

Appendix 1

Guide to Data Collection

Confidentiality

All data will be entered into a site-specific Excel spreadsheet, which will be password protected. Data will be entered by a single extractor who is not blinded to the study hypothesis. There will be no interrater agreement testing.

For cross-referencing and future data queries, the hospital number for each patient included in the audit should be saved in the appropriate cell. On completion of data collection, the investigator should save a copy of the spreadsheet and delete the column containing the hospital numbers, prior to transferring the spreadsheet to the study team.

Inclusion/Exclusion Criteria

1. Chronological age from birth to 17 years (up to their 18th birthday).
2. Presenting to ED during the 7 day audit period (dates will be confirmed to sites)
3. Presenting with minor trauma, to include:
 - a) fractures or dislocations of the extremities
 - b) sprains/strains
 - c) burns and scalds
 - d) lacerations, contusions/abrasions
 - e) other soft tissue injuries

The following injury types should not be included:

1. Major trauma patients (injury severity score >15)

Unknown and Not-applicable Data Points

Many cells contain dropdown lists to select from. Where it may be relevant, an “unknown” option is included

Other cells require free-text entry. For any data point that is unknown (or not documented) please type “NK”.

Some fields can be left empty. For example, if you answer that patient did not receive any pre-hospital analgesia, the subsequent questions regarding name/dose/route, etc of pre-hospital analgesia should be left empty.

Similarly, the spreadsheet offers the ability to enter multiple pain scores, multiple analgesic agents and multiple injuries for any one patient. Most patients will only require data entry for a small number of these fields, and the excess fields can be left blank.

Missed Patients

The spreadsheet contains a second workbook (tab) to list any eligible patients that were missed from the audit, e.g. due to missing notes. Please log all missed patients in this table. This worksheet should not be transferred to the study team, but a summary of the number of missed patients will be requested after the data collection period has finished.

Date & Time Formats

Please enter all dates as **DD/MM/YYYY**, e.g. 16/12/2016.

Please enter all times in 24-hr format at **HH:MM**, e.g. 18:04.

Section 1 – Demographics

1) Date of ED registration

2) Time of ED registration

 (24 hour clock)

3) Age (at last birthday)

 Years

If younger than 1 year, enter "0" and, in next column enter age in months.

4) Gender

- Male
- Female

5) Ethnicity

- White British
- White Irish
- Other White
- White/Black Caribbean
- White/Black African
- White/Asian
- Other Mixed
- Indian
- Pakistani
- Bangladeshi
- Black Caribbean
- Black African
- Other Black
- Chinese
- Asian
- Other: _____ (please specify)
- Unknown/not documented

6) Accompanying adult(s)

- Parent(s)
- Legal guardian(s)
- Other relative(s)
- Teacher
- Carer
- Unaccompanied
- Other: _____ (please specify)
- Unknown/not documented

Enter "X" in the appropriate cell(s)

7) Weight

kg *2 decimal places*

If unknown/not documented, please type "UK"

8) Documented co-morbidities

- Cardiac disease
- Liver disease
- Renal disease
- Developmental delay (other than mild impairments)
- None of the above

Enter "X" in the appropriate cell(s)

9) Drug allergies

- Yes: Please specify: _____
- No
- Unknown/not documented

Section 2 – Pre-Hospital Data

1) Date of injury

DD/MM/YYYY

2) Approximate time of injury, prior to ED attendance

- < 1 hour
- 1 – 2 hours
- 2 – 4 hours
- 4 – 6 hours
- 6 – 12 hours
- 12 – 24 hours
- 24 – 48 hours
- > 48 hours
- Unknown/not documented

3) Location of accident/injury

- Home
- Other house
- School/nursery
- Road/street
- Park/playground/soft play area
- Sport/leisure activity
- Other: _____ (please specify)
- Unknown/not documented

4) Mechanism of injury

Brief free text summary (e.g. fall from standing, fall from 3ft height, rugby tackle, pedestrian versus car, etc.)

5) Mode of arrival to ED

- Ambulance
- Self-presentation
- Transfer from other ED
- Unknown/not documented

If self-presentation/unknown, then section 3 can be left blank

Section 3 – Pre-Hospital Pain Scores

1) **Were pain scores recorded by the ambulance/pre-hospital crew or a previous ED?**

- Yes
- No
- Unknown/no documentation

2) **List all pain scores performed by ambulance/pre-hospital crew or at a previous ED**

	Pain Score	Time
Initial Pre-hospital Pain Score	_____	HH : MM
Repeat Pain Score 1	_____	HH : MM
Repeat Pain Score 2	_____	HH : MM

Only enter data for the pain scores that were measured, leave additional fields blank

Section 4 – Pre-Hospital Analgesia

1) Has any analgesia been given since the injury, prior to arrival at the ED?

- Yes
 No
 Unknown/not documented

2) If yes, enter data for all analgesia given (space for up to 4 medications)

The “route” must be selected first, before the list of relevant medications will appear in the “name” cell.

	Route	Name	Dose	Date	Time	Administered by
Medication 1	Dropdown list	Dropdown list	Free-text	DD/MM/YYYY	HH : MM	Dropdown list

Dropdown lists for analgesic agents administered		
Route	Name	Dose (Preferred units)
Oral	Paracetamol	mg
Oral	Ibuprofen	mg
Oral	Diclofenac	mg
Oral	Morphine sulphate	mg
Oral	Codeine	mg
Oral	Tramadol	mg
Oral	Other: _____ (please specify)	blank - free text
Inhalational	Entonox	N/A
Inhalational	Nitrous oxide	___% mix ___duration (mins)
Inhalational	Other: _____ (please specify)	blank - free text
Intranasal	Diamorphine	mg
Intranasal	Fentanyl	micrograms
Intranasal	Other: _____ (please specify)	blank - free text
Intravenous	Fentanyl	micrograms
Intravenous	Morphine sulphate	mg
Intravenous	Paracetamol	mg
Intravenous	Ketamine	mg
Intravenous	Other: _____ (please specify)	blank - free text
Topical	LAT gel	ml
Topical	Other: _____ (please specify)	blank - free text

Unknown/not documented	N/A	N/A
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Dropdown list- Administered by
Self
Parent/guardian
Other family member
Ambulance crew
GP/walk-in-centre
Previous ED
Other: _____ (please specify)
Unknown/not documented

Section 5 – ED Pain Assessment

1) Time of initial nurse assessment/triage

2) Location of initial assessment

- Triage room/bay
- Waiting area
- Resus bay
- Non-resus clinical cubicle/area
- Ambulance trolley
- Other: _____ (please specify)
- Unknown

3) Were pain scores recorded in ED?

- Yes
- No
- Unknown/no documentation *If no, then go to section 6*

4) List all pain scores performed in ED

	Pain Score	Time
Initial ED Pain Score	_____	HH : MM
Repeat ED Pain Score 1	_____	HH : MM
Repeat ED Pain Score 2	_____	HH : MM
Repeat ED Pain Score 3	_____	HH : MM
Repeat ED Pain Score 4	_____	HH : MM
Repeat ED Pain Score 5	_____	HH : MM
Repeat ED Pain Score 6	_____	HH : MM

Only enter data for the pain scores that were measured, leave additional fields blank

Section 6 – ED Analgesia

1) Was analgesia offered in the ED?

- Yes
- No – adequate pre-hospital analgesia
- No – forgot
- No – allergy to available options
- No – reason not documented
- Unknown

2) Was analgesia accepted by the patient?

- Yes
- No – spat out
- No – verbally refused
- No – reason not documented

3) Any recorded analgesia-associated adverse events?

- Yes _____ (please specify)
- No

4) If analgesia given in ED, enter data for all drugs administered (space for up to 6 medications)

The “route” must be selected first, before the list of relevant medications will appear in the “name” cell.

	Route	Name	Dose	Date	Time	Given as PGD?
Drug 1	Dropdown list	Dropdown list	Free-text	DD/MM/YYYY	HH : MM	Enter “X” if so

See table in Section 4 for available route/name options

Section 7 – Injury Data

1) Classification of Injury

Enter data for up to 4 injuries (listing the primary injury first).

The “injury type” must be selected first, before the relevant list of “location/severity” options will appear.

	Injury Type	Location/Severity
Injury 1 (Primary Injury)	Dropdown list – Level 1	Dropdown list – Level 2

Injury Type	Location/Severity
Fracture – buckle	Dropdown list - Bones
Fracture – non-buckle	Dropdown list - Bones
Fracture – clinical suspicion (not evident radiographically)	Dropdown list - Bones
Dislocation	Dropdown list - Joints
Sprain	Dropdown list - Joints
Burn	Dropdown list – TBSA %
Scald	Dropdown list – TBSA %
Laceration	Dropdown list – surface anatomy
Contusion/abrasion	Dropdown list – surface anatomy
Other: _____ (please specify)	N/A

Location/Severity – Bones	Location/Severity – Joints
Clavicle	Sternoclavicular
Humerus	Acromioclavicular
Radius	Shoulder (glenohumeral)
Ulna	Elbow
Scaphoid/Other carpal	Wrist
Metacarpal	Metacarpophalangeal (MCP)
Phalanx (finger)	Interphalangeal (thumb/finger)
Pelvis	Hip
Femur	Knee
Tibia	Ankle
Fibula	Metatarsophalangeal (MTP)
Calcaneus	Interphalangeal (toe)
Navicular/other tarsal bone	Other: _____ (please specify)
Metatarsal	
Phalanx (toe)	
Other: _____ (please specify)	

Location/Severity – TBSA %	Location/Severity – Surface anatomy
< 1%	Head/scalp
1 to ≤ 3%	Eye/eyebrow
3 to ≤ 5%	Nose
5 to ≤ 10%	Mouth/dental
10 to ≤ 15%	Face/chin
> 15%	Shoulder
	Upper arm
	Elbow
	Forearm
	Wrist
	Hand
	Thumb/Finger
	Buttock
	Hip
	Thigh
	Knee
	Lower leg
	Ankle
	Foot
	Toe
	Other: _____ (please specify)

Section 8 – Treatment Data

1) Interventions or treatments during ED attendance

- Cleaning of wound/burn
- Dressing of wound/burn
- Wound closure
- Splint application
- Plaster application
- Manipulation of fracture/dislocation
- Other: _____ (please specify)
- No treatment

Enter "X" in the appropriate cell(s)

2) Was procedural sedation performed (during initial ED attendance)?

- Yes
- No

3) If yes, time of start of procedural sedation

HH:MM

4) Regional nerve blocks performed?

- Femoral nerve block
- Fascia iliaca block
- Digital (ring) block
- Other block
- None

Section 9 – Disposition

NB. For the purposes of this question, please consider time spent in an ED Observation Ward (or equivalent) to be part of the overall ED journey, and report the discharge time from this unit.

1) Date of ED discharge

2) Time of ED discharge

3) Discharge destination

- Home
- Inpatient admission

4) Planned follow-up

- ED review
- Fracture/orthopaedic clinic
- Hand trauma/plastics clinic
- Burns/plastics clinic
- Returning for definitive surgery
- Other outpatient clinic at your own hospital
- Physiotherapy
- Referred to other hospital
- GP/practice nurse appointment advised
- Other: _____ (please specify)
- No follow-up

Enter "X" in the appropriate cell(s)

5) Discharge medications supplied/prescribed from ED

- Paracetamol
- Ibuprofen
- Oral morphine sulphate solution
- Other (analgesic): _____ (please specify)
- Other (non-analgesic): _____ (please specify)

- No discharge medications provided

Enter "X" in the appropriate cell(s)

6) During this ED attendance, were any of the following applicable?

- Critical or limb-threatening condition requiring immediate management
 Administration of oxygen to patient (for any reason)
 Altered level of consciousness (due to any cause)
 None of the above

Enter "X" in the appropriate cell(s)

Section 10 – Additional Notes

1) Additional notes for this patient (*optional*)

Free text