

TRUST TEMPLATE FOR LOCAL CLINICAL GUIDELINE DOCUMENTS

(see Appendix One Guidance Notes)

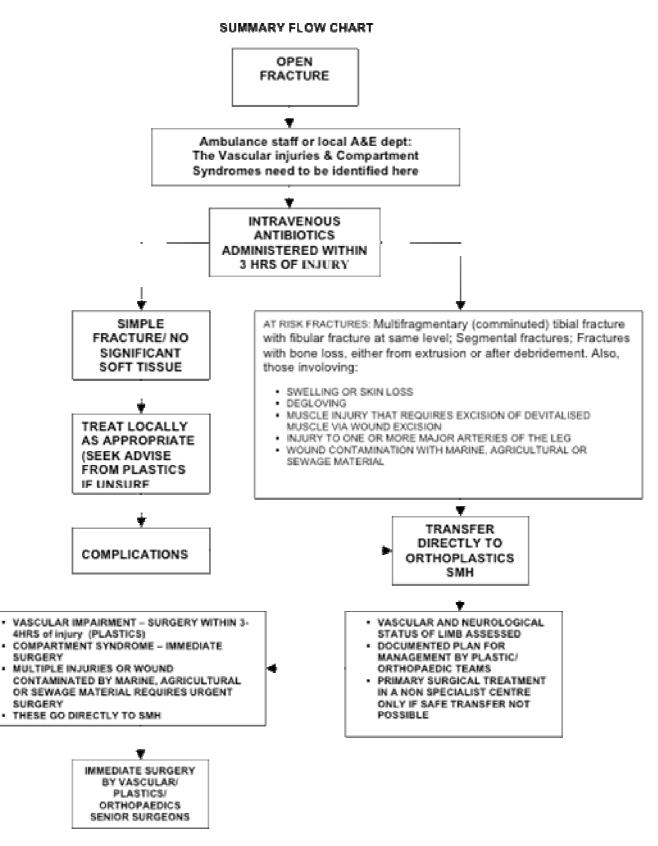
CLINICAL GUIDELINE TITLE (Please note that documents sit alphabetically on The Source so should not start with "Guideline for...")

THE MANAGEMENT OF SEVERE OPEN LOWER LIMB

FRACTURE GUIDELINES

All sections are compulsory and must be completed

1) SUMMARY (flow chart, bullet points, brief text)



2) INTRODUCTION (*explain why this document is required at this time*)

TheBritish Association of Plastic, Reconstructive and Aesthetic Surgeons and the British Orthopaedic Association have reviewed their 1997 guidance and now publish a review of all aspects of the acute management of these injuries using an evidence based approach, leading to the "Standards for the Management of Lower Limb Fractures" which are free to download from <u>www.boa.ac.uk</u>. The standards have been approved by the the College of Emergency Medicine and the antibiotic guidelines by Association of Medical Microbiologists, the British Infection Society

3) **DEFINITIONS** (of key terms in the document)

Included Patients:

All Patients with <u>open</u> fractures must be referred to orthopaedics. Those with the following patterns of injury are referred to the orthoplastic surgical unit at SMH *immediately:*

Fracture Pattern:

- Multifragmentary (comminuted) tibial fracture with fibular fracture at same level
- Segmental fractures
- Fractures with bone loss, either from extrusion or after debridement

Soft tissue injury

- Swelling or skin loss, such that direct, tension-free wound closure is not possible
- Degloving
- Muscle injury that requires excision of devitalised muscle via wound extensions
- Injury to one or more major arteries of the leg
- Wound contamination with marine, agrucultural or sewage material

4) SCOPE (identify which staff, department and patient this relates to)

All staff managing acute lower limb trauma, especially A&E and Orthopaedics based in units where no Plastics unit onsite.

5) FULL GUIDELINE

1. Specialist centres

Principal recommendations

• A multidisciplinary team, including orthopaedic and plastic surgeons with appropriate experience, is required for the treatment of complex open fractures.

• Hospitals which lack a team with requisite expertise to treat complex open fractures have arrangements for immediate referral to the nearest specialist centre.

• The primary surgical treatment (wound debridement/excision and skeletal stabilisation) of these complex injuries takes place at the specialist centre whenever possible.

• Specialist centres for the management of severe open fractures are organised on a regional basis as part of a regional trauma system. Usually these centres also provide the regional service for major trauma.

The characteristics of open injuries that should prompt referral to a specialist centre are based on:

1. Fracture patterns:

(a) Transverse or short oblique tibial fractures with fibular fractures at a similar level

(b) Tibial fractures with comminution/butterfly fragments with fibular fractures at a similar level

- (c) Segmental tibial fractures
- (d) Fractures with bone loss, either from extrusion at the time of injury or after debridement.

2. Soft tissue injury patterns:

(a) Skin loss such that direct tension-free closure is not possible following wound excision

- (b) Degloving
- (c) Injury to the muscles which requires excision of devitalised muscle via wound extensions
- (d) Injury to one or more of the major arteries of the leg.

The specialist centre will need to:

- Include orthopaedic trauma surgery, with special expertise in complex tibial fractures and bone reconstruction.
- Include plastic and microvascular surgery, with expertise in vascular reconstruction.
- Provide facilities for simultaneous debridement by orthopaedic and plastic surgical teams.

• Ensure orthopaedic and plastic surgical planning of management strategy to avoid multiple episodes of treatment, thereby ensuring efficient and optimal patient care.

• Provide dedicated theatre sessions for the combined orthoplastic management of the patients during the normal working day.

• Include microbiology and infectious disease consultants with expertise in musculoskeletal infection.

- Include facilities for emergency musculoskeletal imaging, with angiography and interventional radiology.
- Provide a service for, or have access to, artificial limb fitting and rehabilitation for amputees.
- · Have access to physical and psychosocial rehabilitation services.
- Include audit of outcome as part of the care pathway.
- Aim to reach a throughput of 30 such cases per annum to maintain appropriate skill and experience levels.
- Provide combined orthoplastic clinics and multidisciplinary ward rounds.
- · Possess intensive care and other trauma facilities for the multiply injured patient.

2. Primary management in the emergency department

Principal recommendations

• Initial assessment and treatment of the patient occurs simultaneously and in accordance with Advanced Trauma Life Support (ATLS[®]) principles.

• Assessment of the open tibial injury is systematic, careful and repeated in order to identify established or evolving limb-threatening conditions and to document limb status prior to manipulation or surgery.

- Haemorrhage control is through direct pressure or, as a last resort, application of a tourniquet.
- · Wounds are handled only to
- a. Remove gross contaminants
- b. Photograph for record
- c. Seal from the environment.

• Wounds are not 'provisionally cleaned' either by:

- a. exploration
- b. irrigation.

• In the absence of these criteria, the wound, soft tissue and bone excision (debridement) is performed by senior plastic and orthopaedic surgeons working together on scheduled trauma operating lists within normal working hours and within 24 hours of the injury unless there is marine/ aquatic, agricultural or sewage contamination. The 6 hour rule does not apply for solitary open fractures.

3. Antibiotic prophylaxis

Principal recommendations

• Antibiotics should be administered as soon as possible after the injury, and certainly within three hours.

• The antibiotic of choice is co-amoxiclav (1.2g 8 hourly), or a cephalosporin (eg cefuroxime 1.5g 8 hourly), and this should be continued until first debridement (excision).

• At the time of first debridement, co-amoxiclav (1.2g) or a cephalosporin (such as cefuroxime 1.5 g) and gentamicin (1.5 mg/kg) should be administered and co-amoxiclav/cephalosporin continued until soft tissue closure or for a maximum of 72 hours, whichever is sooner.

• Gentamicin 1.5 mg/kg and either vancomycin 1g or teicoplanin 800mg should be administered on induction of anaesthesia at the time of skeletal stabilisation and definitive soft tissue closure. These should not be continued post-operatively. The vancomycin infusion should be started at least 90 minutes prior to surgery.

• Patients with anaphylaxis to penicillin should receive clindamycin (600mg iv pre-op/qds) in place of co-

amoxiclav/cephalosporin. For those with lesser allergic reactions a cephalosporin is considered to be safe and is the agent of choice.

4. Timing of wound excision in open fractures

Principal recommendations

- Broad spectrum antibiotics are administered as soon after the injury as possible.
- The only reasons for immediate surgical exploration are the presence of:
- a. Gross contamination of the wound
- b. Compartment syndrome
- c. A devascularised limb
- d. A multiply injured patient.

5. Guidelines for wound debridement (excision)

Principal recommendations

• Early, accurate debridement of the traumatic wound is the most important surgical procedure in the management of

open tibial fractures.

• Debridement means excision of all devitalised tissue (except neurovascular bundles).

• Traumatic wounds are excised comprehensively and systematically and the following sequence is followed in all cases:

- Initially, the limb is washed with a soapy solution and a tourniquet is applied

– The limb is then 'prepped' with an alcoholic chlorhexidine solution, avoiding contact of the antiseptic with the open wound and pooling under the tourniquet

– Soft tissue debridement/excision is safely performed under tourniquet control, especially in cases of extensive degloving. This allows identification of key structures such as neurovascular bundles, which may be displaced, and permits accurate examination of tissues by avoiding blood-staining

- Visualisation of the deeper structures is facilitated by wound extensions along the fasciotomy lines

- The tissues are assessed systematically in turn, from superficial to deep (skin, fat, muscle, bone) and from the periphery to the centre of the wound. Non-viable skin, fat, muscle and bone is excised

– At this stage the injury can be classified and definitive reconstruction planned jointly by the senior members of the orthopaedic and plastic surgical team

– If definitive skeletal and soft tissue reconstruction is not to be undertaken in a single stage, then a vacuum foam dressing (or antibiotic bead pouch if significant segmental bone has been lost) is applied until definitive surgery is performed.

6. Bone exposure, decontamination and preservation: debridement

Principal recommendations

• Extension of the traumatic wound is along the nearest fasciotomy incision

• Whilst a bloodless field during soft tissue debridement may be helpful, deflating the tourniquet before bone debridement allows satisfactory confirmation of a 'capacity of the bone ends to bleed'. This is probably the most useful determinant of bone viability.

- Careful surgical delivery of bone ends through the wound extension aids circumferential assessment.
- Particulate foreign matter is removed with periodic irrigation to keep clear visibility of the surgical field.
- Loose fragments of bone which fail the 'tug test' are removed.
- Fracture ends and larger fragments which fail to demonstrate signs of viability are removed.
- Major articular fragments are preserved as long as they can be reduced and fixed with absolute stability.

- Lavage follows, once a clean wound is obtained by a meticulous zone-by-zone debridement.
- High pressure pulsatile lavage is not recommended.

7. Degloving

Principal recommendations

• Degloving of the limb occurs in the plane superficial to the deep fascia and the extent of injury is often underestimated.

• Thrombosis of the subcutaneous veins usually indicates the need to excise the overlying skin.

• Circumferential degloving often indicates that the involved skin is not viable.

• In severe injuries, multi-planar degloving can occur with variable involvement of individual muscles, and these may be stripped from the bone. Under these circumstances, a second look may be necessary to ensure that all the non-viable tissues have been excised prior to definitive reconstruction within seven days.

8. Classification of open fractures

Principal recommendations

• Accurate, simple and reproducible systems for classification of lower limb injuries facilitate communication between health care professionals, assist transfer of appropriate cases to specialist centres and should lead to a treatment plan.

• Limb splintage is the most appropriate means of immobilisation available in the Emergency Department. Provisional external fixators are not applied.

- Antibiotic and anti-tetanus prophylaxis is given.
- In addition to two orthogonal views of the tibia, radiographic assessment includes the knee and ankle joints.
- They provide a platform for conducting detailed audit of care to ensure optimal management of these patients.

• The Gustilo and Anderson grading is widely used and is relatively simple, but has poor inter-observer reliability and is best applied after wound excision.

• Others, such as the AO system, are comprehensive systems best used for audit and data collection of outcomes.

9. Temporary wound dressings

Principal recommendations

Negative pressure dressings may reduce bacterial ingress and tissue desiccation as well as avoid pooling of serous fluid.

• Negative pressure dressings are not used as a substitute for meticulous surgical wound excision.

• Negative pressure dressings are not a substitute for coverage of exposed fractures with vascularised flaps.

• Antibiotic impregnated bone cement beads under a semi-permeable membrane are associated with reduced infection rates.

• These beads are most applicable in patients with segmental bone loss, gross contamination or established infection, perhaps in combination with negative pressure dressings.

10. Techniques for skeletal stabilisation in open tibial fractures

Principal recommendations

• Spanning external fixation is recommended when definitive fracture stabilisation and immediate wound cover is not carried out at the time of primary debridement.

• Fracture patterns and bone loss determine the most appropriate form of definitive skeletal stabilisation.

• Exchange from spanning external fixation to internal fixation is done as early as possible.

• Internal fixation is safe if there is minimal contamination and soft tissue coverage is achieved at the same time as insertion of the implant.

• Modern multiplanar and circular fixators are used if there is significant contamination, bone loss and multilevel fractures of the tibia.

11. Timing of soft tissue reconstruction

Principal recommendations

• Local flaps are safely performed at the same time as skeletal fixation. Internal fixation is only undertaken if soft tissue coverage can be performed at the same time.

• Free flap reconstruction is best performed on scheduled trauma lists by experienced, dedicated senior surgical teams following adequate preparation of the patient, including imaging such as angiography or CT scanning of comminuted fractures. This should be undertaken in a specialist centre.

• There is little evidence for the five-day rule. Microsurgery is best performed before the vessels become friable or fibrosed and this becomes increasingly likely after the first week. We recommend that definitive soft tissue reconstruction be undertaken within the first seven days after injury.

12. Type of soft tissue reconstruction

Principal recommendations

• All open fractures are covered with vascularised soft tissue.

• Dressings such as those using foam with negative pressure can temporise following wound excision, but are not to be used as a substitute for definitive flap coverage.

• Relatively low energy tibial fractures are covered by local fasciocutaneous flaps so long as the vascularity has not been compromised by the zone of injury and degloving.

• Strong clinical evidence to support the use of one form of soft tissue cover over another in open tibial shaft fractures is absent. However, available experimental data would suggest that diaphyseal tibial fractures with periosteal stripping are best covered by muscle flaps instead of fasciocutaneous flaps.

• Metaphyseal fractures, especially those around the ankle, are best covered by fasciocutaneous flaps, including free flaps.

13. Compartment syndrome

Principal recommendations

• Compartment syndrome is a surgical emergency and must be diagnosed promptly and treated.

• The early signs are paraesthesia in the distribution of the sensory nerves passing through the affected compartment and disproportionate pain, especially on passive stretch of the affected muscles.

• These important signs may be affected by the previous administration of peripheral nerve blocks and regional anaesthesia, as well as by the presence of nerve injury.

• Compartment syndrome does not usually result in the loss of peripheral pulses. Absent pulses should alert the surgeon to the possibility of vascular injury.

• Intra-compartment pressure measurement is performed most reliably using devices designed specifically for this purpose. A difference of 30mmHg or less between the measured pressure and the diastolic blood pressure is a reasonable threshold for decompression.

• Every effort is made to achieve an accurate diagnosis because inappropriate fasciotomy can be associated with significant morbidity.

• The two incision technique provides optimal access for four compartment decompression. The medial incision does not compromise the availability of available local fasciocutaneous flaps. It can also be used to extend pre-existing traumatic lacerations to achieve access for debridement as well as provide an approach to the posterior tibial vessels as recipient vessels for free flaps.

• All non-viable muscle is excised and fasciotomy wounds either closed with split skin grafts or directly, if possible, once the swelling has reduced.

• A late diagnosis of compartment syndrome is a management dilemma. Once the muscle is no longer viable, compartment release will predispose to infection, and may result in compartmentectomy or amputation of the limb.

14. Vascular injuries

Principal recommendations

 Devascularised limbs are a surgical emergency. They are recognised immediately and require urgent surgical exploration. The aim is to restore circulation within three to four hours of the injury, after which muscle death begins.
 The maximum acceptable delay is six hours of warm ischaemia time.

• Capillary refill in the toes can be misleading and, if the circulation is not normal compared to the contralateral limb, there is a low threshold for exploration.

• Absent peripheral pulses are not attributed to vascular spasm or compartment syndrome. A major vascular injury is always considered and senior surgical opinion is sought.

• Preoperative angiography in the devascularised limb wastes valuable time. It is possible to define the level of injury from the fracture configuration and any site of dislocation.

• Shunting significantly reduces the morbidity associated with these injuries by reducing the ischaemic time. Muscle suffers irreversible ischaemic damage within three to four hours of complete ischaemia. Nerves are also susceptible to ischaemic injury.

- Once the circulation is restored, the limb is reassessed with regard to the potential for salvage.
- The skeleton is then stabilised before replacing the shunts with reversed vein grafts.

• Proximal to the level of the trifurcation, any deep venous injury is also reconstructed.

Access incisions for vascular repair take into account the necessity for flap cover and the presence of adjacent fractures.

• Fasciotomy is performed if indicated by the presence of raised intra-compartmental pressures compared to the diastolic blood pressure. However, it is important that these measurements are performed repeatedly, as muscle swelling may not develop until several hours after revascularisation (see section 13).

• The presence of a single patent artery to the foot is not a contraindication to free flap reconstruction using end-toside anastomoses. In this situation, reconstruction of the injured vessels is considered, especially the posterior tibial artery.

15. Open fractures of the foot and ankle

Principal recommendations

• These are particularly challenging injuries owing to the limited local soft tissue flap options, likelihood of injury to the neurovascular bundles, intra-articular fractures predisposing to poor long term function, and difficulty in stabilising the fractures.

• Amputation is considered when the final functional outcome following reconstruction is likely to be inferior to a transtibial amputation. This is especially likely to be the case for a 'floating ankle' injury or crush injuries with an open midand forefoot.

• Initial skeletal stabilisation is achieved with a spanning external fixator, avoiding fibular plating. There are inherent difficulties in stabilising these fractures as the anchor points for most spanning external fixators rely on an intact os calcis/talus/metatarsals.

• Definitive skeletal fixation is performed at the time of soft tissue coverage. The exact configuration will depend on the fracture pattern, with intra-articular fractures usually best managed by internal fixation. Internal fixation is not

recommended in the absence of adequate soft tissue cover, as this may be associated with an increased risk of deep sepsis.

• Degloved plantar skin: a. If suprafascial, is defatted and replaced as full-thickness graft

b. If subfascial and proximally based, is sutured back without tension c. If subfascial and distally based, is considered for revascularisation.

• Plantar soft tissue loss is best managed using fasciocutaneous flaps, and reinnervation may confer some protection against the development of neuropathic ulceration. Dorsal skin loss can be managed by split skin grafts or thin, free fasciocutaneous flaps.

• Open pilon fractures are stabilised with a spanning external fixator. If the planned definitive treatment is internal fixation of the tibial plafond, and provided the soft tissues permit, open reduction and internal fixation of the fibula at primary surgery may help to assist maintain the limb out to length. Soft-tissue cover should be by way of thin, pliable fasciocutaneous flaps.

• Injuries to the posterior tibial nerve are accurately assessed and consideration is given to reconstruction of segmental defects of the posterior tibial artery with autologous vascular graft. End-to-end anastomoses to avulsed vessels are performed with care as it can be difficult to assess the extent of intimal damage.

• Open hind-foot injuries are managed as for a diaphyseal injury when only one articular surface is involved. When there is greater disruption of the hind-foot, a trans-tibial amputation is considered.

• Isolated open mid-foot injuries are often caused by heavy objects falling on the foot. These result in significant postoperative stiffness and pain due to ligamentous disruption and again, amputation is considered.

• Open forefoot injuries involving the first metatarsal are treated as aggressively as open diaphyseal injuries. When the other metatarsals are injured in isolation, a ray amputation results in a reasonable return to ambulation.

16. When things go wrong with soft tissues

Principal recommendations

• Necrosis of a local flap over the fracture site is managed by early return to theatre and revision surgery to achieve healthy soft tissue coverage.

• Limited tip congestion may respond to leech therapy.

• Some local fasciocutaneous flaps may be more prone to develop complications in patients with co-morbidities.

• Free flap complications are reduced by patient preparation, careful planning and performing the anastomoses outside the zone of injury, ideally proximally.

• There is a low threshold for immediate re-exploration of a free flap with suspected circulatory compromise.

• Deep infection requires a return to fracture site exploration, debridement, dead space management and antibiotic therapy. Fracture fixation may need revision.

17. When things go wrong with bone

Principal recommendations

- Early complications with bone occur as a consequence of the original injury or from surgery.
- Problems that present are:
- a. wound leakage
- b. sepsis
- c. loss of alignment.

• Common causes include inadequate debridement, haematoma formation, inappropriate or delayed soft tissue cover and unstable fixation. Each cause is sought and remedied promptly.

• An expectant approach is seldom fruitful and, if adopted, should be for a limited period only.

• A decision to intervene is taken if there is failure to improve.

• Early problems can exert an undue influence on the final outcome unless weighed for their significance and acted upon appropriately and promptly.

• Discussion of the case with the nearest specialist centre is encouraged and gives the opportunity to correct the problem at the earliest opportunity.

18. Guidelines for primary amputation

Principal recommendations

• A primary amputation is performed as a damage control procedure if there is uncontrollable haemorrhage from the open tibial injury (usually from multiple levels of arterial / venous damage in blast injuries), or for crush injuries exceeding a warm ischaemic period of six hours.

• Primary amputation is also needed for incomplete traumatic amputations where the distal remnant is significantly injured.

• A primary amputation is considered an option when injury characteristics include one or several of the following:

- avascular limbs exceeding a four to six hour threshold of warm ischaemia

- segmental muscle loss affecting more than two compartments

- segmental bone loss greater than one third the length of the tibia.

• Absent or reduced plantar sensation at initial presentation is not an indication for amputation.

• Amputation levels are preferably trans-tibial or trans-femoral (if salvage of the knee is not possible). Through-theknee amputations are not recommended for adults.

• The decision to amputate primarily should be taken by two consultant surgeons with, if possible, patient and family involvement.

• Discussion with the nearest specialist centre is advised when there is uncertainty or disagreement between surgeon recommendations and patient/family wishes.

19. Outcome measures

Principal recommendations

• Patient health status questionnaires such as Sickness Impact Profile and Medical Outcomes Study Short Form-36 (SF-36) provide a valuable overall assessment of the patient.

• Union time of diaphyseal fractures can be difficult to assess but is an accepted outcome measure.

• Rates of significant complications such as deep infection, flap failure and secondary amputation are recorded.

• Limb function scores such as the Enneking Score, which is expressed as a percentage of the contralateral uninjured limb, are recommended.

• Peri-articular injuries ideally should include measures of the affected joints.

20. Management of severe open fractures in children

Principal recommendations

• The wound for open children's fractures is debrided (excised) as recommended for adults. There is no evidence to suggest that tissues with compromised viability are more likely to recover in children compared to adults.

• Skeletal fixation is determined by the fracture configuration. The use of intramedullary devices may be limited by the presence of growth plates.

• The available evidence suggests that children under the age of twelve years (prepubertal) are likely to have shorter

union times.

• Soft tissue reconstruction for open fractures in children of all ages relies on vascularised flaps, as it does for adults.

6) IMPLEMENTATION

Training required for staff	Yes N	o x
If yes, who will provide training:		N/a
Please give name/post		
When will training be provided?		N/a
Please give date		
Date for implementation of guideline:		Immediate
(after the process of ratification)		

7) MONITORING / AUDIT

When will this guideline be audited? Please give approximate date	This is continually audited with data submitted nationally to the Trauma Audit & Research Network.
Who will be responsible for auditing this guideline? Please give name/post	Mr Shehan Hettiaratchy, Chief of Service & Consultant Plastic Surgeon.
Are there any other specific recommendations for audit?	No

8) REVIEW

Frequency of review	Please indicate frequency of review:
As a guide:Drug related guidance should be reviewed every	(please use this to calculate review date in Section 11)
 2 years Therapy related guidance should be reviewed every 5 years 	Person and post responsible for the review: Mr Shehan Hettiaratchy
 Clinical treatment guidance should be reviewed every 3 – 5 years 	,

9) REFERENCES

List all references using the Harvard style. However, if references are included within the main body of the document, they do not then need to be reproduced here.

Jagdeep Nanchahal, Selvadurai Nayagam, Umraz Khan, Christopher Moran, Stephen Barrett, Frances Sanderson,

Ian Pallister, Hamish Laing: "Standards for the Management of Open Fractures of the Lower Limb" Edition 1:

Published London, September 2009 British Association of Plastic Reconstructive and Aesthetic Surgeons and The

British Orthopaedic Association

10) GUIDELINE DETAIL

Start Date:	Immediate
(date of final approval by Division)	
Approval Dates	Enter name of Divisional group:
	Date of ratification:
	Enter name of Directorate group:
	Date of ratification:
Have all relevant	Please list all (name and role):
stakeholdersbeen included in	Plastic & Reconstructive Surgery
the development of this	Trauma & Orthopaedics
guideline?	Emergency Medicine
(Trust sites, Divisions and	
Directorates)	
Who will you be notifying of	Please give names/depts:
the existence of this guidance?	Plastic & Reconstructive Surgery
	Trauma & Orthopaedics Emergency Medicine
Related documents	
(if applicable)	
Author/further information	Name: Mr Shehan Hettiaratchy
	Title: Chief of Service & Consultant Plastic Surgeon
	Division: Plastics, Orthopaedics, ENT & Major Trauma Services
	Site: SMH / CXH
	Telephone/Bleep: 020 3311 1790
	Trust email address:Shehan.Hettiaratchy@imperial.nhs.uk
Document review history	Next review due:
(If applicable – version number,	August 2017
dates of previous reviews)	
THIS GUIDELINE REPLACES:	The Management of Severe Open Lower Limb Fracture Guidelines V1, 2009
(list the title of the replaced guideline, its archive location and	
previous versions where known)	

11) INTRANET HOUSEKEEPING

Key words	Fracture, lower limb, compartment syndrome
Which Division/Directorate category does this belong to?	Surgery, Cadiovascular and Cancer
Which specialty should this belong to when appearing on The Source?	Plastic Surgery & Orthopaedic Surgery

12) EQUALITY IMPACT OF GUIDELINE

Is this guideline anticipated to have any significant equality-related impact on patients, carers or staff? Yes No x

If 'Yes', please complete the 'Appendix Two: Equality Impact Assessment Screening Tool' below

Appendix One: Clinical Guidelines – Guidance Notes for Authors

These guidelines are for staff based within Imperial College Healthcare NHS Trust.

Differences between POLICY and GUIDELINE

POLICY is expected to reflect that the content is mandatory in nature, whereas a GUIDELINE, though evidence based and agreed by peers, is intended as advisory, applicable in most cases but open to deviation should the specifics of a particular clinical situation demand it. If you are writing a Policy document, use the separate Policy template which is available on The Source within the document "Process for the Development and Management of Procedural Documents Policy".

Model specification for a clinical guideline

The title of the guideline should be succinct and precise, reflecting the content so that title searches on the Intranet have maximum chance of succeeding. Avoid starting titles with 'Guideline for' or 'Management of' or similar phrases of introduction.

- It is good practice to include an introduction to your guideline. This can also be used to define the target audience (e.g. a junior doctor who needs to deal with a clinical problem for a few hours).
- The applicability of the guideline should be clearly stated in the introduction.
- It should be as concise and easy to use as possible and outline a step-wise approach to management, emphasizing things that are essential.
- If high quality national guidelines on a topic exist, it will generally be appropriate to adopt or adapt these. Material differences from recommendations in national guidelines should be explicitly justified.
- References to drugs should be precise and both clinically and economically optimal.
- A summary should be included if this is likely to help the user.
- The date of the final draft and a scheduled review date should be stated.
- Abbreviations should first be stated in full on their initial usage in the document
- References, if cited, should be in the form: Oxman AD et al. Users' guides to the medical literature, VI How to use an overview. JAMA 1994; 272: 1367-71.

How to publish a guideline on The Source

Each service is encouraged to develop its own guidelines (and indeed many have already done this). Each Division can work independently on their portfolio of guidelines. Before finalising a guideline authors should seek comments on a draft from any professional group or specialty that may have an interest, e.g.

- Pathology
- Imaging
- Pharmacy
- Therapies (physiotherapy, dietetics, speech, occupational therapy)
- Nursing
- Divisional management
- Other Divisions
- A & E

The guideline should also be approved at Divisional level.

Appendix Two: Equality Impact Assessment Screening Tool

Title of Clinical Guideline:	
Division and Directorate:	
Name of Person Responsible for this Equality Impact	
Assessment:	
Date of Completion:	

Aims and purposes of this Clinical Guideline:

Insert a summary of the available evidence for each strand, including statistical such as percentages, as well as qualitative data, such as survey results, in the blank field in each category row. Indicate whether there is (or is likely to be) any significant impact on anyone or any group in relation to the following Equality Strands, and whether or not it is justified. Select from the following options:

ІМРАСТ	JUSTIFICATION
YES – there is significant impact	Justified
NO – there is no significant impact	Not justified
There is insufficient data	Not applicable

	Summary:		
Ethnicity/Race	Impact:	Justification:	
	Summary:		
Disability	Impact:	Justification:	
	Summary:		
Gender/Sex	Impact:	Justification:	
	Summary:		
Religion/Belief	Impact:	Justification:	
	Summary:		
Sexual Orientation	Impact:	Justification:	
	Summary:		
Age	Impact:	Justification:	
	Summary:		
Deprivation	Impact:	Justification:	

If further evidence is required to complete this screening tool, take steps to obtain it before proceeding with the assessment. If the review of evidence indicates that there is a significant unjustified impact in at least one category, a Full Equality Impact Assessment must be carried out.