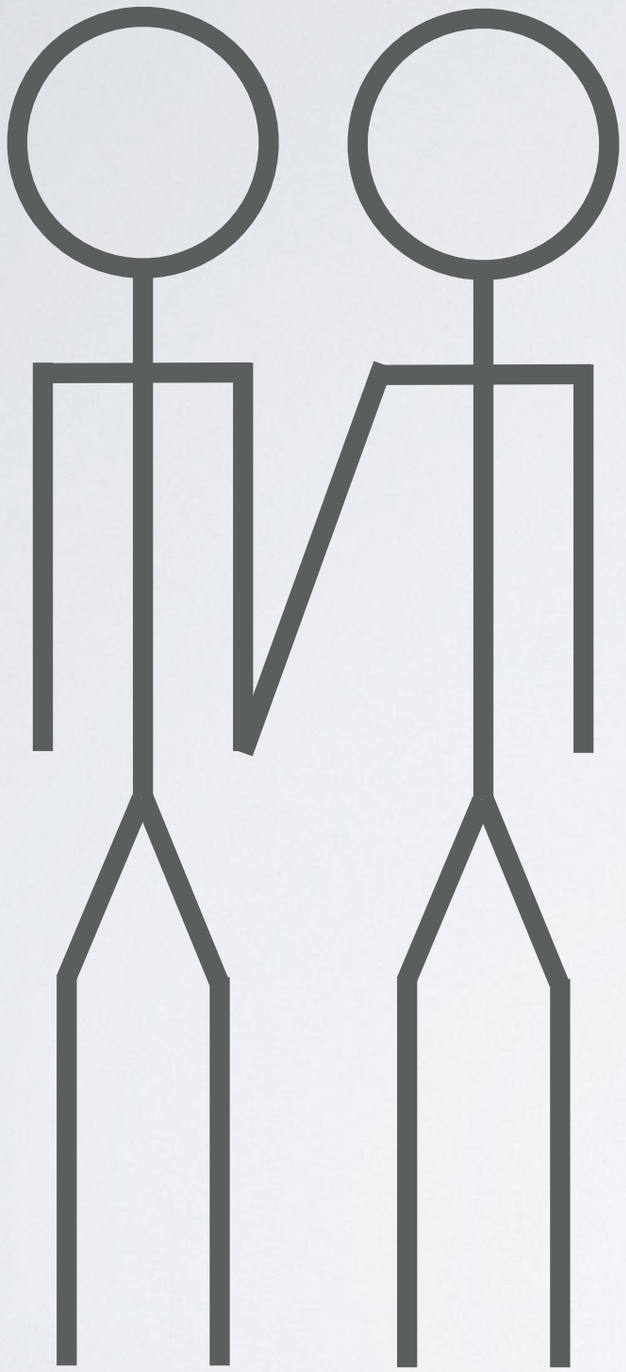
The NICE guideline on major trauma: service delivery contains a recommendation for ambulance and hospital trust boards, senior managers and commissioners on support and information for patients, family members and carers.

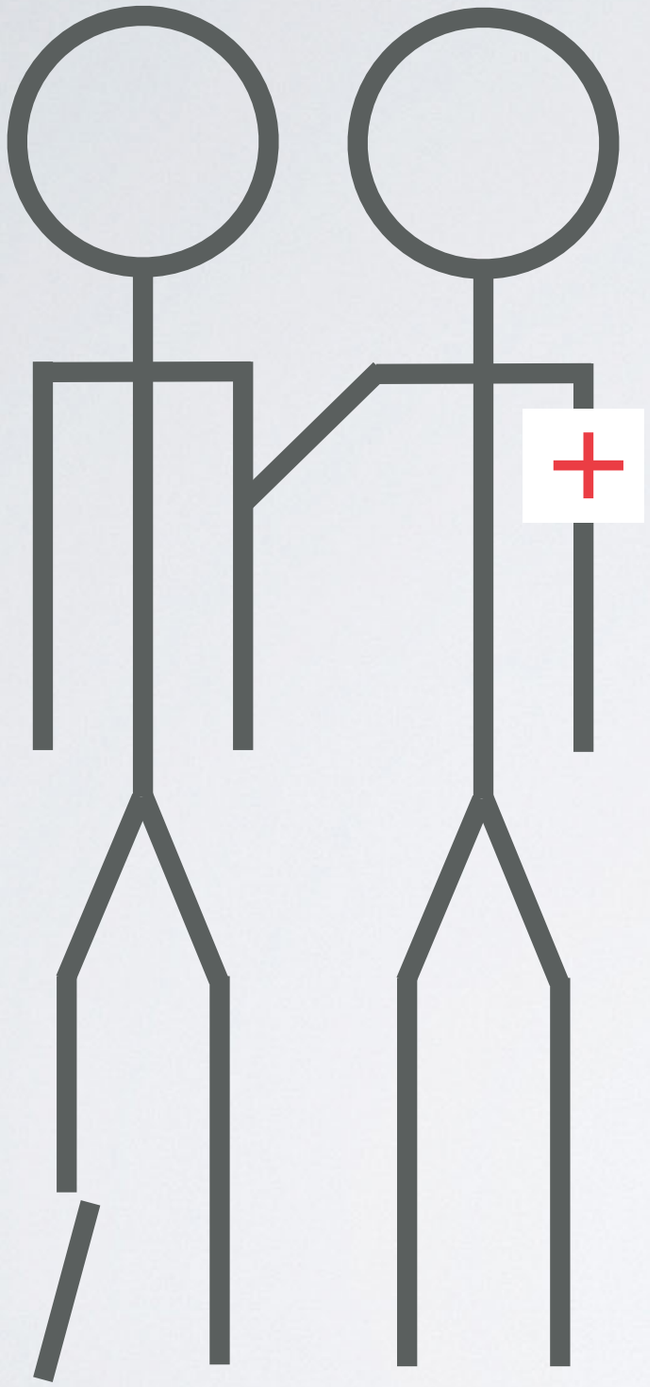
# Providing support

1.6.1
When communicating with patients, family members and carers:

- manage expectations and avoid misinformation
- answer questions and provide information honestly, within the limits of your knowledge
- do not speculate and avoid being overly optimistic or pessimistic when discussing information on further investigations, diagnosis or prognosis
- ask if there are any other questions.

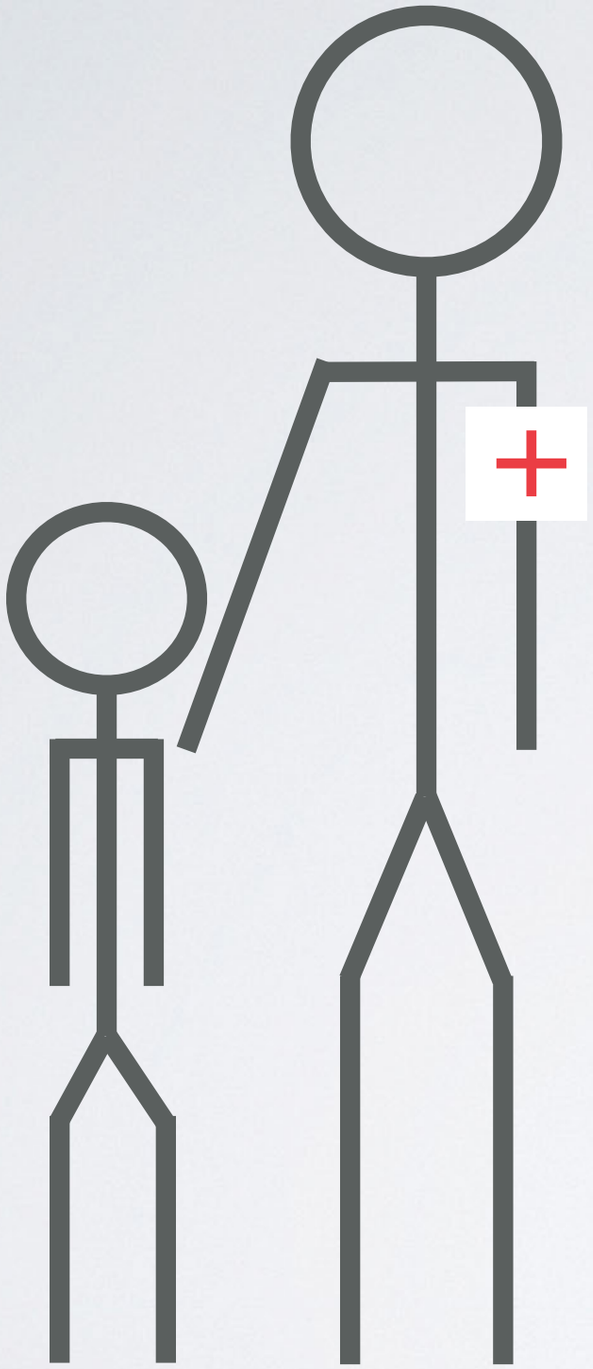


1.6.2
If possible, ask the patient if they want someone (family member, carer or friend) with them.

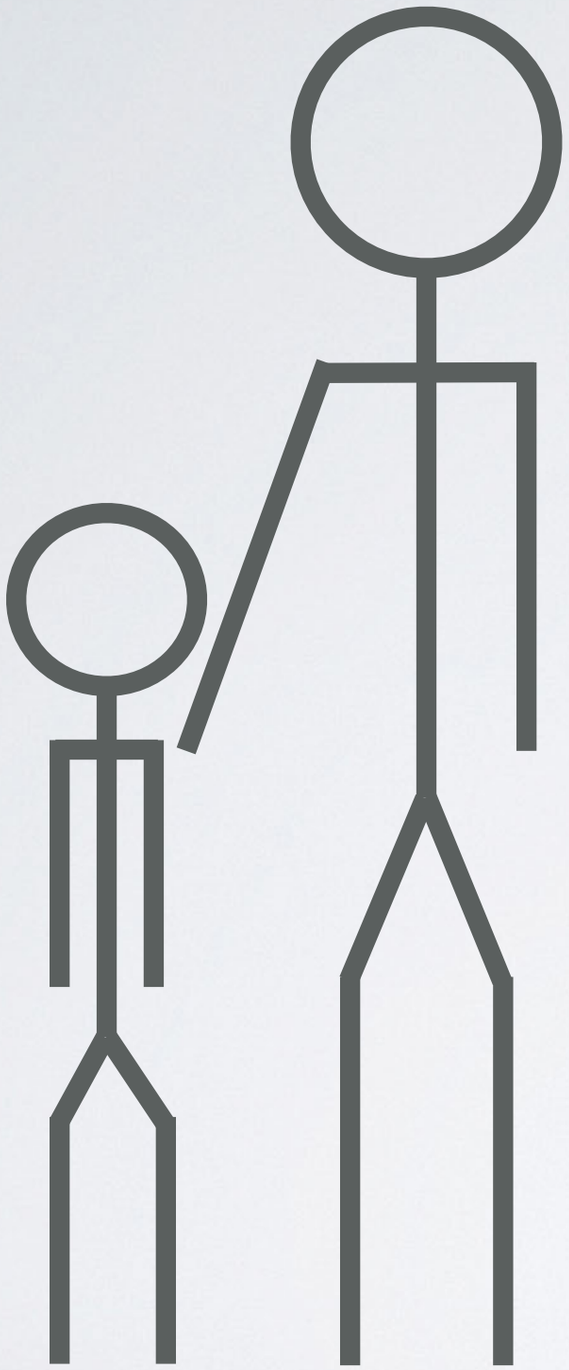


1.6.3
Reassure people while they are having procedures for fractures under local and regional anaesthesia.

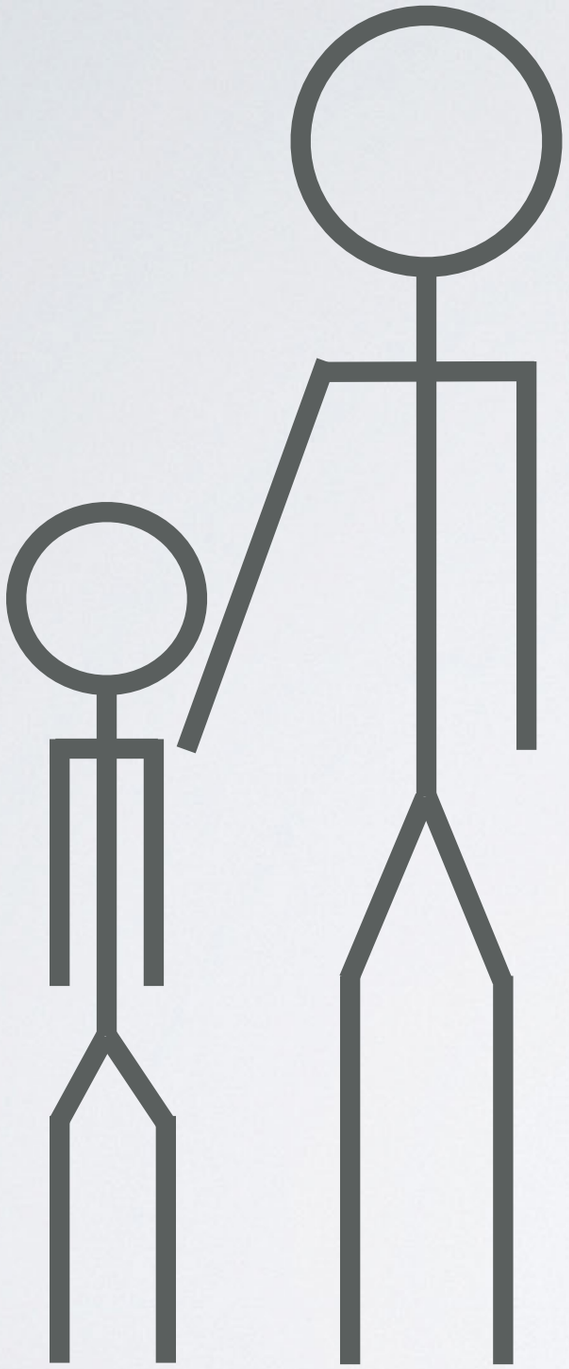
# Support for children and vulnerable adults



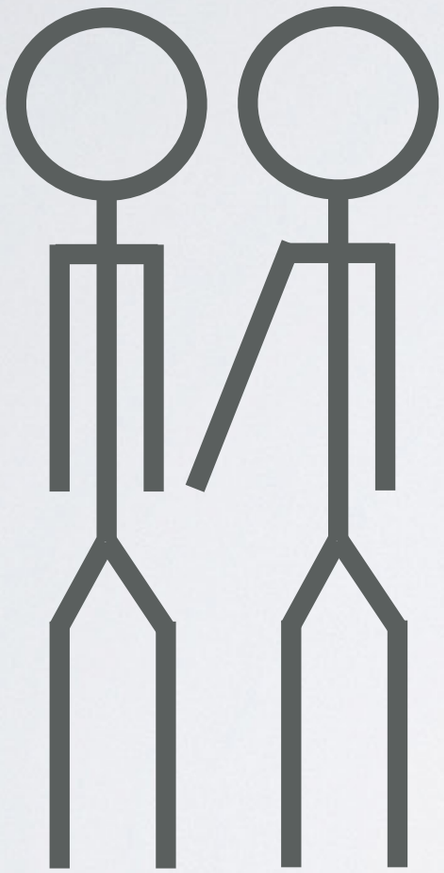
1.6.4
Allocate a dedicated member of staff to contact the next of kin and provide personal support for unaccompanied children and vulnerable adults.



1.6.5
For a child or vulnerable adult with a fracture, enable their family members and carers to remain within eyesight if appropriate.

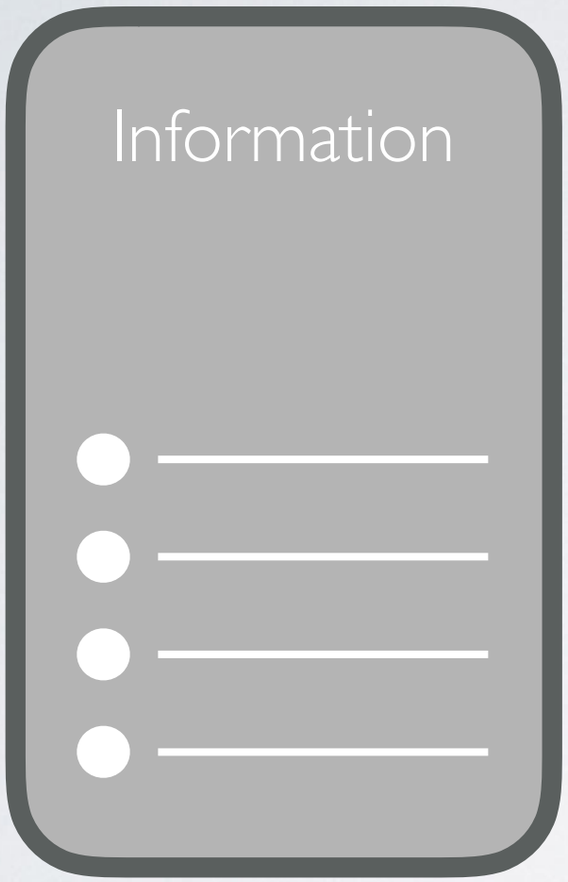


1.6.6
Work with family members and carers of children and vulnerable adults to provide information and support. Take into account the age, developmental stage and cognitive function of the child or vulnerable adult.



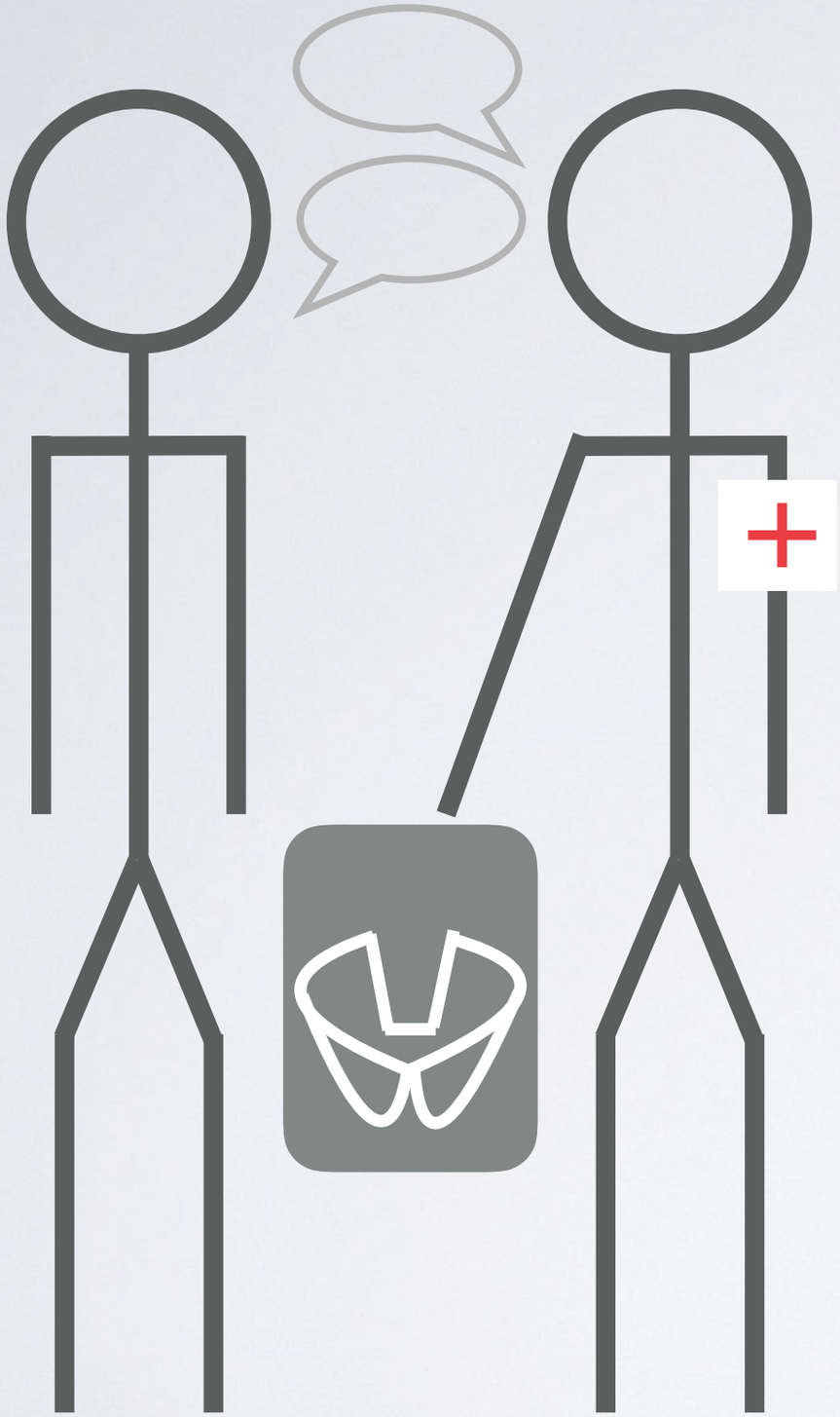
1.6.7
Include siblings of an injured child when offering support to family members and carers.

# Providing information

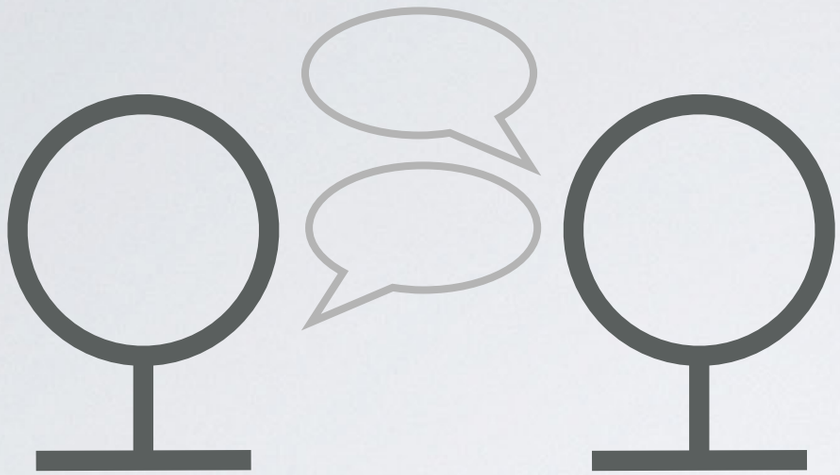


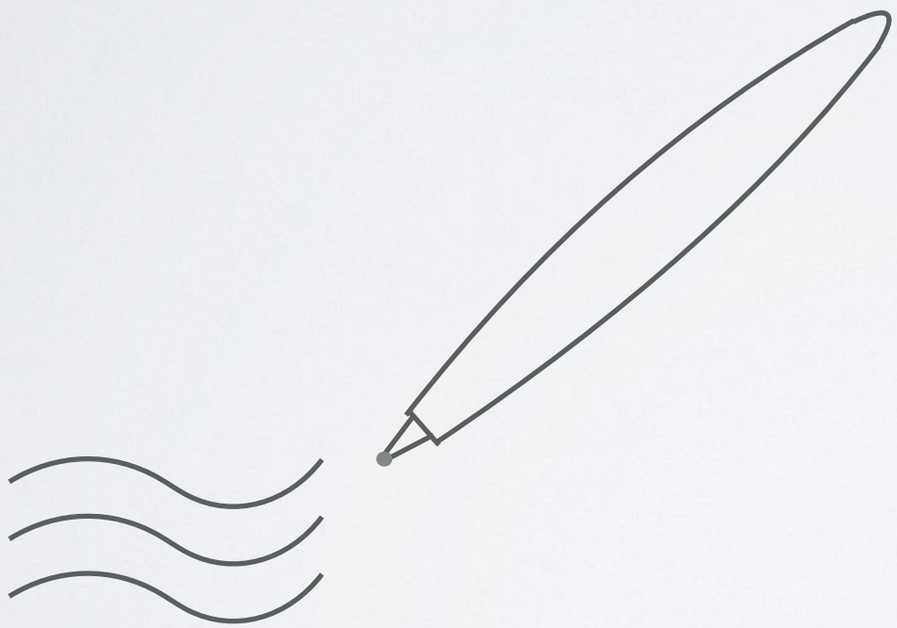

1.6.8
Explain to patients, family members and carers, what is happening and why it is happening. Provide:

- information on known injuries
- details of immediate investigations and treatment, and if possible include time schedules.



1.6.9
Offer people with fractures the opportunity to see images of their injury, taken before and after treatment.





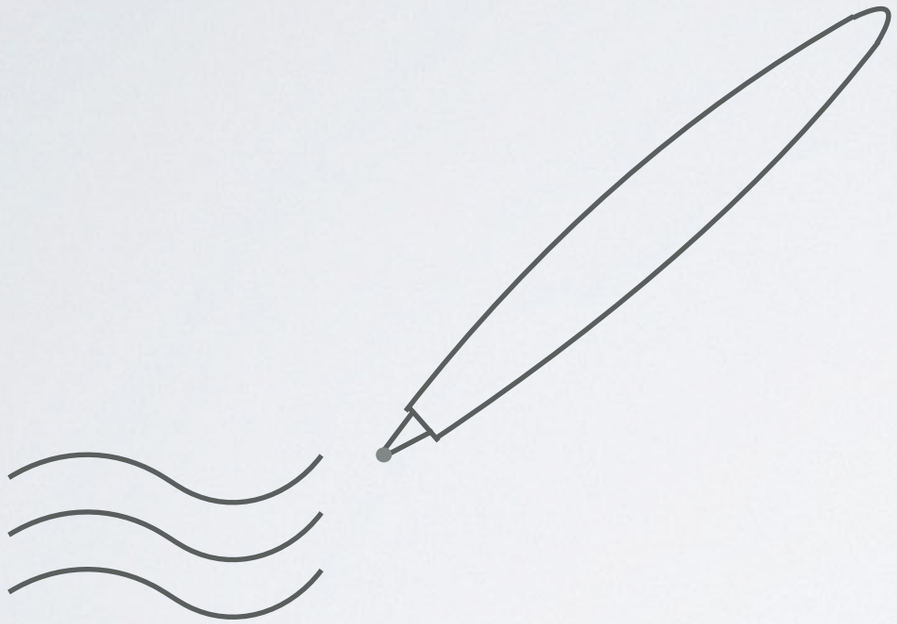
1.6.10
Provide people with fractures with both verbal and written information on the following, when the management plan is agreed or changed:
…

1.6.10 (continued)…

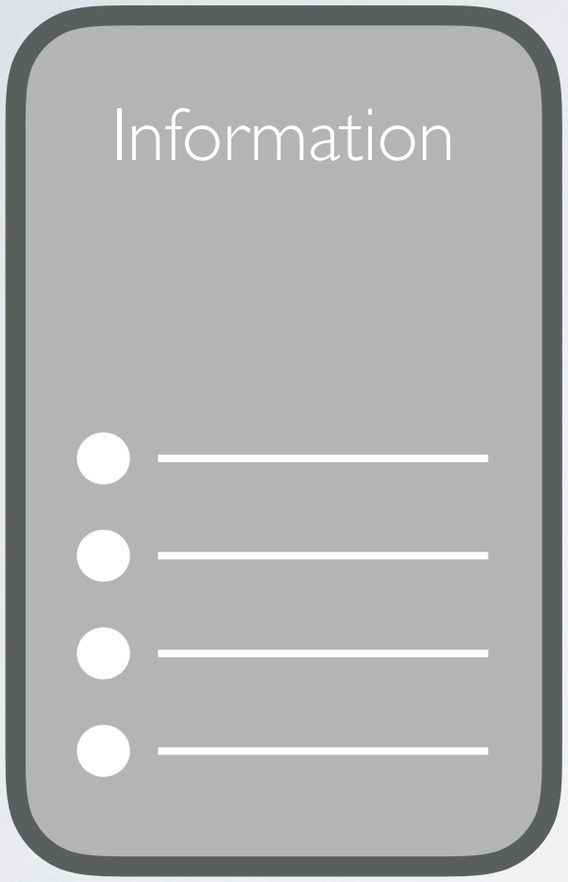
- expected outcomes of treatment, including time to returning to usual activities and the likelihood of permanent effects on quality of life (such as pain, loss of function or psychological effects)
- activities they can do to help themselves
- home care options, if needed …

1.6.10 (continued)…

- rehabilitation, including whom to contact and how (this should include information on the importance of active patient participation for achieving goals and the expectations of rehabilitation)
- mobilisation and weight-bearing, including upper limb load-bearing for arm fractures.



1.6.11
Document all key communications with patients, family members and carers about the management plan.




1.6.12
Ensure that all health and social care practitioners have access to information previously given to people with fractures to enable consistent information to be provided.

# Providing information about transfer from an emergency department

1.6.13
For patients who are being transferred from an emergency department to another centre, provide written information that includes:

- the reason for the transfer
- the location of the receiving centre and the patient's destination within the receiving centre
- the name and contact details of the person responsible for the patient's care at the receiving centre
- the name and contact details of the person who was responsible for the patient's care at the initial hospital.

menu

NAI

# 1.7 NON-ACCIDENTAL INJURY

START

NG38 Fractures (non-complex)

NICE Guideline on when to suspect child maltreatment

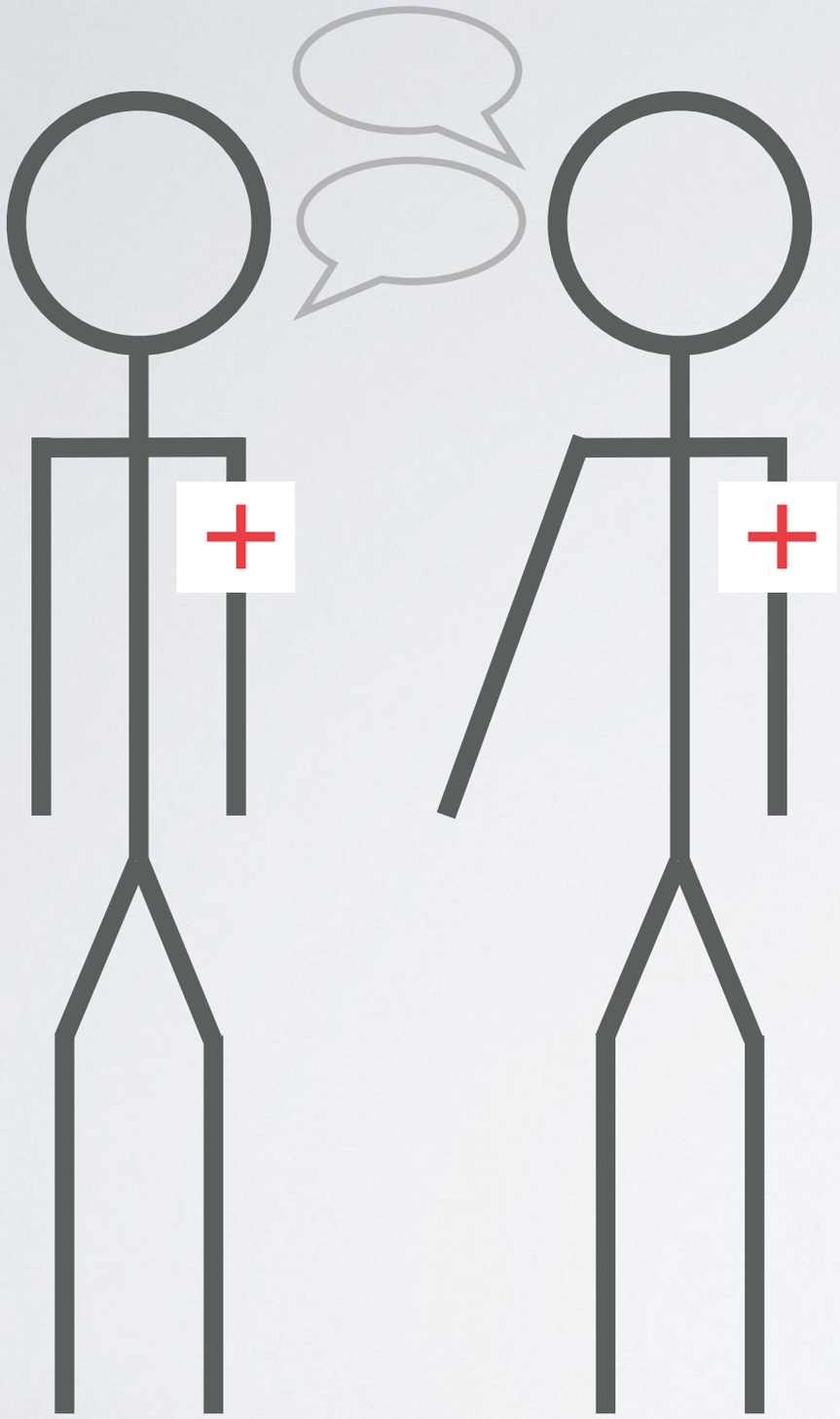
- .....
- .....
- .....
- .....
- .....

1.7.1
Address issues of non-accidental injury before discharge in all children with femoral fractures. This is particularly important for children who are not walking or talking. For more information, see the NICE guideline on when to suspect child maltreatment.

# 1.8 TRAINING AND SKILLS

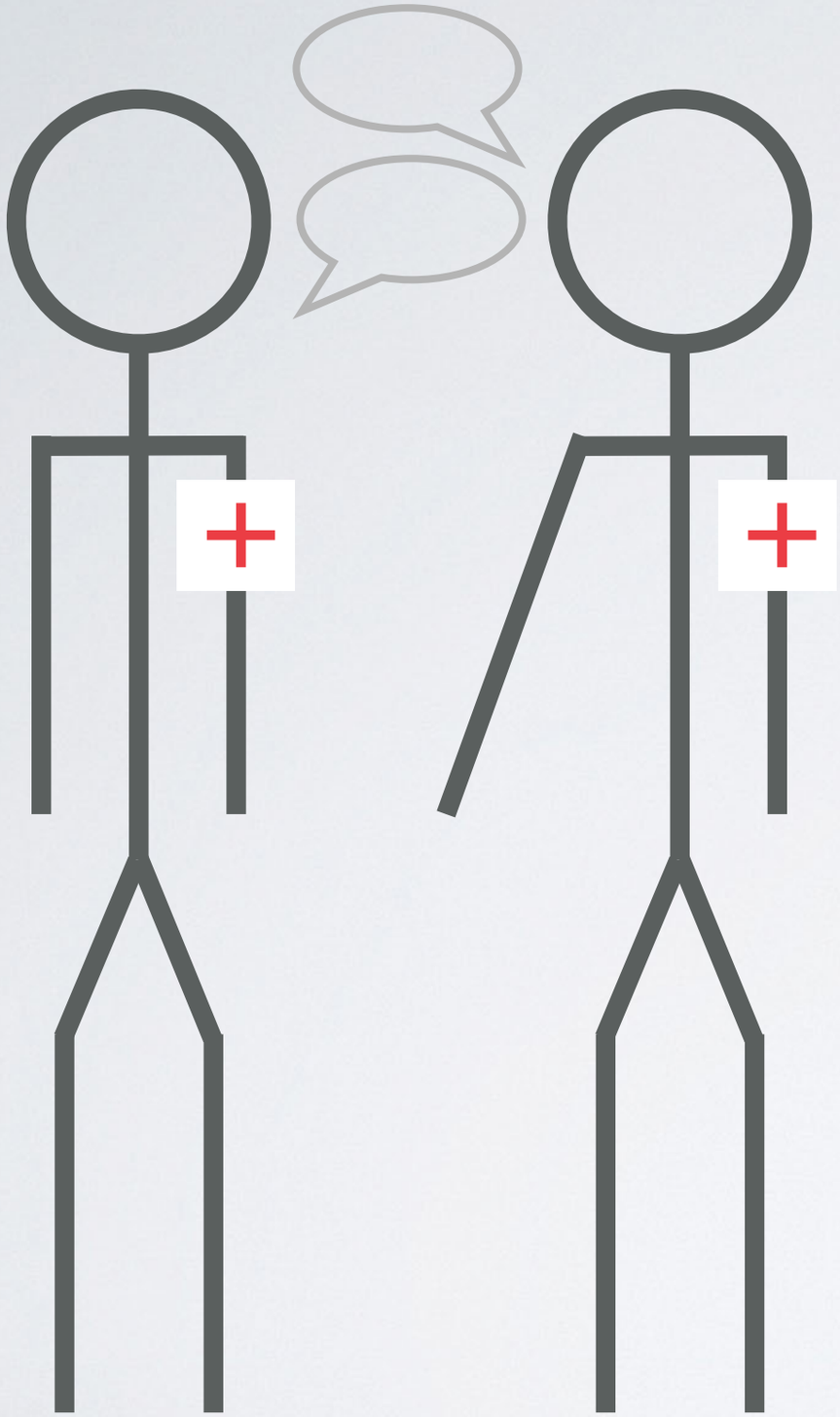
START

These recommendations are for ambulance and hospital trust boards, medical directors and senior managers within trauma networks



1.8.1

Ensure that each healthcare professional within the trauma service has the training and skills to deliver, safely and effectively, the interventions they are required to give, in line with the NICE guidelines on non-complex fractures, complex fractures, major trauma, and spinal injury assessment.



1.8.2
Enable each healthcare professional who delivers care to people with fractures to have up-to-date training in the interventions they are required to give.

menu

Please click below to answer to the following statement;

"This resource met my requirements".

Strongly disagree | Disagree | Neutral | Agree | Strongly agree

menu

# END

To access the full guideline follow this link

http://www.nice.org.uk/guidance/ng38



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