Scottish Trauma Audit Group (STAG)
Re-auditing Trauma Management in Scotland

AUDIT INSTRUCTIONS

Document Control

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V4.2	22.05.14	Updated for Appendix 5: SICSAG Unit Codes	SP
V4.3	15.09.14	Updated for Ps12 and removed TRISS	SP
V4.4	05.11.14	Updated for website Added Appendix 6 LAC Guidance	LR LH
V4.5	27.11.14	Updated 'Getting Started' to include setting up of folders.	LH
V4.6	16-02-15	Added "unknown" to advice about MOI page 17	LH
	19-02-15	Added two new "Grades" of Dr – Physicians Assistant and Nurse Consultant.	LH
V4.7	14-05-15	Updated section 3.7 Cannulation (page 18)	LH
V4.8	05-06-15	Updated to include new data items for paediatrics	AK
V5.0	01-03-16	Updated to incorporate recent clarifications from Communication meetings and group discussions.	VJ/LR/AK/LH
V5.1	24-05-16 12-07-16	Updated section 3.4 Paramedic following email discussion with team. Added guidance on date each month to send proforma to central	LH/AK/LR/VJ

		office.	

Contents

This document is intended to act as a written guide for clarity of the audit process. There are some areas in which the written word may appear more complicated than the process is in practice but a document of this type is required for reference. If there are any doubts about interpretation or further clarity is required then this should be discussed with the Regional Coordinator or the Quality Assurance Manager.

Aim

The aim of the 'STAG Re-auditing Trauma Management in Scotland Audit' is to 'Improve the emergency management of seriously injured patients in Scotland'.

Objectives

- To measure current practice against accepted evidenced based standards of care.

- To revisit the urban/rural outcome debate in light of the recommendations by the National Audit Office for regionalisation of trauma services in England and Wales.

- To lead a Quality Improvement Program for trauma by providing high quality national trauma data.

Section 1: Introducing a New Audit

Task	Title	Who	Task Description
1.0	**OBJECTIVES**	ALL	To ensure that each new audit has comprehensively collected, robust, standardised data.
1.1	**A NEW AUDIT**	LC	When starting any new audit it is vital that the collector of the information alerts all relevant departments and personnel prior to the start of the audit in order to gain their support and co-operation. Showing an interest in different departments, finding out how they work, asking questions and making yourself known are the first steps involved in building up a network of contacts which will make the collection of accurate data 'as easy as possible'.
2.0	**GETTING STARTED**	LC	Speak to the head of department in first instance e.g. Clinical Nurse Manager, Clinical Director, and Superintendent Radiographer. Alert them to the information you require. Once you have their co-operation the rest should be easy.
2.1	List of all departments	LC	All those involved in the audit, e.g. ED, Theatre, ITU, Orthopaedic/Surgical Wards, Laboratories, X-ray.
2.2	List of staff groups involved	LC	All who are involved in the patient pathway, e.g., Nursing & Medical Staff, Specialist Nurses, Theatre Staff, Receptionists /Clerks, Secretaries, Medical Records staff.
2.3	List other services involved	LC	Any other individuals or organisations who may have an interest in the audit e.g. Scottish Ambulance Service.
2.4	List other departments	LC	Any other which may be a useful resource, e.g. Local Audit Office, Clinical Governance, Clinical Effectiveness, I.T.
2.5	Set up electronic folders on site.	LC	Ask your IT department to set up 3 folders on site pc: · Personal folder · STAG folder – for templates, monthly summary/proforma submission, cross index files, giving access only to Local Co-ordinator, Lead Clinician and another nominated member of staff, eg Secretary or Lead Nurse, as a backup. · Raw Data folder- ensure raw data spreadsheet h**as second level password protection,** giving access only to Local Co-ordinator, Lead Clinician and another nominated member of staff. **Both raw data and STAG folders should be on server so they are backed up regularly.**

3.0	**CHECKLIST**	LC	The following are additional positive steps to ensure a successful audit.
3.1	Draft a letter OR email	LC	This should introduce yourself and the audit. Give a contact telephone number / email address for anyone requiring further information. (Please ensure you first set up an nhs.net email address, if you do not already have one). Send this to departments / personnel with whom you will have limited contact.
3.2	Formulate an introduction to the audit	RC LC	Make it clear, concise in notes or booklet form for display in the relevant areas.
3.3	Make a poster	RC LC	This should include the proposed start date of the audit and other key bits of information. Display in relevant areas.
3.4	Locate a staff list	LC	Find out the names, job titles and grades of nursing and medical staff in ED and medical staff in other specialties where a record of grade is required on the proforma eg anaesthetists.
3.5	Arrange to see staff	LC	This can be individually or in small groups, over a given period of time (i.e. 2 weeks). This will allow you to introduce yourself and the audit and to outline what you expect from them.
3.6	Identify staff not seen	LC RC	Send out individual correspondence to the remaining staff that you have been unable to see, introducing yourself, directing them to the booklet/poster on display in the work area, and giving your contact details.
3.7	Visit all departments	LC	Visit all who will be instrumental in you gaining information for the audit. Speak to the staff to find out the easiest way of collecting the required information. (Be aware of how effective this will be during periods of sick / annual leave, and try to build in a backup plan to cover this).
3.8	Familiarise yourself with documentation	LC	Ensure you are familiar with all documentation that is used in the areas you will be visiting. Use resources open to you to extract information.
3.9	Gain access to information	LC	If you are unable to gain access to a piece of information, ask around to see if anyone knows where the information may be found. Contact the appropriate departments to seek advice re: passwords etc. (Computer access for information on x-rays, blood results, patient admissions etc).
4.0	**AUDIT START APPROACHING**		
4.1	Prepare for start of audit	LC	As the date for commencement of the audit approaches, put up a range of countdown posters in relevant areas. Make posters eye catching, simple and concise.

5.0	**AUDIT PROGRESS**		
5.1	Inform staff	LC	As the audit progresses, keep changing the posters to: · Alert staff to how well they are doing · Highlight any deficiencies that have arisen in the data available for collection If there are excessive problems, arrange to see the manager of the area concerned.
5.2	Feedback	LC	More formal feedback in person should be given regularly (i.e. 3 months) in appropriate departments to illustrate what the data is showing. Feedback also provides an opportunity for staff to ask questions as well as see the current practice.
5.3	Distribute information	ALL	To the Heads of Departments either as formal feedback in person, individually or in booklet form. Provide them with the evidence, which will allow them to make any necessary changes in practice.

Section 2: Gathering Data

Task	Title	Who	Task Description
1.0	**OBJECTIVES**	ALL	To ensure that each new audit has comprehensively collected, robust, standardised data.
2.0	**PREPARATION**		
2.1	Inform clinical staff of plans	CC LC	Prior to the start of the trauma audit in 2011, the Caldicott Guardians of all participating centres were contacted by the Clinical Coordinator / Chairman outlining the audit and advising of date of commencement. A copy of the communication was also sent to each Chief Executive, Clinical Governance Lead, STAG Clinical Lead and STAG Local Audit Coordinator. Each LC should discuss plans with their clinical leads and discuss methods of obtaining required data.
2.2	Make necessary documentation available	CC	AIS Dictionary (2005 version with 2008 updates entered), Proforma (main set plus additional injury pad), Refer to Documents in Appendix 1 and reference documents in Appendices 2 – 5. **All documents should be stored in electronic form, on a password protected hard drive to ensure patient confidentiality and compliance with Data Protection Act. Any documents which are unable to be stored electronically should be kept in a locked drawer/cupboard with single key access.**
3.0	**PROCESS**		
3.1	Daily tracking	LC	Check Emergency Department (ED) computer system for all daily attendances. Enter daily attendance numbers to ED onto tracking sheet. *Refer to STAG Trauma Tracking* Sheet or use local system generated tracking sheet e.g. Crystal/ TRAKcare Report. Apply the inclusion/exclusion criteria to **all** ED attendees. **Note:** Apply the inclusion criteria then the exclusion criteria. **All patients who have presented following trauma and may possibly meet the inclusion criteria and who are admitted to hospital should be entered onto the tracking sheet and tracked to determine proforma completion criteria.**
3.2	Gather and Record Data	LC	Follow up case notes, in ED / wards for all patients on tracking sheet until all inclusion/exclusion criteria have been established, this could be several days following attendance. Record the reason for exclusion on the tracking sheet. Commence a *STAG Trauma Proforma* for patients who meet the inclusion criteria and record this on the tracking sheet.

				[Refer to Proforma Completion notes](#)
				Use **all** resources available e.g. administration staff, medical and nursing staff etc. Identify destination if patient is transferred to another centre for specialist treatment, and note on tracking sheet.
				Follow up patients for 30 days or until death/discharge from acute care eg rehab or long term care.
				E.g. patient admitted on 18th of Oct, if still a continuous in patient on 17th Nov, would have a discharge date from the audit of 17th Nov.
				Complete electronic Monthly Summary Sheet for daily attendances and number of patients meeting the entry requirement for the audit.
				For discharges :
				Check each proforma to ensure all data fields are complete and that data makes sense. Pay particular attention to flow of dates and times.
				For transfers:
				[Refer to Transfer protocol](#)
				For deaths:
				Add to electronic STAG Trauma Cross Index
				Contact Pathology to ascertain whether post mortem is being performed.
				Advise RC of any patients who are to have a post mortem.
				Post Mortem Reports - **Glasgow only**
				· Paper copies of PM reports can be retained for a period of 3 years only.
				· Paper copies of the PM must have all identifiable information blanked out, and the relevant STAG form number written on the copy.
				· Paper copies of PM reports must be filed separately to STAG proforma and locked in a secure cupboard.
				· All copies must be destroyed after a period of 3 years, by incineration.
				· For the purpose of QA, we may require access to any relevant PM reports.
3.3	Advise of Any Problems	LC		Advise clinical leads and RCs of any issues experienced with data collection.
3.4	Anonymise Data	LC		Complete electronic *STAG Trauma Cross index* with the details of all completed proforma.
				Remove identifying name slips from proforma and destroy as per local confidentiality guidelines to ensure confidentiality

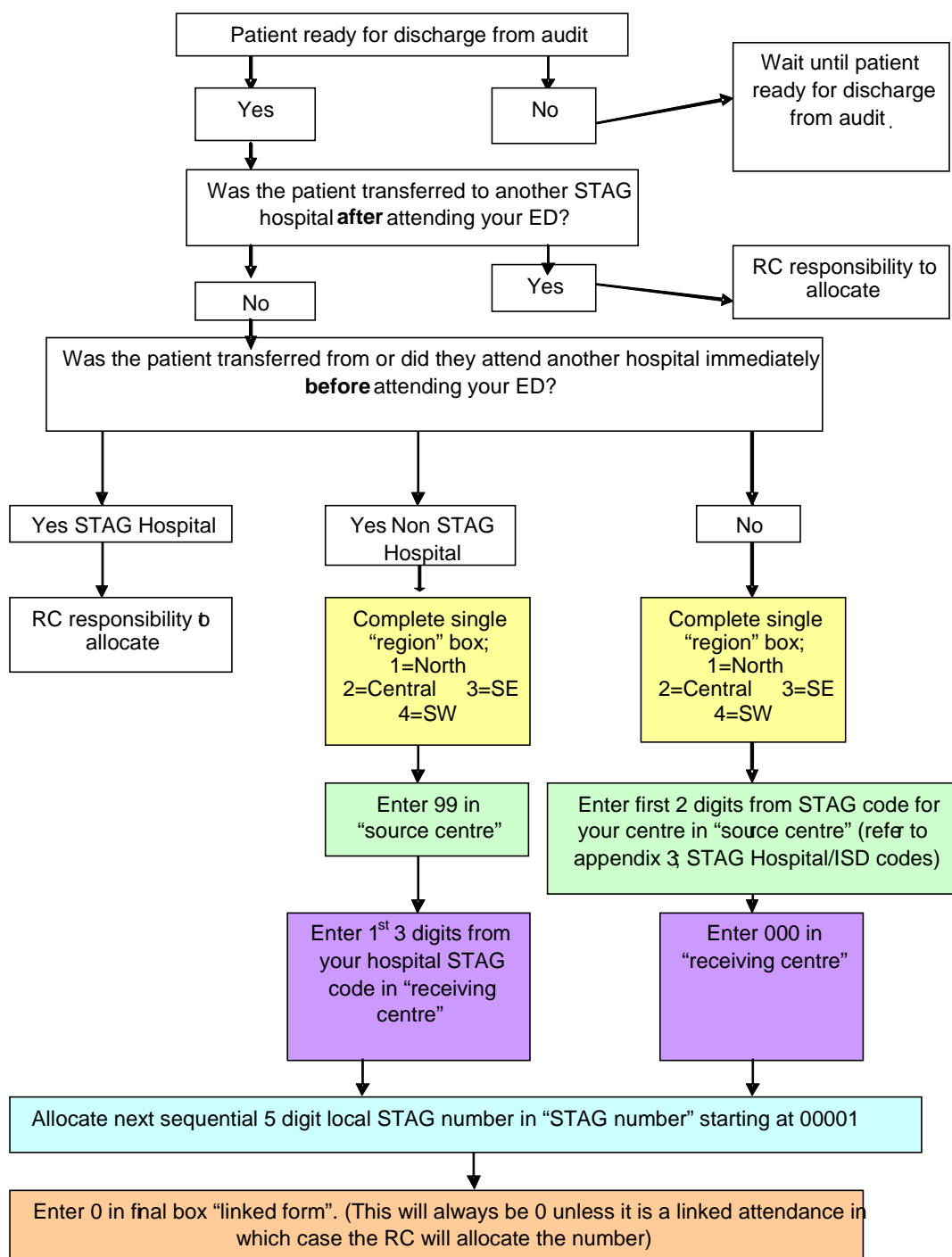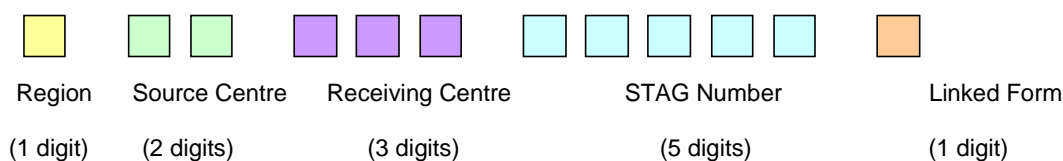|			
			and compliance with Data Protection Act.
3.5	Submit Data	LC	Submit data Once a month and no later than the 10th of the following month. a) Advise central office of number of forms being sent using the *STAG Trauma Proforma Submission*. b) Send proforma in post to Central Office. c) When saving the completed *STAG Trauma Proforma Submission* form for each month include the year, month and ISD Hospital Code in the file name. Refer to the batch by the month data (proforma) are <u>completed</u>, e.g. forms submitted for 10th Nov will be October batch (even though batch may contain forms which were commenced in months other than October). e.g. 2015-10 L302H STAG Trauma Proforma Submission.xls Record date proforma sent on Cross Index. To comply with data protection, forms should be sent in a double envelope: d) Address the inner envelope with the correct recipient name, address, postcode and also a return name and address, and mark envelope **CONFIDENTIAL.** Please indicate your hospital code and how many proformas are being sent for each month on the front of the envelope. e) Place the envelope inside a second envelope addressing this envelope with the same correct recipient name, address, postcode and a return name and address. Seal the envelope. The outer envelope must not display the sensitivity marking on it. We recommend that you reinforce the outer edges of the envelope with Sellotape to avoid any damage to the forms during transit. f) Send the parcel using either an approved courier or Royal Mail recorded/tracked delivery services. Both these services should deliver the parcel the following day (24 hours at the latest) to the intended recipient and get a signature once the item has been delivered. Both these services will allow you to track the item during its transportation. g) If using the hospital internal mail system, please allow extra time to ensure your profomas arrive before the deadline Submit STAG Proforma Submission form to Central Office QAM via ISD mailbox (NSS.isdstag@nhs.net). ***Refer to STAG Trauma Proforma Submission***
3.6	Record receipt of data	Central Office	Record receipt of data and save in appropriate folder.

3.7	Submit Monthly Summary	LC	Once a month and no later than the 25th of the following month: a) Advise central office of daily attendance and number of patients who met the entry requirements for the audit using the *STAG Trauma Monthly Summary* and submit to the central office QAM When saving the completed *STAG Trauma Monthly Summary* form for each month include the year, month and ISD Hospital Code in the file name, e.g.: 2015-10 L302H STAG Trauma Monthly Summary.xls b) Submit Monthly Summary to QAM via ISD mailbox NSS.isdstag@nhs.net
3.8	To remove a patient from audit	LC	If it becomes necessary to exclude a patient once you have added them to your electronic STAG Trauma Cross Index, please remember to indicate that the patient has been removed from the audit on your cross index, update your tracking sheet and amend the electronic Monthly Summary Sheet numbers for the day of attendance. If the exclusion is made after submission of the proforma, you must **also** complete the final column of the annual summary tab to indicate the form has been removed and manually adjust the total (as shown in the green box) eg

Month	ED Attendance	No. of patients included	No. of patients to be confirmed	No. of forms removed
January	4722	27	0	STAG 91857
February	4347	11	0	STAG 1064
March	4715	22	0	
April	4662	16	0	
May	4208	19	0	
June	0	0	0	
July	0	0	0	
August	0	0	0	
September	0	0	0	
October	0	0	0	
November	0	0	0	
December	0	0	0	
Total	**22654**	**95**	**0**	2

Section 3: Inclusion/exclusion criteria

Please follow link: Inclusion/exclusion criteria document

Section 4: Allocating a STAG number

Region	Source Centre	Receiving Centre	STAG Number	Linked Form
(1 digit)	(2 digits)	(3 digits)	(5 digits)	(1 digit)

```
                    ┌──────────────────────────────┐
                    │ Patient ready for discharge   │
                    │          from audit           │
                    └──────────────────────────────┘
                         │                │                    ┌──────────────────┐
                    ┌─────────┐      ┌─────────┐               │ Wait until patient│
                    │   Yes   │      │   No    │──────────────▶│ ready for discharge│
                    └─────────┘      └─────────┘               │   from audit .    │
                         │                                     └──────────────────┘
        ┌──────────────────────────────────────────┐
        │ Was the patient transferred to another STAG│
        │  hospital after attending your ED?         │
        └──────────────────────────────────────────┘
               │                      │                        ┌──────────────────┐
          ┌─────────┐           ┌─────────┐                    │ RC responsibility to│
          │   No    │           │   Yes   │───────────────────▶│     allocate      │
          └─────────┘           └─────────┘                    └──────────────────┘
               │
   ┌────────────────────────────────────────────────────────────────┐
   │ Was the patient transferred from or did they attend another     │
   │ hospital immediately before attending your ED?                  │
   └────────────────────────────────────────────────────────────────┘
        │                          │                              │
┌──────────────┐        ┌──────────────────┐            ┌─────────┐
│ Yes STAG     │        │ Yes Non STAG     │            │   No    │
│ Hospital     │        │ Hospital         │            └─────────┘
└──────────────┘        └──────────────────┘
        │                          │                              │
┌──────────────┐        ┌──────────────────┐            ┌──────────────────┐
│ RC           │        │ Complete single  │            │ Complete single  │
│ responsibility│       │ "region" box;    │            │ "region" box;    │
│ to allocate  │        │ 1=North          │            │ 1=North          │
└──────────────┘        │ 2=Central  3=SE  │            │ 2=Central  3=SE  │
                        │ 4=SW             │            │ 4=SW             │
                        └──────────────────┘            └──────────────────┘
                                 │                              │
                        ┌──────────────────┐        ┌──────────────────────┐
                        │ Enter 99 in      │        │ Enter first 2 digits │
                        │ "source centre"  │        │ from STAG code for   │
                        └──────────────────┘        │ your centre in "source│
                                 │                  │ centre" (refer to    │
                                 │                  │ appendix 3 STAG      │
                                 │                  │ Hospital/ISD codes)  │
                                 │                  └──────────────────────┘
                        ┌──────────────────┐                  │
                        │ Enter 1st 3 digits│       ┌──────────────────────┐
                        │ from your hospital│       │ Enter 000 in         │
                        │ STAG code in      │       │ "receiving centre"   │
                        │ "receiving centre"│       └──────────────────────┘
                        └──────────────────┘                  │
                                 │                            │
   ┌──────────────────────────────────────────────────────────────────┐
   │ Allocate next sequential 5 digit local STAG number in "STAG       │
   │ number" starting at 00001                                         │
   └──────────────────────────────────────────────────────────────────┘
                                 │
   ┌──────────────────────────────────────────────────────────────────┐
   │ Enter 0 in final box "linked form". (This will always be 0 unless │
   │ it is a linked attendance in which case the RC will allocate the  │
   │ number)                                                           │
   └──────────────────────────────────────────────────────────────────┘
```

Complete Cross Index and save on password protected server for local storage: *Refer to STAG Trauma Cross Index*

Allocating a number to the late transfer boxes on the trauma pro forma

A late transfer is when a patient is discharged from ED to another ward/department within the source hospital initially and is then transferred to another STAG hospital.

The late transfer number section of the proforma needs completion only if the patient is discharged from ED to another ward/department within the source hospital then transferred to another STAG hospital, otherwise the late transfer boxes should have 8 entered into each box to denote "not applicable".

Allocation of the late transfer number is as follows;

The single digit box "R" should reflect the **regional code** allocated to the hospital, the patient is leaving**.**

The double boxes marked "SC" should reflect the first 2 digits of the **source** centre code allocated to the hospital, the patient is leaving**.**

The triple boxes marked "RC" have two components to their completion. The first 2 of these boxes should reflect the first 2 digits of the *receiving* hospital's hospital code. The last digit should reflect the area within the receiving hospital that the patient was transferred to, as per the list below:

0 = Emergency Department
1 = Ward/HDU
2 = ITU
3 = Neuro
4 = Spinal Injuries Unit

This will be verified by the RC on allocation of the STAG number.

Examples:

A patient transferred from a ward in ARI to SIU.
STAG Number 1 34 000 9xxxx. 0
Late transfer number 1 34 364

A patient transferred from a ward in Ninewells to a ward in Crosshouse
STAG number 2 58 000 9xxxx. 0
Late transfer number 2 58 511

Section 5: Proforma completion notes

Task	Title	Who	Task Description
0.1	**OBJECTIVES**	ALL	To ensure that each new audit has comprehensively collected, robust, standardised data.
0.2	**PROCESS**		
0.2	Completion of data fields Comments section	LC	*Refer to STAG Trauma Proforma* Do not leave any boxes blank, unless specified. Enter the relevant codes as specified on the proforma. Additional codes are contained within these notes where there was limited space on the proforma. Where there are more boxes on the proforma than the value, prefix the value with a 0 (e.g. SBP = 66 should be recorded as 066). Unless otherwise stated within the guidelines: - where "not applicable" applies, enter 8 in each box, e.g. if a Dr was consulted but did not see the patient then the arrived time would be recorded as 88.88 (section 4/medical speciality in attendance) - where "not recorded" applies, enter 9 in each box e.g. if the time that a Dr was called was not recorded, 99:99 would be entered into the time called boxes (section 4/medical speciality in attendance). This option should only be used when all possible sources of information have been exhausted. **Do not substitute date/times for anything other than what is described in the following notes– if it's not available then 99 should be used.** Do not use any symbols, in any of the boxes. For all dates, use the format (DD,MM,YY) For all times**,** use the format (HH, MM,) - use the 24 hour clock. - midnight must be recorded as either 23.59 or 00.01 These guidelines will make reference, in bold, to areas where it is good practice to record information in the comments section. This section is also useful to verify anything that is out of the ordinary, e.g. excessive time spent in ED or widely deranged observations, etc. The comments section is for **Local Audit Coordinator use only;** it is intended that it will act as a memory jogger should further clarification be needed during the validation process. However it can prove useful during Quality Assurance procedures where some clarity may be required. **Please ensure that no identifiable information is recorded in the comments section e.g. staff names, hospital wards etc.**

0.3	**IDENTIFIER**		
	Family name	LC	Record the patient's surname.
	First Name	LC	Record the patient's first name.
	Postcode	LC	Record the full postcode of the patient's usual place of residence If postcode is unknown , enter 1 in each box for - Scottish Nationals For other UK nationals - enter 5 in each box. For internationals (any visitors from out with UK) - enter 9 in each box.
	Case note number	LC	Record the local hospital case note number– numeric and alphabetical.
	CHI number	LC	Record the patient's CHI number. It is compulsory to provide a chi number this is required for data linkage.
	Date of birth	LC	Record the patient's date of birth.
	ED number	LC	Record the local hospital ED number for the patient.
	STAG no.	LC	Local STAG audit number allocation Refer to Allocation of Local STAG Audit number **Note**: the local STAG audit number is not fully allocated until the end of the patient's stay. This is to allow for patients who are transferred to another hospital during their acute hospital stay.
1.0	**STAG Trauma**		
1.1	Hospital Code	LC	Record the unique **ISD code** allocated to your hospital e.g. Hairmyres Hospital is L302H (see appendix 3).
1.2	STAG Number	LC	Copy STAG audit number as allocated on name slip.
1.3	Sex	LC	Record the sex of the patient. If patient is trans-gender or going through gender reassignment, then record the sex the patient identifies with.
1.4	Age	LC	Record the age of the patient in years on attendance.
Paeds a	Age in months	LC	Record the age in months if the age of the patient is age 0. Round up to the nearest month, therefore if age is documented as 7 weeks this should be recorded as 02 months. Enter 88 if patient age is ≥ 1.
2.0	**Incident**		
2.01	Date of Incident	LC	Enter the date of incident.

2.02	Time of Incident	LC	Enter the time of incident. If the time of the incident is not recorded enter 99.99 – **do not** substitute with any other time.
2.1	Population Density	LC	What was the population density according to the postcode of where the **incident** occurred? The postcode may be available on the PRF if the patient arrived by ambulance, or the location of the incident may allow you to look up Google to identify a postcode of the incident If neither of these sources reveal a postcode, enter 99 *Refer to electronic file of Scottish Government definitions* 01 = Urban 02 = Rural Accessible small towns and remote small towns are both classed as urban. 99 should be entered if the postcode is not available
2.2	Alcohol	LC	Is there documentation to suggest that alcohol was involved in this incident? Take account of alcohol in relation to the incident not only the patient e.g. patient could have been assaulted by someone under the influence of alcohol so code would be 01 = yes. 99 (not documented) and 88 (not applicable) are NOT acceptable answers in this field. If no documentation to suggest there was alcohol involved, then use code 00= no
2.3	Toxicity	LC	Is there documentation to suggest that drugs (which are illegal to the population of Scotland) were involved in this incident? Take account of drugs in relation to the incident not only the patient e.g. patient could have been assaulted by someone under the influence of drugs so code would be 01 = yes. 99 (not documented) and 88 (not applicable) are NOT acceptable answers in this field. If no documentation to suggest there were illegal drugs involved, then use code 00= no
2.4	Locus:	LC	Record the location of the incident. 010=place of residence - The person's own home or the home of a third party. Home includes the main dwelling and any associated garden, driveway to home, garage, path (walk) to home, swimming pool in private house or garden, farmhouse, home premises, house, non-institutional place of residence, apartment, boarding house, private caravan park (residential), an institute with residential accommodation, e.g. home for the elderly, nursing home, prison, children's home, hospice, military institution, etc. 020=Transport area - Publicly owned and maintained highway, street, road, pavements or cycle path. Places where transport out-with a public highway, street or road takes place, e.g. private road, aircraft, ferry terminal, Parking area, Public transport area/facility such as bus terminal, railway station, underground station, airport etc. pedestrian mall, railway line etc. 030=business area non specified (use only if area cannot be further specified by codes 031,032,033).

			031=industrial or construction - place primarily intended for industrial or construction purposes. Refers to buildings, other structures, excavations and adjacent grounds. Demolition sites, mines quarries, factory/plant, oil and gas extraction facility, power station etc.
			032=farm (Excludes injuries occurring in the residential area of a farm, where the farm is the injured person's home).
			033=commercial area - A commercial area not primarily intended for recreational purposes, e.g. shop, store, commercial garage, office building, café, hotel, restaurant, casino, bar, dance/ night club, swimming pool of hotel, etc.
			040=school or educational area - Includes any educational establishment, e.g. nursery, college, university. Includes actual educational building and associated grounds, e.g. school playground.
			050=sports and recreational areas - Any place specifically intended for formal sporting purposes, e.g. leisure centre. Excludes places where informal sporting recreation may take place. Place primarily intended for recreational or cultural purposes (whether public or commercially owned) or any other public building. Includes public park/ playground, amusement/ theme park, holiday park, campsite, public religious place. Refers to open nature area not classified elsewhere e.g. Beach, cave, forest. Includes injuries occurring in water or the sea, where not part of a formal transport area e.g. marsh/ swamp, river, loch.
			060=medical service area – Any formal healthcare establishment, including hospital, heath centre, screening mobile van, etc.
2.5	Type of injury	LC	Record whether the injury has been caused by blunt or penetrating trauma. If both are present default to penetrating. **Note**: Either blunt or penetrating must be recorded. *Refer to Appendix 4 :STAG Penetrating injury definitions*
2.51	Mode of penetrating injury	LC	**If mechanism of penetrating injury was assault** enter the mode of penetrating injury. Otherwise enter 88 for "not applicable". 01 = Bladed or pointed instrument e.g. knife, machete, or any instrument adapted to have a blade/point such has sharpened screw driver. 02 = Firearm e.g. gunshot, pellets. 03 = both. 04 = Other e.g. glass, bites, wooden stake - **Specify in comments section.**
2.6	Mechanism of Injury	LC	**Record specific details in comments section.** 01 = MVA - refers to any motor vehicular accident e.g. train, and includes bicycles but not Motocross 02= assault – was there suspicion or confirmation of the injury being caused by an assault 03 = Fall>2m/6ft 6" - a vertical drop of greater than 2 metres, e.g. this could be a witnessed fall down a flight of stairs or jumps/fall from bridge/scaffolding 04 = Fall<2m/6ft 6" - e.g. a trip or slip from own height or documented fall of less than 2 metres 05 = other - use if mechanism of injury is none of the options given

	PAEDS		here or 'unknown' 06 = sport - refers to any injury sustained during participation in a sport, including falling from a horse, motocross. **If the mechanism of injury was sport or other please record the details in the comments section.** **Paeds- If injury was sustained while 'playing' on a toy vehicle or bike then treat as sport.**
	Sport type	LC	**If the mechanism of injury was sport enter sports type:** 01 Football 02 Rugby 03 Horse riding 04 Cycling / mountain biking 05 Skateboarding / rollerblading 06 Athletics 07 Motorised (e.g. Motocross) 08 Snow related (e.g. snowboarding) 09 Racket 10 Height (e.g. rock climbing/paragliding) 11 Other sport 88 Not applicable 99 Not recorded
2.6.1	MVA type	LC	If mechanism of injury was an MVA record details of MVA: 01 = motor vehicle versus motor vehicle 02 = motor vehicle versus pedestrian 03 = motor vehicle versus other e.g. wall, ditch, verge etc If the mechanism of injury was not an MVA enter 88
2.6.2	MVA patient is	LC	If Mechanism of injury was an MVA record the following to describe the patient's involvement in the MVA 01 = driver (use for cyclists, and motorbikes as well as cars) 02 = front seat passenger (use for side car passenger as well as cars) 03 = rear seat passenger (use for pillion passenger as well as cars) 04 = pedestrian If the mechanism of injury was not an MVA enter 88
3.0	**Pre Hospital**		The primary source of information for this section should be the ambulance patient report forms (PRF) though ED notes may be used as a secondary source. If the case is a linked case , then 8 should be entered into each box in this section, on the 2nd ED form , regardless of how the patient was transported to the 2nd ED
3.1	Mode of Arrival	LC	Record mode of arrival at the hospital site – if the patient arrives at the hospital site in a helicopter, and is transferred to the A&E dept by road ambulance, please record this as arrived by air. Use 01 = self if patient arrives by any means other than SAS ambulance or air, e.g. car, police, taxi, private ambulance etc. If code 01 is used in this field, then all remaining boxes can be left blank in section 3.

			Note: If the patient was transferred from a non-STAG hospital, record information pertaining to the journey to the STAG hospital.
3.2	SAS Incident No.	LC	Record all digits from ambulance incidence/ patient report form (PRF), ending up in the 11th box. The code *may* start with 2 letters and may have a suffix of 3 digits after the '.' (point). Complete this information only if patient arrives by SAS (Do not use incident no's from EMRS, Royal navy, Coastguard etc) E.g. PA000123456.001 E.g. ÿÿÿÿ 0001234.001 E.g. ÿÿÿÿ 0001234. ÿÿÿ In the 2 examples above, the boxes with no number can be left blank. If there is no incidence form (PRF) available, enter 9 into all boxes. **Note:** If the patient was transferred from non-STAG hospital record information pertaining to the journey to the STAG hospital.
3.3	Call Started Date and time	LC	Enter date and time that Scottish Ambulance Service received the call to attend the incident. This will be on the ambulance patient report form (PRF). **Note:** If the patient was transferred from non STAG hospital record information pertaining to the journey to the STAG hospital.
3.4	Paramedic	LC	Record whether or not a paramedic attended the patient prior to arrival at the STAG ED. If no field initiated to say that a paramedic was present or not, enter 99. If it is documented that patient cannulated by SAS then enter 01 (Yes) for this section. (as only paramedics can carry this out.) *Paediatric data set: not collected.*
3.5	Pre Hosp Medic	LC	Record whether or not there was any doctor in attendance prior to arrival at the STAG ED. *Paediatric data set: not collected.*
3.7	Cannulation	LC	Record whether or not the patient was cannulated prior to arrival at the STAG ED. Answer Yes if · evidence of cannulation or IV opioid (eg morphine) given pre hospital · If Intra Osseous access pre hospital. If no field initiated to say that patient was cannulated or had IV drugs, enter 99 *Paediatric data set: not collected.*
3.71	IV Fluid vol	LC	Record total volume given in litres regardless of type prior to arrival at the STAG ED. Round volume up to the nearest point e.g. Record 250 mls as 0.3 litres Record '0' in each box, if patient cannulated but no fluid given Record 8.8 = not applicable if patient was not cannulated. Record 9.9 if volume of fluid given was not known. N.B If patient received IV drugs, but there is no documentation

	Paeds		regarding volume of fluids given, you can assume that no fluids were given. *Paediatric data set: please enter IV fluids given pre-hospital in mls.*
Paeds b	Blood products given		Record whether the patient was given IV Blood products during the pre-hospital stage of the patient journey.
Paeds c	Blood products volume		Paediatric data set: please enter Blood given pre-hospital in mls if this information is available. If only the number of units is available enter 9999. If the patient did not receive blood products enter 8888.
3.8	Air Transfer	LC	Record whether; at any point in the course of the patient's journey from the incident to this STAG hospital, he/she was transferred by air. In the updated version of the proforma there is a new option for provider unknown – please use this option if an air transfer was made but you can't determine which agency. **If 'other' specify in the comments section**
4.0	**Emergency Department**		**All care, interventions etc that occurred prior to discharge from the emergency department should be included in this section. E.g. details of a Dr seeing a patient in radiology prior to returning to ED should be recorded.**
4.010	Enter ED date and time	LC	Enter date and time that the patient attended ED-(record time of arrival in ED as the first evidence of patient being in department - so that might be PRF arrival time, EWS chart, ED card, TRAK etc)
4.020	Standby	LC	Record whether or not there was a pre alert call to ED to give them notice of arrival to allow preparation for patient e.g. standby call. If Mode of arrival = 01, then Standby should = 88 (Not applicable).
4.030	Area	LC	Record the area of ED to which the patient was initially triaged to. If there is no official triage process you should still enter the first area that the patient was managed in.
4.031	Retriage to resus	LC	Record whether or not the patient was moved from a general area in ED to resus. If any patients are moved for routine procedures i.e. manipulation of fractures/dislocations enter 00=No. If the initial area was resus enter 88 = Not applicable.
4.032	Date &Time	LC	If re- triaged, enter date & time that the patient was transferred into the resuscitation area. If the patient was not re-triaged date and time boxes can be left blank
4.040	Depart ED date and time	LC	Enter date and time that the patient was finally discharged from ED i.e. the time that they left the department. If the patient dies in ED enter the time of death rather than the time of transfer to the mortuary. If timings of subsequent events suggest that the time left ED has been entered **after** the patient left ED (ie as an afterthought ,in order to progress their journey within the system) , advise central team via isd mailbox of details to substantiate this and it will be discussed at monthly COMMS meeting and LAC will be advised of action to be

			taken
4.041	Dest from ED	LC	Enter the first destination from ED. **Note:** 06=Neuro should be used for onsite neurosurgical wards only. Neuro ITU should be recorded as ITU. If patient is taken to the theatre area but no surgery is performed enter the code10 (Theatre/no surgery performed).
4.042	Ult Dest	LC	If the destination from ED was to theatre, radiology or another hospital, enter the area to which the patient was first admitted. If patient went directly from ED into a bed within the source hospital enter 88 = Not applicable **Note:** use the same codes as Destination from ED as above.
4.050	Spec. Ref.	LC	Enter whether or not a patient was referred to either of the following specialties whilst in ED, regardless of whether the specialty Dr actually attended the patient in ED (or if patient referred but not accepted by Neurology over phone). Enter 01=Neuro, 02= SIU (spinal injuries unit), 03=both If patient was not referred to Neuro or SIU then enter 88 = Not applicable.
4.060	Late Transfer	LC RC	If the patient is discharged from ED to another ward/department within the hospital and is subsequently transferred to another hospital, this is known as a "late transfer". Enter date of transfer into electronic Cross Index. Refer to Transfer Protocol The RC will be responsible for allocating the late transfer number. If the patient stays in your hospital throughout their stay, enter 8 into each box.
4.070	Band of Nurse	LC	Record the band of nurse who triaged the patient. Use code 09 for an Emergency Nurse Practitioner, regardless of his/her grade. A list of nurse grades will be available from the Lead Nurse. *Paediatric data set: not collected.*
4.080	12 lead ECG	LC	Record whether or not a 12 lead ECG was performed whilst in ED. If there is no evidence of an ECG then enter 00. *Paediatric data set: not collected.*
4.090	O$_2$ Sats	LC	Record whether or not the patient had an oxygen saturation measured whilst in ED. This can be from a capillary or arterial measurement. If there is no evidence of O2 Sats then enter 00.

4.10	SBP, RR, GCS	LC	In most circumstances the first recording of observations on attendance to ED should be used. **Please** familiarise yourself with **exceptions to the rules** below which override the **normal rules** which are:
			There are four options for the source of each of these observations and this source should be indicated in the box preceding the value:
			1=on attendance at ED 2=last set on pre-hospital documentation 3=first recorded within the first hour of attendance 4= allocated normal value (SBP= 120 RR=14 GCS= 15)
			Allocated normal values should only be used as a last option!
			Record the SBP, RR and breakdown/total of the GCS from the sources described above (the most favoured being source 1 and the least favoured being source 4).
			Example;
			Patient has SBP and GCS recorded on attendance at ED.
			- B/P and GCS values should be recorded noting the source for each as 1, - RR is recorded on the PRF (use the last value on PRF if there is more than one recording) noting the source as 2.
			EXCEPTIONS TO THE RULES
			SBP · If a patient's SBP is un-recordable from any of the first three sources, a value of 00 should be entered, and the source documented as 1. · If a patient is documented to be in cardiac arrest on arrival in ED, then the value of 00 should be used with the source 1. · If a patient arrives in ED ventilated then the pre-intubation SBP should be used, even if this is 0 and note should be made in comments section. In this situation the source is 8.
			RR · If a patient arrives in ED ventilated (mechanical or hand bagging), then the pre-ventilation RR should be used, even if this is 0 and note should be made in comments section. In this situation the source is 8. · If a patient is documented to be in respiratory or cardiac arrest on arrival in ED, then the value of 00 should be used with the source 1.
			GCS · If a patient arrives in ED after having been sedated to allow intubation (whether intubation was successful or not) then the pre-intubation GCS should be used and the source will be 8. · If a patient is documented to be in respiratory or cardiac arrest on arrival to ED, then the GCS should be recorded as 3 with the source 1.
			In the absence of a GCS score patients can be given a total score of 15 in the following circumstances:
			· If they are documented as being alert and orientated (or other similar description), · If they have an AVPU of Alert.

	Paeds		In these circumstances enter the relevant value – 4, 5, 6 into "E", "V" and "M" and enter 15 into the GCS total box.
			Where the GCS is recorded as a total but the breakdown is not available enter "99" in to E, M and V unless the score total is 15 or 3, in which case enter the values 4, 5, 6 or 1, 1, 1 respectively.
			Please remember the GCS is a fundamental element in the calculation of probability of survival (Ps12).
			Paediatrics - use the paediatric GCS score for patient's ≤ 5 years. Enter source as adult but **DO NOT** enter allocated obs. If no GCS is available enter 99 for value and 9 for source.
Paeds d	HR, Temp, SBP, RR		Heart rate: enter beats per minute.
			Temperature: enter in centigrade in the format xx.x.
			SBP: enter the systolic recording
			RR : enter breaths per minute
			Enter source as described in the above section. Do not use allocated obs. If no obs are documented, enter 99 for value and 9 for source.
Paeds e	lactate	LC	If a blood lactate has been performed, record first result in the Emergency Department. Enter value in mmols/L.
			If lactate was not performed then enter 88.8 and 99.9 if it was not recorded.
Paeds f	Patient weight	LC	Enter patient's weight in kgs. This can be actual or estimated weight. ED weight should be used and if this is not available please use weight documented by pre hospital team. If no weight is documented enter 999.9
Paeds g	Weight	LC	Enter whether the patient weight is:
			01 = Actual
			02 = Estimated
			99 = Not recorded (if no documented weight (actual or estimated) in notes prior to leaving ED. Drug calculations cannot be used to estimate weight.
Paeds h	Source of Weight	LC	Use following codes in this order of priority for source of weight
			1 = ED (current or first ED) 2 = Pre hospital
			Enter 9 if weight not recorded.
4.110	Medical speciality in attendance in ED -Time called -Time arrived - Dr Grade - Speciality - D1 – day	LC	For each speciality attending the patient prior to discharge from ED, record details of the **most senior doctor** attending for each specialty:
			· the time that the doctor was called
			· the time that the doctor arrived
			· the grade of most senior doctor attending the patient for each speciality. (01=Cons, 02=Ass Spec/SD, 03=ST4-8, 04, ST3, 05=ST ½, GPST, FY2, 06=Clinical Ass, 07=FY1, 08=Locum, 10=ENP, 11=Physicians Assistant, 12=Nurse Consultant/ Advanced Practitioner)
			NB If the patient is attended by a Locum Consultant. Record as 01 and

	called -D2 day arrived		· add note in comments section to reflect that it was a locum · the speciality of the doctor attending the patient · the day they were called and the day they arrived (i.e. called on the 15th, arrived on the 16th) **If a doctor was telephoned, but did not attend, enter 8 = not applicable into the time arrived boxes. Use this rule in all circumstances where the doctor didn't see the patient before they left ED even if they were never expected to attend.** A list of names and grades should be available from secretarial staff in different specialties or from the local intranet. **If "other speciality" code used, specify the speciality in comments section.**
4.120	EWS	LC	Record whether or not an early warning system chart was used prior to discharge from ED. The term EWS also includes any resus charts accepted for use in your hospital. Please note the term CEWS is used on the paediatric proforma
4.121	Date and time	LC	If yes record the date and time that the chart was first used. If no – leave date and time blank.
4.130	Chest drain	LC	Record whether or not a chest drain was inserted prior to discharge from ED. *Paediatric data set: not collected.*
4.131	Date and time	LC	If yes record the date and time that the first chest drain was inserted If no – leave date and time blank.
4.140	IV ABX	LC	Record whether or not IV antibiotics were given either pre-hospital or within the first three hours following arrival in ED. All IV AXB should be recorded for a time period of 3 hours following arrival in ED. If there is no time recorded in the pre-hospital phase, please default to the time the patient left the scene or time the patient arrived in ED if left scene time is unavailable.
4.141	Date and time	LC	If yes, record the date and time of the first administration of IV antibiotics. If no – leave date and time blank.
4.150	Chest XR	LC	Record whether or not a chest x ray was performed prior to discharge from ED.
4.151	Date and time	LC	If yes record the date and time that the first chest x ray was performed. Details should be taken from PACS Radiology reporting systems. *Please discuss whether this system has been calibrated with your Superintendent Radiographer to ensure that this time is accurate.* If no – leave date and time blank.

4.160	Blood Gases	LC	Record whether or not arterial or venous blood gases were measured prior to discharge from ED,
4.161	Date and time	LC	If yes record the date and time of the first set of gases. If no – leave date and time blank.
4.170	CT Scan	LC	Record whether or not a CT scan was performed prior to discharge from ED,
4.171	Date and time	LC	If yes record the date and time that the first CT scan was performed Details should be taken from PACS Radiology reporting systems. *Please discuss whether this system has been calibrated with your Superintendent Radiographer to ensure that this time is accurate.* If no – leave all other details regarding CT blank
4.172	CT body Area	LC	Record on which area of the body the first CT scan was performed. Up to 2 areas can be recorded. If a patient has had more than two body areas scanned, but not had a pan (whole body) CT, make note of other areas in comments section. If the patient received a full body scan, this can be recorded as 04=pan. If the full body scan included a head scan please record 01=Head and 04=Pan.
Paeds i	Total IV fluids	LC	Record the total amount of IV fluids administered in the Emergency Department. Record as mls. Only record bolus doses and not maintenance fluid.
Paeds j	Blood products given (ED)		Record whether the patient was given IV Blood products whilst in the Emergency Department.
Paeds k	Blood products volume (ED)		Paediatric data set: please enter Blood given in ED in mls if this information is available. If only the number of units is available enter 9999. If the patient did not receive blood products enter 8888.
4.180	Intubation	LC	Record whether or not the patient was intubated prior to discharge from ED and record whether this occurred prior to arrival at hospital. Intubation is a shorter term for tracheal intubation and is via an endotracheal tube (ETT) or tracheostomy.
4.181	Date and time	LC	If yes record the date and time of the first intubation either pre hospital or prior to discharge from ED. If no – leave all other details regarding intubation blank
4.182	Intubated by	LC	Record who the patient was intubated by.
4.183	Dr Grade intubation	LC	If a doctor intubated the patient record the grade – use codes from 'medical specialty on attendance'.
4.184	Speciality	LC	Record the speciality of the doctor performing the intubation– use codes from 'medical specialty on attendance'.

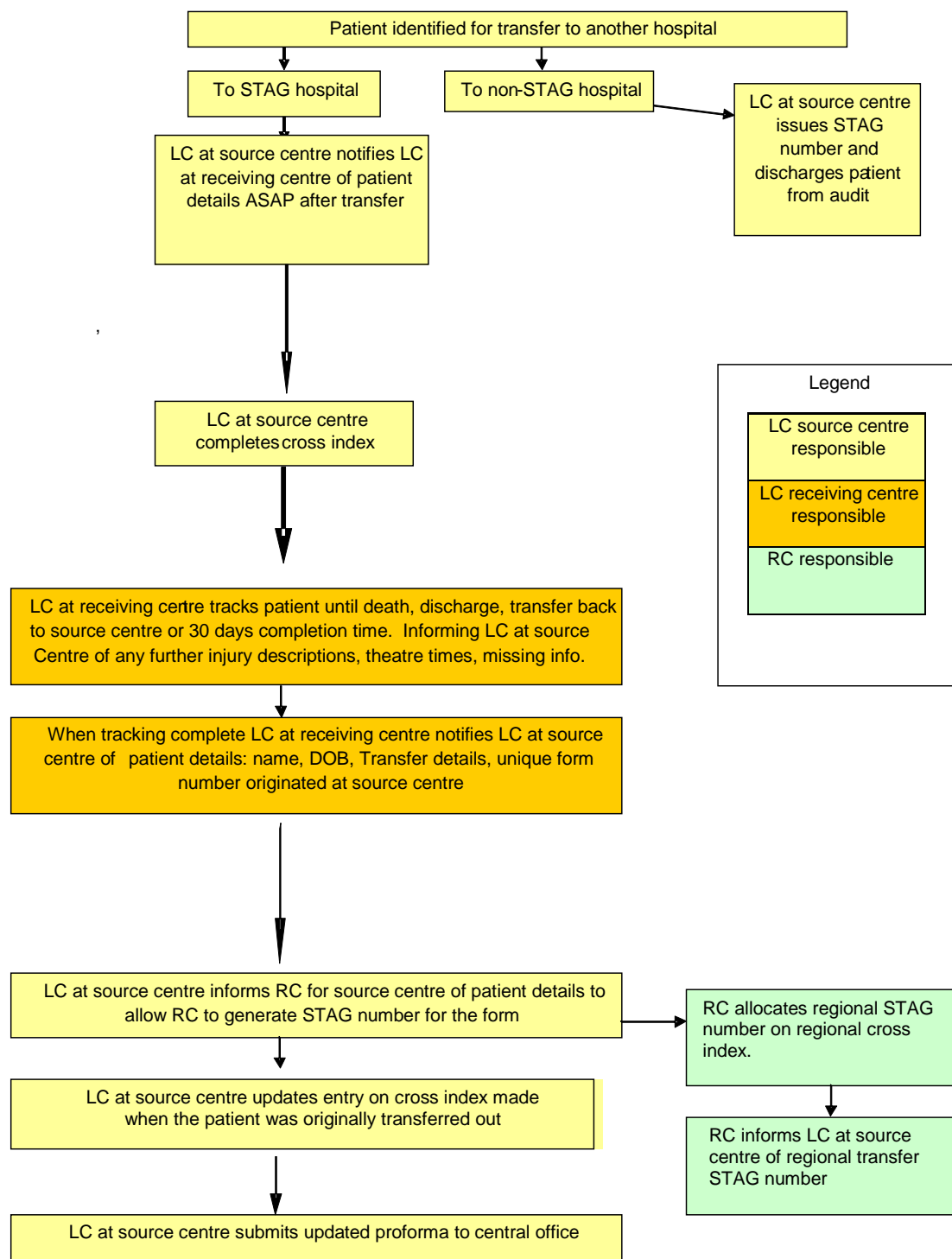| 4.185	An. Drugs	LC	If patient was intubated, were any anaesthetic drugs used? Please refer to BNF etc. for lists of current drugs.
4.190	Theatre	LC	Record whether or not the patient was taken to theatre for surgery relating to the incident, at any point during their acute stay.
4.191	Date and time	LC	If yes, record the date and time of the **first** operation. This should be when the operation OR procedure started. This may be available from an electronic theatre system, anaesthetic sheet or theatre register. If no – leave all other details regarding theatre blank
4.192	An grade	LC	Enter the grade of the most senior anaesthetist in theatre. Use the codes from 'medical specialty' on part 4.110 of the proforma.
4.193	Op type	LC	Record the type of operation (up to a maximum of two operations occurring under the same anaesthetic). If more than one type of operation was performed, enter the different types in chronological order eg Op 1 - Laparotomy and Op 2 - Pelvic fixation.
4.194	Surg grade 1	LC	Enter the grade of the most senior surgeon in theatre for the first operation type ie Laparotomy Use the codes from 'medical specialty' on part 4.110 of the proforma.
4.195	Surg grade 2	LC	Enter the grade of the most senior surgeon in theatre for the second operation type. ie Pelvic fixation Use the codes from 'medical specialty' on part 4.110 of the proforma.
	STAG No.	LC	Copy STAG audit number as allocated on name slip.
5.0	**Injury Scoring**		Use AIS Dictionary (2005 version with 2008 update). **Do not submit proforma until scoring is complete.**
5.01	Injury Description	LC	List the injuries in Rows 1 -18. If patient has more than 18 injuries, use Additional Injuries Sheet and amend the numbers on the additional sheet to start with 'line' 19 and end at line 43 (this will help you when completing any validations).). *Please note no more than 43 lines of injuries can be added to paper proforma. New electronic proforma may differ and these guidelines will updated accordingly.* Record individual injuries from the patient's case notes. Be as descriptive as possible, including length, and depth of lacerations, any underlying injuries, and specific bones and associated damage, whether unilateral or bilateral. If there is only minimal injury description in the case notes, clinical staff should be contacted to provide further description.

			Only if no further description is available enter NFS = Nothing Further Specified, after the injury description. The most accurate injury descriptions are likely to be obtained from X Ray /CT reports and theatre operation notes.
			Remember not to include injuries such as rib #'s sustained during and attributable to CPR.
5.02	Region	LC	Record the code relevant to injured body region as categorised in AIS dictionary used for coding.
5.03	AIS - code(2005) - score	LC	Using the AIS dictionary (2005 version with 2008 update), determine the code most applicable to each injury. If injury descriptions do not appear concise enough to obviously allocate a code, then re-visit the case notes or check the radiology reporting system for more detail. The number following the point at the end of each injury code denotes the score and should be entered in the "score" box on the form.
5.04	Source	LC	The most accurate source of the injury description should be recorded: e.g. an injury description may initially be diagnosed from clinical observation by the doctor, and later be confirmed on X Ray. The injury source would be recorded as 5 = X Ray. As Quality Assurance checks require confirmation of the source of injury, it is important that this is recorded accurately. For any injuries coded/scored on the proforma as a result of discussion/confirmation with clinical teams, add to the comments section of the proforma what decision was made and by which grade of clinician. Ensure that no identifiable information is noted in this section ie. Clinical team names. <u>Example</u> Injury was coded on line 1 on the basis of decision by clinician which differs from clinical notes explanation of injury. Injury documented on electronic system = Maxillary fracture Le Fort III 250808 with score =3 Same injury discussed with clinician and confirmed it should = Maxillary fracture, Le Fort III & blood loss >20% 250810 with score =4 Please write in comments section quoting line number of injury referring to and grade of clinician who confirmed decision.
5.1	Open Limb	LC	If the patient had any long bone fractures, were these fracture(s) open?
5.2	Additional injuries	LC	Record if an additional injury scoring sheet has been used. If using an additional sheet enter the unique form number from the main form to the boxes at the top and bottom left hand corners of the form. Please ensure that you start with line '19' and end at line 43 Do not use staples for original copies of forms when sending for submission.
5.3	ISS Score	LC	Calculate the Injury Severity Scale (ISS) score from the scores of the injury descriptions. **Note**: a maximum of 3 different body regions will contribute to this score, with only 1 score being from each body region. To calculate the ISS score, use a maximum of the three highest scoring regions. Square the highest score in each of the 3 regions and add

			together to give the Injury Severity Score.
			i.e.
			patient with undisplaced # sternum region = 3 score = 2
			# midshaft R clavicle region = 5 score = 2
			L sided rib #s 5th,6th, 7^{th,} 8th with flail region = 3 score = 3
			Major L sided pneumothorax region = 3 score = 4
			# L$_1$ vertebral body region = 4 score = 2
			Abrasions to lower abdomen region = 6 score = 1
			Therefore, ISS calculated as follows: Region 3 = 4x4 (16)
			Region 4 = 2x2 (4)
			Region 5 = 2x2 (4)
			Total ISS = 24
6.0	**Outcomes**		
6.01		LC	Record whether patient was alive or dead at the point of discharge from the audit. If the patient has been discharged to anywhere other than home prior to 30 days, note date and destination in the comments section
6.1	DOD	LC	This refers to whichever one of the following dates occurs *first*; the date of discharge from the acute hospital, the date of death or the date of discharge from the audit.
			Enter date of discharge from the acute hospital bed /date of death.
			Add information to electronic cross index.
			If the patient is still a continuous in patient after 30 days, then they should be discharged from the audit e.g. patient admitted on 18th of Oct , if still a continuous in patient on 17th Nov, would have a discharge date from the audit of 17th Nov.
6.2	Local audit	LC	If the LC or any member of the hospital staff has concerns about any stage of the patients' management, the appropriate code(s) should be entered.
			Specify the reason for audit e.g., delay to theatre, in the comments section.
			The LC should discuss these cases with their STAG Clinical Lead and/or RC.
6.30	LOS (days)	LC	Length of continuous in-patient stay.
			Record number of in - patient days, excluding the date of attendance, unless patient died on date of attendance, e.g.
			if attended on 18th , died on 18th - Length of stay would be 1 day
			If attended on 18th, died / discharged on 25th - Length of stay would be 7 days.
6.31	ITU	LC	Record the number of days the patient spent in an Intensive Care Unit. Record 00 if the patient did not spend any time in an Intensive Care

			Unit.

If patient stayed less than a whole day, record as 01 day.

For patients whose stay is more than one day calculate as per inclusion criteria eg patient admitted on the 1st and discharged on the 5th would have a LOS of 4 days. |
| 6.32 | Neuro ITU | LC | Record the number of day's patient spent in Neurosurgical Intensive Care Unit. If patient stayed less than a whole day, record as 01 day. Record 00 if the patient did not spend any time in Neuro ITU.

For patients whose stay is more than one day calculate as per inclusion criteria eg patient admitted on the 1st and discharged on the 5th would have a LOS of 4 days. |
| 6.33 | SIU | LC | Record number of days spent in Spinal Injury Unit (including SIU HDU days). If patient stayed less than a whole day, record as 01 day. Record 00 if the patient did not spend any time in SIU.

For patients whose stay is more than one day calculate as per inclusion criteria eg patient admitted on the 1st and discharged on the 5th would have a LOS of 4 days. |
| 6.34 | HDU | LC | Record number of days spent in High Dependency Unit, If patient stayed less than a whole day, record as 01 day. **Do not record SIU HDU days here.** Record 00 if the patient did not spend any time in HDU.

For patients whose stay is more than one day calculate as per inclusion criteria eg patient admitted on the 1st and discharged on the 5th would have a LOS of 4 days. |
| 6.40 | First Critical care admission | | If the patient is admitted to a Critical care area (i.e. HDU or ITU) at any time during their stay (up to 30 days) check whether the ICU/HDU participates in the SICSAG Audit and note in Comments section if it does not. |
| 6.40 | WW unit code | LC | If patient did not spend time in Critical care enter 88888 for WW unit code

If patient spent time in Critical care enter SICSAG identifying code for the unit of 1st admission e.g. GRI01

See Appendix 5 : SICSAG Unit Codes Enter 99999 if unit does not participate in SICSAG Audit

Paediatric data set: not collected. |
| 6.41 | WW epikey | LC | If patient did not spend time in Critical care enter 888888 for WW epi key

If the patient spent time in Critical Care enter individual EPI /Key number for the 1st admission

Enter 9999999 if unit does not participate in SICSAG Audit

Note: admission to CCU = admission to a ward, not Critical care

Paediatric data set: not collected. |

Paeds l	Non accidental injury	LC	Enter whether there is documentation of non-accidental injury (NAI): 00= no NAI 01 = yes 02 = suspected
6.5	RP1 - 4	LC	In the event of these boxes being used nationally, further guidance will be issued. If a local issue is identified, these boxes can be used to collect a snapshot of data for local feedback. If an issue is identified the use of the boxes should be discussed with the regional coordinator.
6.51	RP1 Paeds	LC	Record whether or not a pelvic binder was applied prior to leaving ED. Record 00=No, 01=Yes or 99 Not recorded. Please note any form of pelvic binding should be recorded including use of a specific device or use of an improvised device such as a draw sheet. If the binder was applied prior to the ED please write this in comments section. This field has been renamed pelvic binder on the paediatric proforma.
6.52	RP1 date Paeds	LC	Record the date that the binder was applied. This field has been renamed date on the paediatric proforma.
6.53	RP1 time Paeds	LC	Record the time that the binder was applied even if this was prior to arrival at ED. If the binder was applied pre hospital and no time is documented, the time of the crew leaving the scene should be used as the time of application. This field has been renamed time on the paediatric proforma.
Paeds m	RP2		Record whether or not the patient attended another ED between the incident and arrival at specialist paediatric ED.
Paeds n	RP2 date		Record the date of attendance at the first ED.
Paeds o	RP2 time		Record the Time of attendance at the first ED.
Paeds p	ISD code first ED		Record the ISD code of the first ED attended.

Section 6: Transfer Protocol

Patient identified for transfer to another hospital

To STAG hospital	To non-STAG hospital	LC at source centre issues STAG number and discharges patient from audit

LC at source centre notifies LC at receiving centre of patient details ASAP after transfer

LC at source centre completes cross index

LC at receiving centre tracks patient until death, discharge, transfer back to source centre or 30 days completion time. Informing LC at source Centre of any further injury descriptions, theatre times, missing info.

When tracking complete LC at receiving centre notifies LC at source centre of patient details: name, DOB, Transfer details, unique form number originated at source centre

LC at source centre informs RC for source centre of patient details to allow RC to generate STAG number for the form

RC allocates regional STAG number on regional cross index.

LC at source centre updates entry on cross index made when the patient was originally transferred out

RC informs LC at source centre of regional transfer STAG number

LC at source centre submits updated proforma to central office

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Legend

LC source centre responsible
LC receiving centre responsible
RC responsible

Data Protection Act and Caldicott Recommendations must be adhered to; therefore any patient identifiable information must be removed prior to sending the form.

Appendix 1: Reference to Documents

· STAG Trauma Tracking Sheet V1.3.xls

· STAG Trauma Cross Index V1.3.xls

· STAG Trauma Proforma Submission V2.0.xls

· STAG Trauma Monthly Summary V4.0.xls (electronic)

· ISD postcode Lookup (electronic)

Appendix 2: Glossary of Terms

AIS   Abbreviated Injury Scale, numerical code given to describe trauma injuries

CC   (National) Clinical Coordinator

ED   Emergency Department, previously known as Accident and Emergency (A&E)

GCS   Glasgow coma scale

HDU   High Dependency Unit

HR   Heart rate

ICU/ ITU   Intensive Care Unit/Intensive Therapy Unit, terms used interchangeably depending on project but mean the same

ISD   Information Services Division of NHS National Services Scotland

ISS   Injury Severity Score, used to allocate numerical score to indicate severity of injuries

LC/ LAC   Local Coordinator, Local Audit Coordinator, terms used interchangeably depending on space but mean the same

Ps12   Probability of Survival 12, (Outcome Prediction Model)

RC   Regional Coordinator

RR   Respiratory rate

SBP   Systolic blood pressure

SIMD   Scottish Index of Multiple Deprivation

TARN   Trauma Audit & Research Network

Temp   Temperature

Appendix 3: ISD and STAG hospital codes

Currently participating sites

ISD Hospital Code	Hospital Name	STAG No	STAG Region
N101H	Aberdeen Royal Infirmary	3400	North=1
A210H	Ayr Hospital	3900	South West=4
A111H	Crosshouse Hospital, Kilmarnock	5100	South West=4
Y104H	Dumfries and Galloway Royal Infirmary	4800	South West=4
V217H	Forth Valley Royal Infirmary, Larbert	7200	South East=3
G107H	Glasgow Royal Infirmary	3300	South West=4
L302H	Hairmyres Hospital, East Kilbride	4200	South West=4
C313H	Inverclyde Royal Hospital, Greenock	5600	South West=4
L106H	Monklands Hospital, Airdrie	4400	South West=4
T101H	Ninewells Hospital, Dundee	5800	Central=2
T202H	Perth Royal Infirmary	5500	Central=2
S308H	St John's Hospital, Livingston	3800	South East=3
H202H	Raigmore Hospital, Inverness	4500	North=1
C418H	Royal Alexandra Hospital, Paisley	5400	South West=4
S226H	Royal Infirmary, Edinburgh	3100	South East=3
G405H	Queen Elizabeth University Hospital, Glasgow	3600	South West=4
G513H	Royal Hospital for Children, Glasgow	7300	South West=4
F704H	Victoria Hospital, Kirkcaldy	6200	South East=3
L308H	Wishaw General Hospital	3700	South West=4

Appendix 4: Penetrating injury examples

Blunt or Penetrating Injuries

· In general injuries are defined according to the mechanism of injury

· The exception to this is injuries caused by a penetrating object which results in a superficial injury, in which case they should be termed as blunt. In reality a patient who only has a superficial injury caused by a sharp object is unlikely to be included in the audit (see exclusion criteria)

· If both blunt and penetrating injuries exist, injuries are classed as penetrating

Blunt	Penetrating
Superficial skin laceration	gunshot pellets
Amputations	hand/foot through glass door or window
Crush injuries	stabbing e.g. abdominal, chest trauma circular saw/chain saw machete.
	Abdominal stabbing (With organ damage)
	Abdominal stabbing (No underlying organ damage)
	Machete to head causing compound, depressed fracture
	Gunshot wounds

Appendix 5: SICSAG Unit Codes 2015

WW Unit Code	WW Unit Code Details	Comments
ARI01	Aberdeen Royal Infirmary ICU	Active
ARI02	Aberdeen Royal Infirmary Surgical HDU (31/32)	Active
ARI03	Aberdeen Royal Infirmary Neuro HDU	Active
ARI04	Aberdeen Royal Infirmary Surgical HDU (35)	Active
ARI05	Aberdeen Royal Infirmary Cardiothoracic HDU	Active
ARI06	Aberdeen Royal Infirmary Cardiothoracic ICU before 2014	Inactive
ARI07	Aberdeen Royal Infirmary Cardiothoracic ICU added in 2014	Active
ARI08	Aberdeen Royal Infirmary Medical HDU added in 2015	Active
AYR01	Ayr Hospital ICU	Active
AYR02	Ayr Hospital HDU	Active
BEL01	Belford HDU added in 2014	Active
BGH01	Borders General Hospital ICU/HDU added in 2014	Active
CRH01	Crosshouse Hospital ICU	Active
CRH02	Crosshouse Hospital Medical HDU	Active
CRH03	Crosshouse Hospital Surgical HDU	Active
DMG01	Dumfries & Galloway ICU	Active
DMG02	Dumfries & Galloway Medical HDU	Active
DMG03	Dumfries & Galloway Surgical HDU	Active
DRG01	Dr Gray's HDU	Active
FIF01	Victoria Hospital Kirkcaldy ICU added in 2014	Active
FIF02	Victoria Hospital Kirkcaldy Surgical HDU added in 2014	Active
FIF03	Victoria Hospital Kirkcaldy Medical HDU added in 2014	Active
FIF04	Victoria Hospital Kirkcaldy Renal HDU added in 2014	Active
FVH01	Forth Valley Royal Hospital	Active
GBH01	Gilbert Bain Hospital, Shetland added in 2014	Active
GGH01	Gartnavel General Hospital HDU	Active
GJH01	Golden Jubilee Hospital ICU/HDU	Active
GRI01	Glasgow Royal Infirmary ICU	Active
GRI02	Glasgow Royal Infirmary Surgical HDU	Active
GRI03	Glasgow Royal Infirmary Medical HDU	Active
GRI04	Princess Royal Maternity Hospital added in 2015	Active
HRM01	Hairmyres Hospital ICU/HDU	Active
HRM03	Hairmyres Hospital Medical HDU	Active
IRH01	Inverclyde Royal Hospital ICU	Active
IRH02	Inverclyde Royal Hospital Surgical HDU	Active
MNK01	Monklands DGH ICU	Active
MNK02	Monklands DGH Surgical HDU	Active
MNK03	Monklands DGH Medical HDU	Active
NWD01	Ninewells Hospital ICU	Active
NWD02	Ninewells Hospital Medical HDU	Active
NWD03	Ninewells Hospital Surgical HDU	Active
NWD04	Ninewells Hospital Neuro HDU added in 2015	Active
NWD05	Ninewells Hospital Obstetric HDU added in 2014	Active
ORK01	Balfour Hospital, Orkney HDU added in 2014	Active

PRI01	Perth Royal Infirmary ICU	Active
PRI02	Perth Royal Infirmary HDU	Active
QMH01	Queen Margaret Hospital ICU closed in 2012	Inactive
QMH02	Queen Margaret Hospital Surgical HDU closed in 2012	Inactive
QMH03	Queen Margaret Hospital Medical HDU closed in 2012	Inactive
QMH04	Queen Margaret Hospital Renal HDU closed in 2012	Inactive
RAH01	Royal Alexandra Hospital ICU	Active
RAH02	Royal Alexandra Hospital Surgical HDU	Active
RGM01	Raigmore Hospital ICU	Active
RGM02	Raigmore Hospital Medical HDU	Active
RGM03	Raigmore Hospital Surgical HDU	Active
RIE01	RI Edinburgh ICU/HDU	Active
RIE02	RI Edinburgh HDU	Active
RIE03	RI Edinburgh Renal HDU	Active
RIE04	RI Edinburgh Transplant HDU	Active
RIE05	RI Edinburgh Vascular (level 1)	Active
RIE07	RI Edinburgh Cardiothoracic	Active
RIE08	RI Edinburgh Cardiothoracic	Active
QEU01	Queen Elizabeth University Hospital ICU added in 2015	Active
QEU02	Queen Elizabeth University Hospital HDU Unit 1 added in 2015	Active
QEU03	Queen Elizabeth University Hospital HDU unit 2 added in 2015	Active
QEU04	Queen Elizabeth University Hospital HDU Unit 3 added in 2015	Active
QEU05	Queen Elizabeth University Hospital Medical HDU added in 2015	Active
QEU06	Queen Elizabeth University Hospital Obstetrics HDU added in 2015	Active
SGH01	Southern General Hospital ICU closed 2015	Inactive
SGH02	Southern General Hospital Surgical HDU closed 2015	Inactive
SGH03	Southern General Hospital Neuro ICU	Active
SGH04	Southern General Hospital Neuro HDU	Active
SJH01	St John's Hospital, Livingston added in 2014	Active
SRI01	Stirling Royal Infirmary ICU closed before 2014	Inactive
SRI02	Stirling Royal Infirmary HDU closed before 2014	Inactive
VHK02	Victoria Hospital, Kirkcaldy Medical HDU closed before 2014	Inactive
VIG01	Victoria Infirmary ICU	Inactive
VIG02	Victoria Infirmary Surgical HDU	Inactive
WGH01	WGH, Edinburgh ICU/HDU	Active
WGH03	WGH, Edinburgh Surgical(Level 1)	Active
WGH04	WGH, Edinburgh Neuro HDU	Active
WGH05	WGH, Edinburgh Level 1 Neuro HDU	Active
WIG01	Western Infirmary ICU	Inactive
WIG02	Western Infirmary HDU	inactive
WIH01	Western Isles Hospital Stornoway added in 2014	Active
WSH01	Wishaw General Hospital ICU	Active
WSH02	Wishaw Surgical HDU	Active
WSH03	Wishaw Medical HDU	Active

Appendix 6 – LAC Guidance

AIS dictionary

Dictionary Guidance – 2005 (updated 2008) - Please use the additional notes (bold boxes before some sections) provided in the dictionary. These sections give advice ie. Any changes required to regions etc. By following this guidance will help reduce validations ie. where codes and regions don't match.

What are the benefits?

·   Consistent and accurate selection of codes/scores

·   Used by other reputable audits (ie. TARN – the international standard for coding and scoring trauma injuries)

For updates on the dictionary please regularly check the AIS website - see link: http://www.aaam1.org/ais/AISClarified2012.pdf

For frequently asked questions about coding injuries see 'questions of the month' link: http://www.aaam1.org/faq/ .

Openworld

The STAG audit currently use an external company called Openworld to provide data input services. They manually input all the data you provide on your proforma onto their electronic system and return to us in electronic format. Before sending us your completed proforma, please check:

·   All letters of the alphabet and numbers are clearly written within the boxes.

·   Any information that you have altered is tipexed out and written clearly in box once dried. Openworld will not accept any text or number written above or below the boxes.

   OPENWORLD WILL NOT TRANSCRIBE ANY UNCLEAR INFORMATION AND WILL LEAVE BLANK. THIS WILL UNFORTUNATELY CREATE VALIDATIONS WHEN DATA IS PROCESSED BY CENTRAL OFFICE.

Validations

Add only relevant information to comments section (no identifiable information should be added such as staff names, hospital wards etc.) on proforma. This section is intended to act as a memory jogger for Local Co-ordinators should further clarification be needed.

Brief description of how injury(s) happened
Investigations carried out
Results of investigations
Any information that is out of the ordinary ie. Excessive time spent in ED or deranged observations!

If you state on proforma that Mechanism of Injury = Other or Sport our systems require further information as to what 'Other' is or which 'Sport'. This can be written in comments section.

Validations (continued)

- If patient information you retrieve doesn't make sense (ie. Enter ED date is after Medical speciality in attendance ED) every effort should be made to resolve before returning your proforma to Central office.

- All data recorded onto STAG proforma should be same as in hospital electronic systems/notes – under no circumstances should any data be altered on electronic systems by STAG team.

- Avoid using NFS codes with injury score = 9. They won't be included in the final ISS therefore the full severity of the injuries may not be reflected. Only to be used if exhausted all other options.

- If you need to change any information on forms please amend by tippexing out and re-enter once tippex dries completely – do not score out and add above or below! Openworld will not accept this and will not transcribe this information, therefore leaving blank and creating validations when processed.

Before returning Proforma to Central office please use checklist below:

- Ensure any changes on form are corrected with tippex and are clear to read. ☐

- Date fields are correct and make sense with rest of form. ☐

- The data flows and makes sense (if a patient is seen by medical speciality after leaving ED this will create validations!!!) ☐

- Numbers and letters of the alphabet are clearly written within each box. ☐

- Ensure all Yes/No questions have been answered and not left blank. ☐

PROFORMA NOW COMPLETE AND READY TO BE SENT

Validations (continued)

Validation corrections

Below are examples of validations you might receive from Central Office with preferred responses. When Central Office add the corrections from your response the IT systems require the text to be exact, ie. Upper and lower case need to be exactly as variable; dates/times are required to be set out in same formats as variable. If you have any queries regarding validations ie. Not sure what they are specifically asking for, please give Central office a call for clarification.

Hospital	Batch	Image Number	Form Number	Stag Number	Validation Number	Validation	Local Coordinator Response	Correction
Example A								
X	2013	X	X	X	X	Section 4: Area = 2 (Other ED), but retriaged to resus = 88 (Not applicable). Please specify if the patient was retriaged to resus. If you do not know please enter 99 (Not recorded).	change to 00	
PREFERRED LC RESPONSE								
X	2013	X	X	X	X	Section 4: Area = 2 (Other ED), but retriaged to resus = 88 (Not applicable). Please specify if the patient was retriaged to resus. If you do not know please enter 99 (Not recorded).	Retriaged to Resus=00	Retriage=00

Hospital	Batch	Image Number	Form Number	Stag Number	Validation Number	Validation	Local Coordinator Response	Correction
Example B								
XX	**2013**	**XX**	**XX**	**XX**	**XX**	**Section 2: Mechanism of injury = 05 (Other). Have you provided further details in the comments section?**	**yes information provided in comments**	
PREFERRED LC RESPONSE								
XX	**2013**	**XX**	**XX**	**XX**	**XX**	**Section 2: Mechanism of injury = 05 (Other). Have you provided further details in the comments section?**	**yes, patient caught arm in tractor wheel**	**OtherInjuryMech="caught arm in tractor wheel"**

Hospital	Batch	Image Number	Form Number	Stag Number	Validation Number	Validation	Local Coordinator Response	Correction
Example A								
X	2013	X	X	X	X	Section 6: Total LOS (length of stay) does not equal the number of days between attendance and discharge. Please check LOS, Enter ED Date and DOD.	enter ED 23/02/2013 andplease ammend DOD is 28/02/2013 so total length of stay 05 days	
PREFERRED LC RESPONSE								
X	2013	X	X	X	X	Section 6: Total LOS (length of stay) does not equal the number of days between attendance and discharge. Please check LOS, Enter ED Date and DOD.	Change date entered ED to 23/02/13	EnterDate=DATE.DMY(23,02,13)
						Section 6: Total LOS (length of stay) does not equal the number of days between attendance and discharge. Please check LOS, Enter ED Date and DOD.	change DOD to 28/02/13	DOD=DATE.DMY(28,02,13)
						Section 6: Total LOS (length of stay) does not equal the number of days between attendance and discharge. Please check LOS, Enter ED Date and DOD.	Length of stay should be 05 days	TotalLOS=05

QA process

As of 1st September 2013 the QA process changed. All information (including clinical) collected on proformas is the responsibility of each local co-ordinator. To quality assure the clinical coding; a random sample of completed site proformas will be selected by Central Office to carry out audit. All of section 5 ie Injury Scoring will be matched against what is on electronic systems in each site. These visits will take place at least once a year each year. This process is still being developed and Central office will keep local-co-ordinators informed of progress and any change.

Local Co-ordinators are responsible for:

· Accurately extracting and recording the data from paper/electronic clinical records/systems onto proforma.

· Accurately recording information about all trauma in accordance with the Inclusion/Exclusion criteria

· Accurately recording information in accordance with the Local Audit Co-ordinators Audit Instructions.

LOCAL CO-ORDINATORS ARE ACCOUNTABLE FOR THE PROFORMA THEY SUBMIT TO CENTRAL OFFICE.