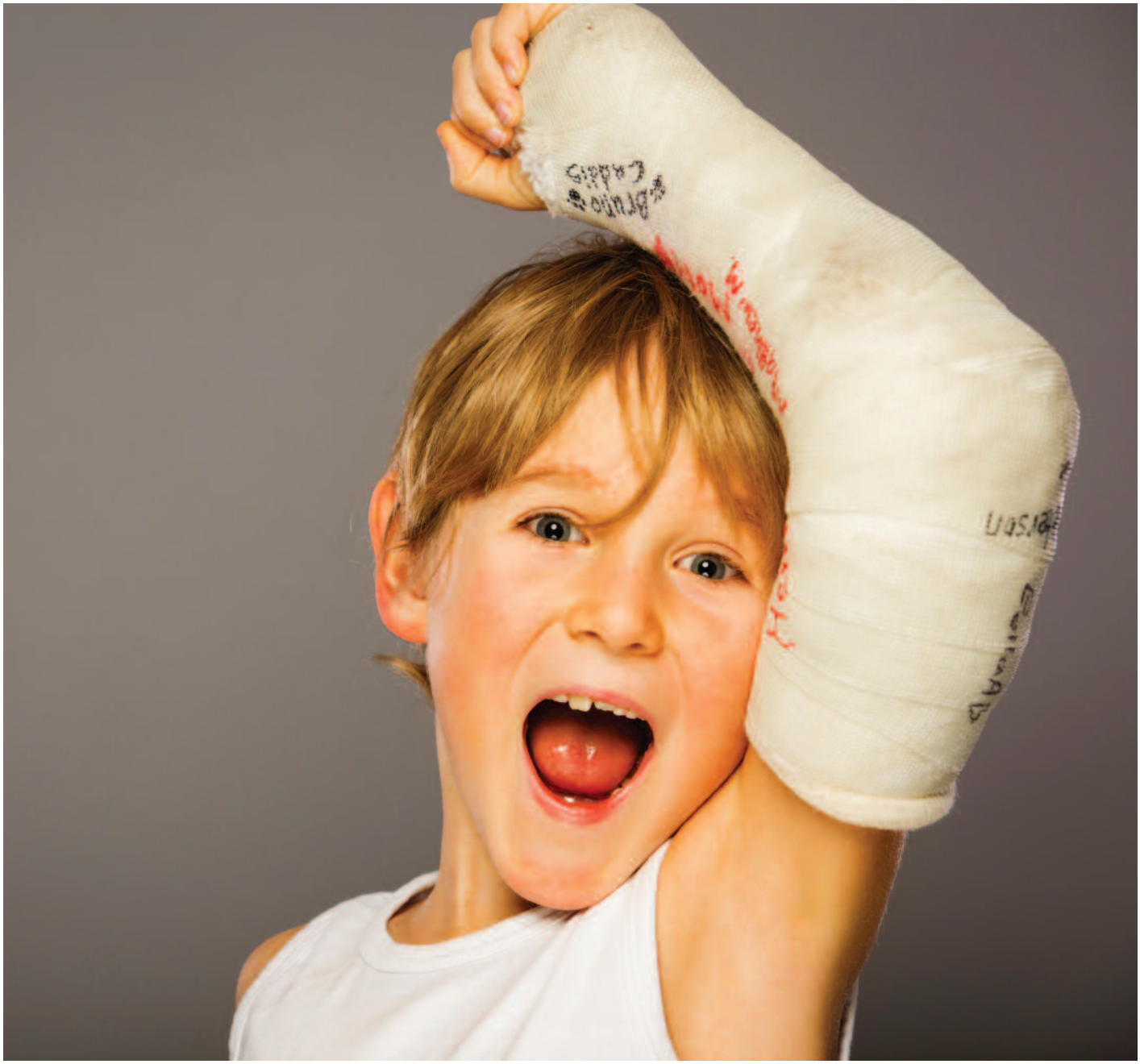
Royal College of Nursing

# Benchmarks for children's orthopaedic nursing care

*RCN guidance*



Royal College of Nursing

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**Julia Judd** (Co-Chair POSIG), Advanced Nurse Practitioner, Paediatric Orthopaedics, Southampton University Hospitals NHS Trust

**Elizabeth Wright** (Co-Chair POSIG), Advanced Nurse Practitioner, Paediatric Orthopaedics, Southampton University Hospitals NHS Trust

**Siobhan Lalor-McTague,** Matron for Children's Services, Royal National Orthopaedic Hospital NHS Trust

**Jo Capron**, Clinical Nurse Educator for Paediatrics, Royal National Orthopaedic Hospital NHS Trust

**Nikki Critchley**, Senior Ward Sister, Southampton University Hospitals NHS Trust

**Hannah Brown**, Senior Staff Nurse, RN Child, Great Ormond Street Hospital for Children NHS Trust

**Angie Lee,** Advanced Nurse Practitioner, Paediatric Orthopaedics and Trauma, Royal Berkshire NHS Foundation Trust

**Pauline Heaton**, Clinical Nurse Specialist, Central Manchester and Manchester Children's University Hospitals NHS Trust

**Carole Irwin**, Practice Educator, Orthopaedic and Trauma Surgery, Head and Neck, Great Ormond Street Hospital for Children NHS Trust

**Revised May 2013 by the RCN Children and Young People's Orthopaedic and Trauma Community Core Members:**

**Angie Lee** (Co-chair) Paediatric Nurse Consultant, Paediatric Orthopaedics and Trauma, Royal Berkshire NHS Trust.

**Jo Payne** (Co-chair) Sister, Emergency Department, Watford General Hospital.

**Elizabeth Wright**, Advanced Nurse Practitioner, University Hospitals Southampton

**Julia Judd**, Advanced Nurse Practitioner, University Hospitals Southampton

**Clare Kehoe**, Lead Nurse/Named Nurse, Children's Service, RNOH Stanmore

**Pauline Heaton**, Clinical Nurse Specialist, Lead Practitioner, Spinal Unit, Royal Manchester Children's Hospital

**Craig Walsh**, Paediatric Orthopaedic Nurse Specialist, Oxford Children's Hospital

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# Benchmarks for children's orthopaedic nursing care

*RCN guidance*

## Contents

# Introduction

This document provides a portfolio of evidenced-based benchmarks, which define best practice in key elements of paediatric orthopaedic nursing care. They were devised by a core team of expert, experienced nurses and more recently updated by members of the Children and Young People's Orthopaedic and Trauma community to identify the optimal care management for children and young people with an orthopaedic condition. The benchmarks are based on the format of The Essence of Care (DH, 2001) to help practitioners 'to identify best practice and to develop action plans to improve care'. The statements and indicators are aimed to stimulate discussion, help measure individual practice and guide staff to review the various issues surrounding each benchmark. The benchmarks are easy to use and auditable, and can be used to inform, update and change practice.

This document provides a portfolio of evidenced-based benchmarks, which define best practice in key elements of paediatric orthopaedic nursing care. They have been devised by a core team of expert, experienced nurses from the children and young people's orthopaedic and trauma community (CYPOTC) to identify the optimal care management for children and young people with an orthopaedic condition. The benchmarks are based on the format of The essence of care (DH, 2010) to help practitioners 'to identify best practice and to develop action plans to improve care'. The statements and indicators are aimed to stimulate discussion, help measure individual practice and guide staff to review the various issues surrounding each benchmark. The benchmarks are easy to use and auditable, and can be used to inform, update and change practice.

## General guidance for the use of the benchmarks

Each benchmark consists of factors which consist of two statements. One is the worst case scenario and the other, the 'gold' standard.

Indicators of best practice are provided to facilitate team discussion and consideration to the grading to be allocated.

For example, if the team are able to answer 'YES' to each indicator for best practice, an 'A' grade can justifiably be given. If a 'NO' answer is applicable to one or more indicators of best practice, the team need to decide on the grade that is most applicable. The comments section can be used to give supporting information to explain the reason for the allocated grade.

1 **Benchmark 1**

# Pre-operative assessment

## Pre-operative assessment for child/young person admitted for elective orthopaedic surgery

| Scorer name | Title | Signed |
|---|---|---|
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| | | |

## Factor 1: Screening and assessment

Child/young person is not given the opportunity to come for a pre-assessment appointment.

**Benchmark of best practice**

Child/young person to be admitted for elective surgery is given the opportunity to come for a pre-assessment appointment.

E D C B A

### Indicators of best practice for factor 1

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- assessment of children/young people to identify potential risk and the initiation of a discharge plan
- adequacy and inclusion of the components of the screening assessment and what tools are used
- documentation of the screening assessment
- screening assessment is carried out within acceptable time frame
- inclusion of a manual handling assessment
- evidence base used for assessment is current.

| Score |
|---|
| Justify score marked |

## Factor 2: Practitioner competence

Child/young person is assessed by practitioners who do not have the required specific knowledge and expertise.

**Benchmark of best practice**

Child/young person is assessed by a practitioner who has the knowledge and expertise, and remains up-to-date.

E D C B A

### Indicators of best practice for factor 2

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- knowledge and expertise required for completing screening and assessment and the process for maintaining and remaining up-to-date
- put in place mechanisms to assess the competence of the screeners and assessors
- access specialist assessment if required
- document assessment for use by the caring team.

| Score |
|---|
| Justify score marked |

## Factor 3:
## Informing the child/young person and their carers

Child/young person and carers have no access to information.

**Benchmark of best practice**

Child/young person and carers have access to information and have the opportunity to discuss this with a registered practitioner at assessment.

E D C B A

### Indicators of best practice for factor 3

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- range of information available and its format to meet children/young people's or carers' individual needs, such as language, tapes, videos and leaflets
- evidence base for the information
- children/young people's understanding of the information is verified and choices are documented
- record sharing and understanding of information.

| Score |
| --- |
| Justify score marked |

## Factor 4:
## Implementation of an individualised plan

There is no evidence of a written care plan or evidence of the care being given according to a plan.

**Benchmark of best practice**

The assessment leads to an individualised plan that is fully implemented in partnership with the multidisciplinary team (MDT), child/young person and carers.

E D C B A

### Indicators of best practice for factor 4

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- barriers to the implementation of planned care and how variance is recorded
- document how the multidisciplinary team is involved
- how the parents and child/young person are involved
- the requirement to measure for a post-operative brace or splint.

| Score |
| --- |
| Justify score marked |

## References

Great Ormond Street Children's Hospital Trust (2002) *Pre-admission clinic: family factsheets*, London: GOSH Trust.

Lowry L and Lewis V (2004) Redesigning an orthopaedic pre-assessment clinic, *Journal of Orthopaedic Nursing*, 8(2), pp.77-82.

Thomas D (1996) Assessing children it's different, *RN*, April, pp.38-44.

2 **Benchmark 2**

# Cast and orthotics care

## Care of a child/young person in a cast

| Scorer name | Title | Signed |
|---|---|---|
| | | |
| | | |
| | | |
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## Factor 1: Education and training

Nurses who have no cast care training care for the child/young person.

**Benchmark of best practice**

Child/young person is cared for by nurses who have knowledge and expertise in all aspects of caring for a cast.

E D C B A

### Indicators of best practice for factor 1

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- nurses have attended formal training by a qualified and competent practitioner
- nurses have completed practical competencies with annual updates and these are documented
- nurses are trained in neurovascular observations (refer to benchmark 3) and cast complication.

| Score |
|---|
| Justify score marked |

## Factor 2: Patient care

Child/young person does not receive care from a competent and knowledgeable practitioner and is not referred to the MDT team for additional support.

**Benchmark of best practice**

Child/young person receives care from competent and knowledgeable nurses and has access to MDT for additional care and support.

E D C B A

### Indicators of best practice for factor 2

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- type of cast – plaster of Paris, synthetic – and its specific care
- handling and positioning of cast – upper/lower limb, hip spica, broomstick plasters etc
- cast is handled carefully when wet to avoid undue pressure and potential damage
- carry out regular assessment, for example, neurovascular observations, ooze, tightness, sharp edges, whether loose or cracked. Take appropriate action
- documentation of above
- daily review by MDT, for example physiotherapist, occupational therapist, as needed.

| Score |
|---|
| Justify score marked |

## Factor 3:
## Upper body cast

Child/young person receives minimal care, teaching and discharge advice.

**Benchmark of best practice**
Child/young person is cared for by the MDT meeting all aspects of their needs.

E D C B A

### Indicators of best practice for factor 3

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- type of cast, for example backslab/full, and specific advice for care
- assist with hygiene and feeding needs. Address the issues of education needs (for example, writing, school attendance), limitations to sports activities
- appropriate aids for immobilising, for example, collar and cuff/sling, appropriate for the type for cast
- education/information needs regarding neurovascular observations and advice on elevating upper limb(s) when at rest (see neurovascular assessment benchmark)
- documentation of care provided/information given etc.
- offer coloured cast.

| Score |
| --- |
| Justify score marked |

## Factor 4:
## Lower body cast

Child/young person receives minimal care, teaching and discharge advice.

**Benchmark of best practice**
Child/young person is cared for by the MDT meeting all aspects of their needs.

E D C B A

### Indicators of best practice for factor 4

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- type of cast and implications to care, for example long leg cast, backslab, hip spica
- personal hygiene is attended to by nursing team and taught to the family
- care needs, particularly manual handling and mobility needs, are assessed, documented and taught by appropriate practitioner, for example nursing staff, occupational therapist/ physiotherapist
- pressure area care and regular turning of child in cast, as appropriate for type of cast, for example hip spica cast
- patient taught safe use of mobility aids by appropriate practitioner
- offer coloured cast and crutches.

| Score |
| --- |
| Justify score marked |

## Factor 5:
## Orthotics

**Benchmark of best practice**
Child/young person is cared for by the MDT meeting all aspects of their needs.

E D C B A

### Indicators of best practice for factor 5

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- the different types of orthotic available
- assessment for measurement and fitting
- type of orthotic, for example brace, splint etc, and implications for care
- personal hygiene is attended to by nursing team and taught to the family
- care needs and education, particularly manual handling, application and mobility needs are assessed, documented and taught by appropriate practitioner, for example, orthotist, nursing staff, occupational therapist, physiotherapist
- pressure area care and awareness of pressure points and turning of child, as appropriate for type of orthotic, for example hip abduction brace
- patient taught safe use of mobility aids by appropriate practitioner.

| Score |
| --- |
| Justify score marked |

## Factor 6:
## Discharge planning

Child/young person receives minimal care, teaching and discharge advice.

**Benchmark of best practice**
Child/young person is cared for by MDT and discharge planning is evident.

E D C B A

### Indicators of best practice for factor 6

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- implement care plan at earliest opportunity, for example at pre-admission/admission. Discharge plan is documented
- document and perform the nursing assessment appropriately, for example, neurovascular observations, ooze, tightness, sharp edges, looseness, cracked cast
- address and evaluate the family's needs. Give advice (verbal and written) and education and information about neurovascular observations, mobility and cast care
- provide care for child by appropriately trained and experienced MDT.

| Score |
| --- |
| Justify score marked |

## References


Altizer L (2004) Casting for immobilization, *Orthopaedic Nursing*, 23(2), pp.136-41.

Clarke S and McKay M (2006) An audit of spica cast guidelines for parents and professionals caring for children with developmental dysplasia of the hip, *Journal of Orthopaedic Nursing*, 10(3), pp.128-37.

Hart ES, Albright MB, Rebello GN and Grottkau BE (2006) Developmental dysplasia of the hip: nursing implications and anticipatory guidance for parents, *Orthopaedic Nursing*, 25(2), pp.100-11.

Newman DML (2005) Functional status, personal health, and self-esteem of caregivers of children in a body cast: a pilot study, *Orthopaedic Nursing*, 24(6), pp.416-25.

Prior M and Miles S (1999) Principles of casting, *Journal of Orthopaedic Nursing*, 3(3), pp.162-70.

Sparks L, Ortman MR and Aubuchon P (2004) Care of the child in a body cast, *Journal of Orthopaedic Nursing*, 8(4), pp.231-5.

3 **Benchmark 3**

# Neurovascular assessment

## Neurovascular assessment (NVA) for a child/young person at risk of developing compartment syndrome

| Scorer name | Title | Signed |
|---|---|---|
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## Factor 1:
## Education and competence

Health professionals fail to assess the child/young person's clinical need for NVA and have not received education relating to compartment syndrome or training in the correct use of the NVA tool.

**Benchmark of best practice**
The health professional has received appropriate education and training in the assessment of the child/young person's clinical need for NVA, the completion of the NVA tool and can demonstrate knowledge relating to compartment syndrome.

E D C B A

### Indicators of best practice for factor 1

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- clinical need for individual neurovascular assessment and the appropriate frequency of observations
- 'best placed' health care professional to make the decision for frequency of NVA and the qualifications or level of experience they possess
- any clinical protocols, guidelines or literature that exists to guide this process
- training required to achieve knowledge and competence relating to this factor, the frequency of training updates and how this will be demonstrated.

| Score |
|---|
| Justify score marked |

## Factor 2:
## Recording and documentation

The NVA tool is incorrectly or only partially completed and there is no documentation in the child/young person's nursing notes relating to the completion of, or findings from the NVA tool.

**Benchmark of best practice**
The NVA tool is completed correctly and at the predetermined interval times, with evidence of documentation in the child/young person's nursing records of completion and of the clinical findings.

E D C B A

### Indicators of best practice for factor 2

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- educational needs of the health professional completing the NVA tool
- importance of documenting why a part of the tool is not completed, for example plaster in situ
- legal implications of documenting nursing practice
- who determines interval times for completion of the NVA tool.

| Score |
| --- |
| Justify score marked |

## Factor 3:
## Communication and information

The child/young person and parents are not informed about the necessity of NVA.

**Benchmark of best practice**
The child/young person requiring NVA assessment and their parents have been informed of the necessity and understand the rationale for NVA.

E D C B A

### Indicators of best practice for factor 3

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- what information the child/young person and parents require and their communication needs
- appropriate format for the information.

| Score |
| --- |
| Justify score marked |

## Factor 4:
## Clinical action

The nurse fails to respond appropriately and does not refer or take clinical action when a neurovascular cause for concern is identified.

**Benchmark of best practice**
When a neurovascular concern is identified the nurse takes effective, speedy and appropriate clinical action.

E D C B A

### Indicators of best practice for factor 4

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- optimal clinical action for each indicator of potential compartment syndrome
- whether this differs according to experience and qualification of the health care professional
- appropriate health professional from whom the nurse should seek further advice, if neurovascular compromise is a concern
- action taken if the referral is unsuccessful and the clinical cause of concern remains
- documentation of the event in the medical and nursing notes.

| Score |
| --- |
| Justify score marked |

## Factor 5:
## Discharge planning

There is no evidence of discharge planning relating to the ongoing neurovascular care of the child.

**Benchmark of best practice**
There is evidence of discharge planning and documentation relating to the parents and child/young person being given verbal and written information regarding ongoing neurovascular care.

E D C B A

### Indicators of best practice for factor 5

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- content of the information given and in what format
- to whom it should be given
- where this should be documented.

| Score |
| --- |
| Justify score marked |

## References


Altizer L (2002) Neurovascular assessment, *Orthopaedic Essentials*, 21(4), pp.48-50.

Dykes PC (1993) Minding the five Ps of neurovascular assessment, *American Journal of Nursing*, (6), pp.38-39.

Love C (1998) A discussion and analysis of nurse-led pain assessment for the early detection of compartment syndrome, *Journal of Orthopaedic Nursing*, 2(3), pp.160-167.

McQueen M (2010) Acute compartment syndrome in Bucholz R, Heckman J, Court-Brown C and Tornetta P (eds) Rockwood and Green's Fractures in Adults (7th ed). Lippincott Wiliams & Wilkins: Philadelphia.

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4 **Benchmark 4**

# Traction

## Traction application and maintenance for the clinical management of children with fractures or pre or post-orthopaedic surgery

| Scorer name | Title | Signed |
|---|---|---|
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## Factor 1: Education and the application of traction

Health care professionals have not received education relating to the application of traction.

**Benchmark of best practice**

The health care professional has received appropriate education and training in the application of traction and can demonstrate the skill competently.

E D C B A

### Indicators of best practice for factor 1

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- 'best placed' health care professional to teach and assess staff competency, depending on the qualifications or level of experience they possess
- clinical protocols, guidelines or literature that exist

- training required to achieve the knowledge and competence relating to this factor, the frequency of training updates and how this will be demonstrated
- choice of different types of traction and their uses.

| Score |
| --- |
| Justify score marked |

## Factor 2:
## Education, the management of traction and nursing care

| | |
| --- | --- |
| Maintenance and care of the child/young person in traction is suboptimal. | **Benchmark of best practice** Traction is safely maintained and the equipment is regularly checked. The child/young person receives optimal care while in traction, with evidence of documentation. |

E D C B A

### Indicators of best practice for factor 2

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- principles of safe practice in the maintenance of traction (for example safety checks, maintenance of traction pull, neurovascular status of limb in traction) and the availability of clinical protocols, guidelines or literature
- recognition of deterioration of child/young person's condition due to immobility
- tools that can assist with the assessment of potential complications of immobility and traction (for example neurovascular compromise and pressure sores) and the preventative measures that can be used to reduce the risk (for example see benchmark for neurovascular care)
- recognition of child/young person's schooling and psychological needs whilst in traction
- involvement of play specialist
- 'best placed' health care professional to care for the child/young person in traction
- legal implications of documenting nursing practice and the frequency of documentation for checking traction equipment and of patient clinical reviews.

| Score |
| --- |
| Justify score marked |

# Factor 3: Communication and information

The child/young person and carers are not informed about the necessity for traction.

**Benchmark of best practice**
Information about the necessity for traction has been given to the child/young person and their carers verbally and is supported with a written leaflet, so that they understand the rationale for treatment.


## Indicators of best practice for factor 3

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- what information parents and the child/young person require
- appropriate format of the information.

| Score |
| --- |
| Justify score marked |

## References

Davis P and Barr L (1999) Principles of traction, *Journal of Orthopaedic Nursing*, 3 (4), pp.222-227.

Grippen Bryant G (1998) Modalities for immobilisation, cited in Maher AB, Salmond SW, and Pellino TA *Orthopaedic Nursing* (2nd edition), Philadelphia: WB Saunders.

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Judd J (2008) Application and care of traction. In: Kelsey J and McEwing G eds. *Clinical skills in child health practice*, Churchill Livingstone Elsevier: Edinburgh.

Nichol D (1995) Understanding the principles of traction, *Nursing Standard*, 9 (46), pp.25-28.

5 **Benchmark 5**

# Pin site care

## Care of pin sites for child/young person with an external fixator

| Scorer name | Title | Signed |
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## Factor 1: Screening and assessment

The health professional fails to assess correctly for evidence of potential pin site infection and has not received the relevant education and training.

**Benchmark of best practice**
The health care professional has received appropriate education and training in the assessment for signs of potential pin site infection and can demonstrate this knowledge and competence.

E D C B A

### Indicators of best practice for factor 1

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- signs of potential pin site infection through a consensus of opinion and as described in the literature
- training needs of the nurse in assessing the patient
- any clinical protocols, guidelines or literature that exist to guide this process.

| Score |
|---|
| Justify score marked |

## Factor 2:
## Education

The child/young person and parents are not taught the signs of pin site infection or informed as to what action they should take if a pin infection is suspected.

**Benchmark of best practice**
The child/young person and parents are knowledgeable in determining the signs of potential pin infection and understand rationale for prompt intervention. They have been given an action plan for treatment if pin infection is suspected.

E D C B A

### Indicators of best practice for factor 2

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- the provision of information that parents and children require
- that information is given in an appropriate format.

| Score |
| --- |
| Justify score marked |

## Factor 3:
## Evidence, knowledge and competence

An evidence based guideline is not available for health professionals to guide their practice. Pin site care is performed based on tradition.

**Benchmark of best practice**
An evidence based guideline for best practice in pin site care is available and health professionals can demonstrate knowledge and competence in performing pin site care.

E D C B A

### Indicators of best practice for factor 3

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- literature that supports best practice in pin site care
- availability of a guideline for practice
- frequency for reviewing the guideline.

| Score |
| --- |
| Justify score marked |

## Factor 4: Clinical care

The nurse fails to respond appropriately and does not refer or take clinical action when a pin site infection is evident.

**Benchmark of best practice**
When a pin site infection is evident the nurse takes effective and appropriate clinical action.

E D C B A

### Indicators of best practice for factor 4

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- rationale for quick and effective treatment of actual or potential pin site infection
- optimal clinical action and drug therapy for early and late signs of pin site infection
- documentation of clinical findings and actions taken
- potential for improving practice-based audit findings.

| Score |
| --- |
| Justify score marked |

## Factor 5: Discharge planning

There is no evidence of discharge planning relating to the information given to the child/young person and carers to manage pin sites at home.

**Benchmark of best practice**
There is evidence that documentation was given to the carers and child/young person with verbal and written information regarding pin site care.

E D C B A

### Indicators of best practice for factor 5

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- information that should be given
- format of the information
- documenting that information has been given to the parents and child/young person.

| Score |
| --- |
| Justify score marked |

## References

Davies R, Holt N and Nayagam S (2005) The care of pin sites with external fixation, *Journal of Bone Joint Surgery*, 87-B, pp.716-719.

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6 **Benchmark 6**

# Kirchner (K) wire removal

## Removal of percutaneous K wires from a child/young person in an outpatient setting, following fixation of a fracture

| Scorer name | Title | Signed |
|---|---|---|
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## Factor 1: Competency and knowledge

The procedure is performed by an inexperienced practitioner with no paediatric or orthopaedic knowledge and skills.

**Benchmark of best practice**
Practitioners removing K wires have paediatric and orthopaedic experience, are knowledgeable, skilled and competent in performing the procedure.

E D C B A

### Indicators of best practice for factor 1

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- level of experience, education and training needs for a practitioner to be competent
- assessment of the practitioner and by whom
- guidelines and evidence base for practitioner assessment.

| Score |
|---|
| Justify score marked |

## Factor 2: Preparation of child/young person and carers

The child/young person and their carers do not receive any information relating to the procedure of K wire removal.

**Benchmark of best practice**
The child/young person and their carers referred for wire removal in out-patients, receive full verbal and written information on the procedure to enable informed consent.

E D C B A

### Indicators of best practice for factor 2

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- putting in place evidenced-based guidelines for appropriate selection of children/young people for wire removal in outpatients
- what guidelines exist for appropriate pain relief for the child/young person e.g. simple analgesia and/or Entonox (gas and air)
- advising parents/carers appropriately on pre-procedural pain relief
- the information needs of the child/young person and their family, the format of the information and the timing of when to give the information.

- the involvement of a play specialist to facilitate child/young person's understanding of the procedure and to engage in distraction therapy.

| Score |
| --- |
| Justify score marked |

## Factor 3: Procedure

| The wires are not safely and effectively removed, traumatising the child. | **Benchmark of best practice** A competent practitioner safely removes K wires, the child/young person's care is individualised, evaluated and documented. |
| --- | --- |


### Indicators of best practice for factor 3

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- what evidenced-based guidelines exist for the clinical procedure of removal of K wires in the outpatient setting
- what evidenced-based guidelines are available for the pain management and psychological care of the child/young person
- whether the practitioner has appropriate medical support available if required
- whether a play specialist is available for support and distraction therapy and there is provision of appropriate toys
- performing the procedure in a child-friendly environment
- that the child/young person's notes and X-rays are made available to the practitioner
- the documentation of the procedure.

## References

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Symons S, Persad R and Paterson M (2005) The removal of percutaneous Kirchner wires used in the stabilisation of fractures in children, *Acta Orthopedica Belgica*, 71, pp.88–90.

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| Score |
| --- |
| Justify score marked |

7 Benchmark 7

# Bone or joint infection

## Care and treatment of a child/young person with bone or joint infection

| Scorer name | Title | Signed |
|---|---|---|
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## Factor 1: Admission

The child/young person is admitted to a general children's surgical ward and cared for by staff inexperienced in the management of bone and joint infections.

**Benchmark of best practice**
The child/young person is admitted to a paediatric orthopaedic ward and cared for by staff experienced in managing bone and joint infections.

E D C B A

| Score |
|---|
| Justify score marked |

### Indicators of best practice for factor 1

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- admission criteria for a child/young person with suspected bone/joint infection
- advantages of being admitted to a specialist paediatric orthopaedic ward with appropriately trained and competent nursing and medical staff
- availability of a paediatrician and microbiologist for advice and support
- knowledge and skills of nursing staff to ensure that infection management is explained to the child/young person and family.

## Factor 2:
## Assessment and screening

Nursing and medical staff are not knowledgeable in the assessment and screening of the child/young person with suspected bone/joint infection.

**Benchmark of best practice**
Nursing and medical staff are knowledgeable in the assessment and screening of the child/young person with suspected bone/joint infection.

E D C B A

### Indicators of best practice for factor 2

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- format for assessment and screening
- role of the nurse in ensuring that appropriate blood tests are performed at the appropriate time and the affected area is X-rayed
- role of the nurse in explaining to the child/young person and family the need for further investigations e.g. bone or ultrasound scans, MRI
- role of the nurse in monitoring vital signs for evidence of infection, the frequency and accuracy of screening observations particularly temperature and neurovascular observations.

| Score |
| --- |
| Justify score marked |

## Factor 3:
## Treatment

Nursing staff cannot demonstrate knowledge about the management of bone/joint infection.

**Benchmark of best practice**
Nursing staff have the knowledge and skill to care for the child/young person with bone/joint infection and keep the child/young person and family informed.

E D C B A

### Indicators of best practice for factor 3

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- the availability of a local evidence based protocol for intravenous antibiotic (IVAB) therapy.

Also, consider if nurses are:

- competent to administer IVAB
- aware of the rationale for resting and/or immobilising the affected area
- competent in preparing the child/young person for surgery and in recovery (where appropriate) and explain the process to the family
- able to recognise deterioration in condition and report to appropriate health professional.

| Score |
| --- |
| Justify score marked |

## Factor 4: Discharge planning

| Child/young person is discharged without appropriate planning or information. | **Benchmark of best practice** Child/young person is discharged with effective planning and information. |
|---|---|


### Indicators of best practice for factor 4

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- that the nurse regularly updates child/young person and family on clinical progress.
- that hospital and community multidisciplinary teams involved in discharge planning should include contribution of nursing and play staff where appropriate, to ensure compliance by child/young person with antibiotic regime
- that there is evidence of documentation of discharge planning in notes, to include the written and verbal advice given, and provision of contact numbers
- that local protocols for ongoing antibiotic therapy are followed, drugs to take home are ordered and the regime is explained to the child and family prior to discharge
- that a nurse has arranged and explained the outpatients appointment and rationale for further blood tests to family.

| Score |
|---|
| Justify score marked |

## References

Burden J and Kneale J (2005) Orthopaedic infections cited in Kneale J and Davis P, *Orthopaedics and trauma nursing*, pp.217-219.

Faust SN, Clark J, Pallett A and Clarke NMP (2012) *Managing bone and joint infection in children*. Arch Dis Child doi:10.1136/archdischild-2011-301089

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8 **Benchmark 8**

# Spinal cord injury

## Care of a child/young person following a spinal cord injury

| Scorer name | Title | Signed |
|---|---|---|
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## Factor 1: Assessment of injury

The child/young person sustaining a spinal cord injury is not assessed or referred for assessment.

**Benchmark of best practice**
All children/young people sustaining a potential spinal cord injury are assessed on the day of injury. The level and type of injury is determined and a referral is made to a specialist centre where appropriate.

E D C B A

### Indicators of best practice for factor 1

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- a patient receives a full assessment of the initial injury carried out by a competent practitioner using appropriate tools to identify potential risks
- guidelines for assessment are available and evidence based
- injury management is defined and recorded.
- knowledge and expertise for completing screening and assessment is in place and mechanisms for assessing practitioner competence exists (consider the ASIA score – the assessment of motor and sensory pathways determined by the American Spinal Injury Association). Specialist knowledge is accessed if required
- specialist assessment is accessed if required.

| Score |
|---|
| Justify score marked |

## Factor 2:
## Stabilisation

Child/young person sustaining a spinal cord injury is not immobilised or stabilised before transfer.

**Benchmark of best practice**
Child/young person sustaining a spinal cord injury is appropriately immobilised and/or stabilised before being transferred to a specialist centre for ongoing management.

E D C B A

### Indicators of best practice for factor 2

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- a child/young person is immobilised by a competent practitioner prior to diagnosis in order to prevent further injury
- appropriate imaging has been carried out and a diagnosis made
- appropriate referral is made
- transfer is in an appropriate ambulance and any stabilisation prior to the transfer is carried out by a competent practitioner
- staff are appropriately trained to move patient in a safe way, for example, if unstable using a five-person turn.

| Score |
| --- |
| Justify score marked |

## Factor 3:
## Acute care and rehabilitation programme

Children/young people sustaining a spinal cord injury do not have a planned rehabilitation programme.

**Benchmark of best practice**
Children/young people sustaining a spinal cord injury have an appropriate acute care and a rehabilitation programme that is planned through a multidisciplinary approach.

E D C B A

### Indicators of best practice for factor 3

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- acute care and rehabilitation programmes are individualised and devised by appropriate MDT professionals
- rehabilitation programmes are reviewed and updated on a regular basis
- a programme has an allocated amount of time for goal planning meetings with the patient and their family/carer and the MDT
- all members of the MDT communicate and ensure that spinal cord injury care is a team approach
- patients and their families are able to access appropriate spinal cord injury education to empower them to take control of their own care.

| Score |
| --- |
| Justify score marked |

## Factor 4:
## Psychological impact of a spinal cord injury

No consideration is given to the psychological impact of a spinal cord injury.

**Benchmark of best practice**
The psychological impact of a spinal cord injury to the child or young person and their family is adequately assessed and supported by an appropriate professional.

E D C B A

### Indicators of best practice for factor 4

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider that:

- regular MDT meetings are held to discuss any concerns between the family and/or team
- MDT, patients and their families have regular access to child and adolescent psychiatric and psychological services
- regular and ongoing assessment is carried out by the MDT
- members of the MDT have the knowledge and understanding of the psychological impact of a spinal cord injury
- specialist knowledge is accessed if required.

| Score |
| --- |
| Justify score marked |

## Factor 5:
## Discharge planning

There is no evidence of discharge planning.

**Benchmark of best practice**
Discharge planning for children and young people with spinal cord injuries starts on admission, is thorough and provides a safe and timely discharge that considers their individual needs.

E D C B A

### Indicators of best practice for factor 5

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider that:

- discharge planning starts on admission with contribution from the whole MDT
- assessment of the child and family's living arrangements is undertaken early in the admission
- appropriate outside services are accessed early in the admission
- discharge planning takes into consideration the worst possible case scenario (no improvement of condition following rehabilitation)
- discharge planning takes into equal consideration the psychological and physical aspects of a spinal cord injury, with a MDT approach to resolving both prior to discharge or arranging follow-up support
- patients are not discharged until adequate services are in place and safety can be assured.

| Score |
| --- |
| Justify score marked |

## References

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Thomas D (1996) Assessing children it's different, *RN*, April, pp.38-44.

9 **Benchmark 9**

# Spinal surgery

## Care of a child/young person undergoing elective spinal surgery

| Scorer name | Title | Signed |
|---|---|---|
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## Factor 1: Pre-operative assessment

| Environment is unsafe. | **Benchmark of best practice** Each child or young person has the opportunity to attend a pre-operative assessment appointment for elective spinal surgery. |
|---|---|

E D C B A

### Indicators of best practice for factor 1

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- that the pre-operative assessment bench mark is referred to
- that you ensure the patient and the family have full understanding of the procedure, recovery pathway and post-surgery management
- the involvement of MDT
- the reduction of anxiety by sharing of information
- the requirement to measure for a post-operative brace or splint
- the start of individualised care pathway.

| Score |
|---|
| Justify score marked |

## Factor 2: Nursing care plan

| There is no evidence of a care plan or care has not been provided according to the plan. | **Benchmark of best practice** The child/young person has a plan of care appropriate to age and need, reflecting the specific care following spinal surgery. |
|---|---|

E D C B A

### Indicators of best practice for factor 2

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- the child/young person has undergone pre-operative screening and assessment
- staff have appropriate knowledge to care of the patient following spinal surgery, for example log rolling, pressure area care, positioning, bowel management, nutrition requirements, pain management, mobilising
- that the neurovascular assessment and cast care benchmarks are referred to
- involvement of the MDT
- involvement of patients and parents/carers.

| Score |
|---|
| Justify score marked |

## Factor 3:
## Pain management

There is no evidence of appropriate pain management.

**Benchmark of best practice**
The child/young person has their pain assessed regularly using appropriate tools and has sufficient analgesia prescribed.

E D C B A

### Indicators of best practice for factor 3

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider:

- pain history
- whether assessment tools used are appropriate for age and competence of patients
- if pain management treatments are available and used
- the knowledge and expertise of staff and their ongoing development
- access to specialist pain service.

| Score |
| --- |
| Justify score marked |

## Factor 4:
## Post-surgical mobility

The child/young person is not mobilised in a safe or controlled manner with appropriate assistance.

**Benchmark of best practice**
The child/young person is mobilised post-surgery with guidance from the physiotherapist and in a safe and controlled manner.

E D C B A

### Indicators of best practice for factor 4

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider that:

- a physiotherapist should work with the patient on mobility practice for the first time following surgery as per surgeon's written instructions
- a patient should become mobile as soon as possible post-procedure
- if a brace is needed it should be cast and available as soon as possible
- sitting tolerance should be increased gradually
- the patient needs adequate rest between episodes of movement.

| Score |
| --- |
| Justify score marked |

## References

Harvey CV (2005) Spinal surgery patient care, *Orthopaedic Nursing*, 24(6), pp.426-442.

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10 **Benchmark 10**

# Children in outpatient settings

## Care of a child/young in an outpatient setting

| Scorer name | Title | Signed |
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## Factor 1: Environment

The outpatient setting is not environmentally friendly to the needs of the child and young person

**Benchmark of best practice**
The outpatient setting has been designed around the needs of children and the young person, with suitable décor, space, play and facilities.

E D C B A

### Indicators of best practice for factor 1

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- the overall environment, including access for wheelchairs and buggies, separate waiting area with no direct general public approaches and appropriate décor
- the provision of adequate space for the attendance of siblings, play and general extras such as buggies, prams and wheelchairs
- facilities accessible for baby changing and feeding.

| Score |
|---|
| Justify score marked |

## Factor 2: Play

The outpatient department does not have appropriate toys or entertainment systems e.g. TV for the child/young person and a play specialist is not available to support them.

**Benchmark of best practice**
Child/young person has access to an appropriate waiting area with a play specialist and the availability of toys and entertainment systems for the age range seen. Play is used therapeutically to support the child and young person, throughout their visit to the outpatient department.

E D C B A

### Indicators of best practice for factor 2

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider the following:

- suitable toys/play/entertainment equipment
- provision of a designated play area
- the employment of a play specialist to facilitate child/young person's therapeutic play.

| Score |
|---|
| Justify score marked |

## Factor 3:
## Staff training

| | |
|---|---|
| The medical and nursing staff in the outpatient department have not received training in the care of the child/young person | **Benchmark of best practice**<br>The medical and nursing staff in the outpatients department have received training in the care of the child/young person and a children's qualified nurse is always in attendance. |

E D C B A

### Indicators of best practice for factor 3

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider:

- a children's trained nurse in each children's orthopaedic clinic
- staff understanding on the rights of the child and on consent.
- annual level 1 Child Protection training for all staff
- annual resuscitation training appropriate to the job level of the member of staff.
- staff communication with children on a level, and by means, best suited to their stage of development and their degree of understanding.
- the awareness of the needs of children and young people from other cultures
- the knowledge of how to obtain an interpreter to aid communication when required.

| Score |
|---|
| Justify score marked |

## Factor 4:
## Management of the clinic

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|---|---|
| The staff are not competent to effectively run the clinic and do not have a clear understanding of the child/young person's individual or orthopaedic needs during their outpatient visit. | **Benchmark of best practice**<br>The staff are competent in the smooth management of the clinic and have a good understanding of the child/young person's individual and orthopaedic needs during their outpatient appointment |

E D C B A

### Indicators of best practice for factor 4

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider:

- the level of orthopaedic knowledge required by the staff running the clinic
- the benefits of staff training in simple information technology to be able to retrieve patients results, for example bloods, radiology reports
- the benefits of 'prepping' patients' notes ready for consultation by the medical practitioner.
- information giving to the parents/carers and the child/young person to keep them informed throughout their time in the outpatient department.

| Score |
|---|
| Justify score marked |

## Factor 5: Patient appointments

The child/young person is seen alongside adult patients in the same general orthopaedic clinic.

**Benchmark of best practice**
The child/young person is seen in designated separate children's orthopaedic outpatient clinics.

E D C B A

### Indicators of best practice for factor 5

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider:

- the recommendations in the National Service Framework for Children
- barriers to the implementation of these recommendations.
- benefits to the child/young person and family being seen in an appropriate clinic setting.
- the privacy and dignity of the child and young person (Essence of Care).

| Score |
| --- |
| Justify score marked |

## Factor 6: Treatments

Nursing staff are unknowledgeable about the carrying out of simple orthopaedic treatments performed in the outpatient setting

**Benchmark of best practice**
Nursing staff have the knowledge and skill to perform appropriate orthopaedic treatments in the care of the child/young person in the outpatient setting

E D C B A

### Indicators of best practice for factor 6

To stimulate discussion about best practice in your comparison group, you may find it helpful to consider:

- the types of treatments that the nurse may be asked to perform, for example application of slings, splints, buddy strapping and wound care dressings
- the nurse's competence in the performance of orthopaedic treatments and the level of nurse training required
- nurses have good communication skills at the appropriate level for the child/ young person understanding to prepare and explain the rationale for treatment
- the use of pain scoring tools to assess child/young person's pain level
- provision of suitable pain relief for procedures, for example Entonox
- training of qualified staff to administer pain relief, for example Entonox.

| Score |
| --- |
| Justify score marked |

## References

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# Notes

# Notes

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