



# TARN

THE TRAUMA AUDIT & RESEARCH NETWORK

Sussex Trauma Network

## **CLINICAL REPORT ISSUE I - APRIL 2020**

I: CORE MEASURES FOR ALL PATIENTS

II: THORACIC & ABDOMINAL INJURIES 3+ RIB FRACTURES

PATIENTS IN SHOCK

Created on 07/04/2020

## EXECUTIVE SUMMARY

01 January 2019 to 31 December 2019 core measures

Improvements are shown in **GREEN**, no change in **AMBER** and deteriorations in **RED**. These are the areas you may want to review.

## Data quality and rate of survival

**Case Ascertainment is 69.1 - 74.9% (average 72%)**, this is **below** the target of 80%.  
This represents **a decrease of 20%** compared to previous year.

**Data Accreditation is 90.5%**, this is **below** the target of 95%.  
This represents **no change** compared to previous year.

**The excess rate of survival is better than expected**  
**Ws is 0.84**. 95% confidence intervals are **0.08 to 1.61**

**The survivor /death ratio is 1.46**

The data in this report should be viewed with **extreme caution** (see data reliability index)

n.b. Both Ws and survivor / death ratio are based on a 2 year period

Meets target

Compared to previous year



## CORE section

Compared to TARN average

Compared to previous year

**4% of ISS > 15 patients were seen by a Consultant within 5 minutes of arrival**, this is **below** the TARN average of 41.6% and has **remained at the same level** compared to previous year.



**43% of NICE criteria patients had a CT within 60 minutes**, this is **below** the TARN average of 82% and has **remained at the same level** compared to previous year.  
*50% of the patients that had a CT within 60 minutes arrived between the hours of 08:00 - 20:00.*



**9 days median length of stay for ISS > 15 patients**, this is **within 1 day of** the TARN average of 8 days.  
This represents **an increase of 2 days** compared to previous year.



**Rehabilitation prescription** was completed for **62%** of patients with ISS >8, this is **below** the TARN average of 74%. This has **increased by 14%** compared to previous year.



## THEMED section: Patients with 3+ rib fractures that were given pain relief\*

**255 minutes median time to pain relief**, this is **above** the TARN average of 225 minutes. This represents an increase of 70 minutes compared to previous year.



**26% of patients were given pain relief pre hospital**, this is **below** the TARN average of 28%. This represents an increase of 7% compared to previous year.

**68% of patients were given pain relief in ED**, this is **above** the TARN average of 65%. This represents no change compared to previous year.

## BEST PRACTICE SPOTLIGHT

As agreed by the TARN Audit Committee, the Best Practice Spotlight is changing.

In advance of future reports TARN will approach Trusts or Networks who have shown significant improvement or who are consistently good in key areas, asking them to share information on how they have changed or improved things in this area.

Your Trust or Network may be contacted by TARN and asked to contribute to this feature for future reports.

## Contents

This Report contains the following sections:

1. **CORE** - includes ALL injured patients admitted in the time frames indicated.
2. **Thoracic, Abdominal & Shocked** - includes patients with thoracic injuries, abdominal injuries and those shocked.

**Highlighted sections include only patient data submitted from Trauma Units, so that the information provided is not overshadowed by data from the MTC.**

### Core

- 1 - Data completeness & accreditation of patient data submission
- 2 - Case mix standardised rate of survival for this network
  - Breakdown
  - Charts
- 3 - Age & Injury mechanism
- 4 - ISS & injury mechanism
- 5 - Distribution of patients by ISS & transfer status
- 6 - Number and transfer of patients with head injuries (AIS 3+)
- 7 - Number and transfer of patients with severe head injuries (AIS 3+ head injury and a GCS < 9 or the patient is intubated)
- 8 - Pre-hospital care of patients admitted to Trauma Units
- 9 - Number of patients with a GCS < 9 (pre-hospital or in the ED) and definitive airway management in Trauma Units
- 10 - Most senior doctor attending patients within 5 minutes of arrival in Trauma Units
- 11 - Most senior doctor attending patients within 30 minutes of arrival in Trauma Units
- 12 - Most senior doctor attending patients in the emergency department of Trauma Units
- 13 - Time to CT scanning in Trauma Units
- 14 - Time to first operation in Trauma Units
- 15 - Length of stay in hospital
- 16 - Length of stay in, and readmissions to, critical care
- 17 - Patients receiving tranexamic acid
- 18 - NICE quality standards

### Thoracic, Abdominal & Shocked

- 1 - Thoracic injuries summary information
- 2 - Most senior doctor attending patients with AIS3+ thoracic injuries in the emergency department
- 3 - Time to CT or MRI scan for patients with AIS3+ thoracic injuries
- 4 - Abdominal Injuries summary information
- 5 - Presence & grade of general surgeon in the emergency department for patients with AIS3+ abdominal injuries
- 6 - Time to theatre for patients with AIS3+ abdominal injuries
- 7 - Grade of surgeon / anaesthetist performing the initial operation for patients with AIS3+ abdominal injuries
- 8 - Management of shocked patients
- 9 - Patients receiving tranexamic acid

Some sections may not appear if there is insufficient data

## Glossary

### Explanation of acronyms, abbreviations and other key terms used in this report.

<b>AIS</b>	Abbreviated Injury Scale score. A value between 1 (minor) and 6 (very severe) can be assigned to each injury. TARN currently uses the AIS 2005 system, the most recent available.
<b>BOAST 4</b>	British Orthopaedic Association Standard 4, setting out key markers for care of patients with high energy open lower limb fractures.
<b>Confidence interval</b>	Indicates the precision and possible range of a result. A wide confidence interval indicates the potential for large variation from the measured value because of small sample size. The larger the sample, the smaller the confidence intervals. The smaller the confidence intervals, the more precise the measured value.
<b>Direct admissions</b>	Describes care in the first treating hospital.
<b>ED</b>	Emergency Department.
<b>GCS</b>	Glasgow Coma Scale. A measure of consciousness ranging from 3, indicating complete unconsciousness, to 15, indicating a state of normal alertness. GCS is composed of eye, verbal and motor scores.
<b>HES / HIPE / PEDW</b>	Hospital Episode Statistics / Hospital In-Patient Enquiry Scheme / Patient Episode Database Wales. Data collected in hospitals on all admissions. This data is used by TARN to produce an expected number of TARN eligible patients.
<b>Interquartile range</b>	Range of values within a selection of data excluding the top 25% and bottom 25%. This filters out unusually high and unusually low values and shows where the most significant values in the data range are concentrated.
<b>Intubation</b>	The insertion of a flexible plastic tube into the trachea to support a patient's airway.
<b>ISS</b>	Injury Severity Score. A score ranging from 1, indicating minor injuries to 75, indicating very severe injuries that are very likely to result in death. An ISS between 9 and 15 is considered moderate. An ISS of 16 or more is considered severe. ISS is calculated using the Abbreviated Injury Scale (AIS).
<b>Median</b>	The middle value in a range. Less easily distorted by very high or very low values than other aggregation methods, such as the mean.
<b>NICE</b>	National Institute for Health and Care Excellence. This organisation sets standards for patient care including for severe head injury, defined here as patients with any head injury and a Glasgow Coma Score (GCS) of less than 13.
<b>Paediatric</b>	Patients under 16 years of age at time of admission.
<b>RTC</b>	Road traffic collision.
<b>STR</b>	Specialist Trainee.
<b>TARN fraction</b>	The proportion of TARN patients in each PS band. Used as a weight to standardise hospital outcome performance according to case mix.
<b>Thoracotomy</b>	A surgical incision made into the pleural space of the chest.
<b>W</b>	Variable showing hospital outcome performance. W represents excess deaths or survivors per 100 patients. This is calculated using observed and expected survivors and the total number of patients in the hospital's rate of survival dataset. See rate of survival breakdown section of report for full formula.
<b>Ws</b>	Excess deaths or survivors (W) standardised according to hospital case mix using the TARN fraction. A hospital with the same case mix as the overall TARN population will have identical W and Ws values. A hospital whose case mix differs from the overall TARN population will have different W and Ws values.



# TARN

THE TRAUMA AUDIT & RESEARCH NETWORK

Sussex Trauma Network

## SECTION I

### CORE MEASURES FOR ALL PATIENTS



## Case Ascertainment & Accreditation

If case ascertainment is low then the analysis in the rest of the report may not be reflective of true practice.

Trust / Hospital	01 January 2019 to 31 December 2019				01 January 2018 to 31 December 2018			
	N	E	C (%)	A (%)	N	E	C (%)	A (%)
<b>Brighton and Sussex University Hospitals NHS Trust</b>	<b>928</b>	<b>1236 - 1354</b>	<b>68.5 - 75.1</b>	<b>93.6</b>	<b>1063</b>	<b>1236 - 1354</b>	<b>78.5 - 86</b>	<b>94.2</b>
Princess Royal Haywards Heath	125	221	56.7	94	116	221	52.6	92.8
Royal Sussex County Hospital	803	849	94.6	94	947	849	100+	94.4
<b>East Sussex Healthcare NHS Trust</b>	<b>377</b>	<b>439 - 522</b>	<b>72.2 - 85.8</b>	<b>90.7</b>	<b>604</b>	<b>439 - 522</b>	<b>100+</b>	<b>89.8</b>
Conquest Hospital	259	324 - 385	67.3 - 79.9	91	419	324 - 385	100+	90.3
Eastbourne District General Hospital	118	115 - 137	86.1 - 100+	90	185	115 - 137	100+	88.6
<b>Western Sussex Hospitals NHS Trust</b>	<b>418</b>	<b>626 - 734</b>	<b>56.9 - 66.8</b>	<b>83.3</b>	<b>534</b>	<b>626 - 734</b>	<b>72.8 - 85.3</b>	<b>82.5</b>
St. Richards Hospital	195	297 - 353	55.2 - 65.6	83	237	297 - 353	67.1 - 79.8	83.1
Worthing Hospital	223	329 - 381	58.5 - 67.8	84	297	329 - 381	78 - 90.3	82.0

**N** The number of approved submissions for the period

**E** The expected number of submissions for the period (from HES / HIPE / PEDW)

**C** The case ascertainment % for the period

**A** The accreditation % for the period

### HES / HIPE / PEDW

Hospital Episode Statistics / Hospital In-Patient Enquiry Scheme / Patient Episode Database Wales is the data collected in hospitals on all admissions. The TARN inclusion criteria is applied to this data to derive the expected number of cases for each site. Work with TARN participating sites has shown there is some over-estimation of cases in the results due to the variation in ICD10 coding.

The HES data used for the case ascertainment calculation is the same as the previous report. A notice will be added to the TARN website when the new HES data has been received.

### Case ascertainment

This is displayed as a percentage range and represents the number of patients submitted to TARN compared to the number of patients expected based on the HES dataset. The range represents the variance seen in the accuracy of the HES data. A single value is shown for hospitals that have provided feedback to TARN about their denominator.

### Accreditation

This is the proportion of key fields used in this report that are filled in for each patient submitted to TARN.

## Sussex Trauma Network Data reliability index -

Site	n	Case ascertainment	Survivor:Death ratio
Conquest Hospital	678	67.3 - 79.9	1.49
Eastbourne District General Hospital	303	86.1 - 100+	2.24
Princess Royal Haywards Heath	241	56.7	4.53
Royal Sussex County Hospital	1,750	94.6	1.13
St. Richards Hospital	432	55.2 - 65.6	1.75
Worthing Hospital	520	58.5 - 67.8	2.00

### Overall

Case ascertainment: **69.1 - 74.9 (average 72)**

Survivor / death ratio: **1.46**

The data in this report should be viewed with **extreme caution**.

### Data reliability

Data reliability is measured using case ascertainment (if this is a range, the average of the two figures is used) and the survivor / death ratio for the report period. Survivor / death ratio is calculated as follows:

$$\frac{\text{survivors submitted} \div \text{expected number of survivors (HES)}}{\text{deaths submitted} \div \text{expected number of deaths (HES)}}$$

This ratio should be as close to 1 as possible. If it is above 1 it means proportionally more survivors are being submitted than deaths and if it is below 1 then proportionally more deaths are being submitted than survivors.

### Data confidence levels

**Confidence:** Case ascertainment **80+** and; survivor / death ratio between **0.8** and **1.2**

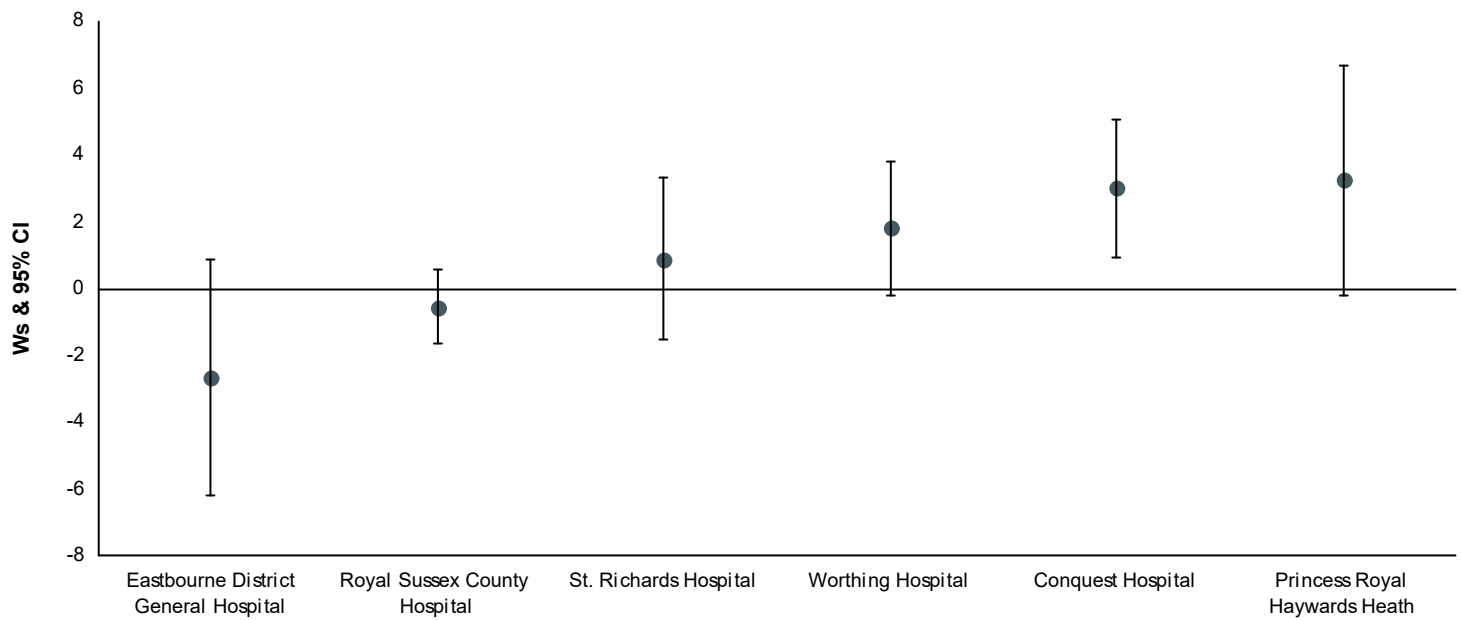
**Caution:** Case ascertainment **80+** and; survivor / death ratio **< 0.8** or **> 1.2**

**Extreme caution:** Case ascertainment **< 80**

## Sussex Trauma Network

Case mix standardised excess rate of survival - Ws  
01 January 2018 to 31 December 2019

Site	n	WS	95% Confidence interval
Conquest Hospital	616	3.02	0.95 to 5.08
Eastbourne District General Hospital	179	-2.65	-6.18 to 0.88
Princess Royal Haywards Heath	123	3.26	-0.18 to 6.70
Royal Sussex County Hospital	1453	-0.53	-1.66 to 0.59
St. Richards Hospital	403	0.89	-1.53 to 3.30
Worthing Hospital	480	1.82	-0.19 to 3.82





## Sussex Trauma Network

## Case mix standardised excess rate of survival (Ws) & Ws Breakdown

### 01 January 2018 to 31 December 2019

Patients who died at or were discharged from this hospital are eligible for Ws calculations. Patients who were transferred out from this hospital and not re-admitted are excluded.

See the appendix for a detailed explanation of the Ps19 model.

#### Outcome at 30 days or discharge

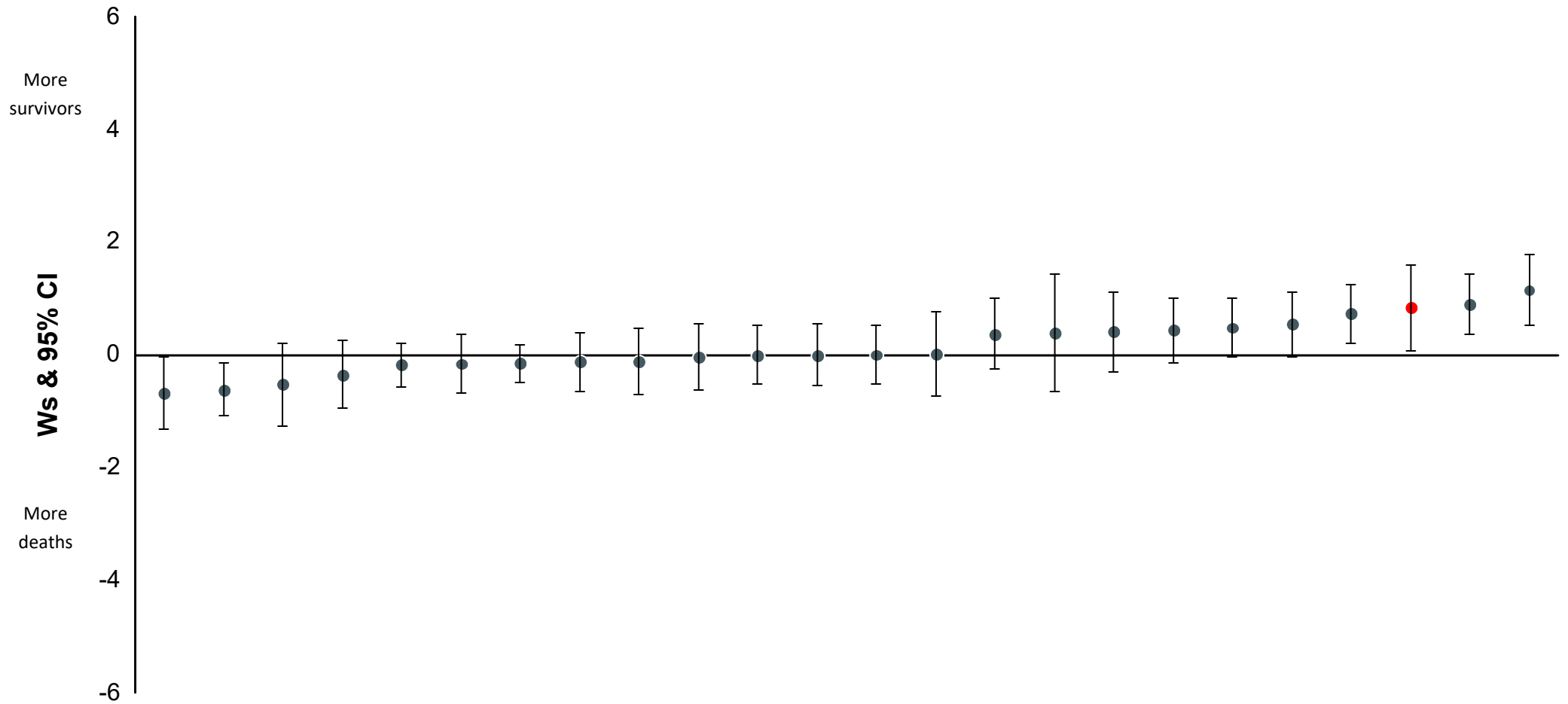
PS Band	Number in band	Observed Survivors	Expected Survivors	Difference*	TARN fraction	Ws	95% confidence interval
95 - 100	1956	1930	1922.52	0.38	0.67	0.26	
90 - 95	645	597	599.93	-0.45	0.16	-0.07	
80 - 90	367	333	317.19	4.31	0.08	0.36	
65 - 80	165	123	122.81	0.11	0.04	0.00	
45 - 65	52	32	29.65	4.53	0.02	0.10	
25 - 45	32	13	11.69	4.10	0.02	0.06	
0 - 25	19	4	2.28	9.07	0.01	0.13	
<i>Total</i>	<i>3254</i>	<i>3049</i>	<i>3006.05</i>			<b>0.84</b>	<b>0.08 to 1.61</b>

Sussex Trauma Network

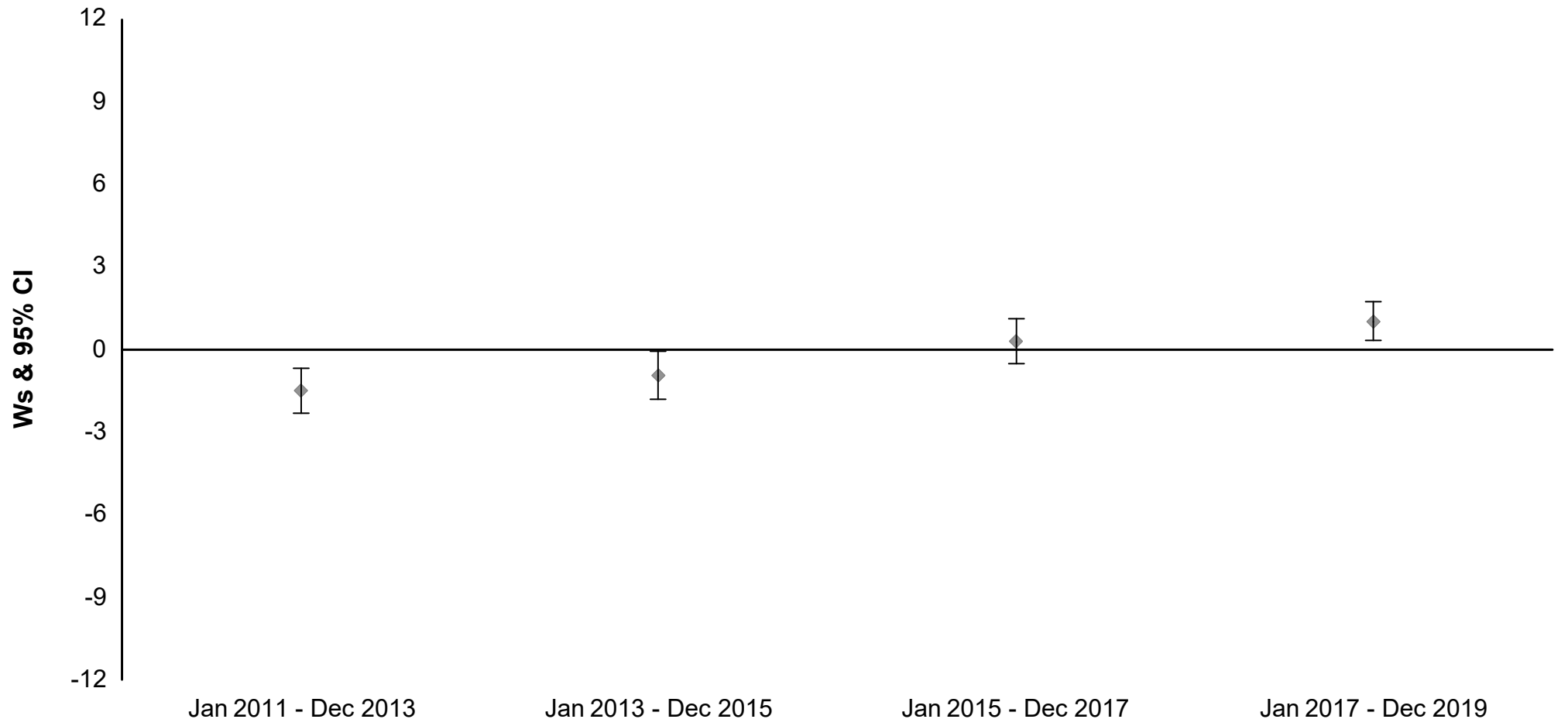
### Trauma Network Comparative Outcome Analysis - 01 January 2018 to 31 December 2019

Outcome at 30 days or discharge

Sussex Trauma Network is highlighted



Sussex Trauma Network  
Rolling Outcome Analysis  
Outcome at 30 days or discharge

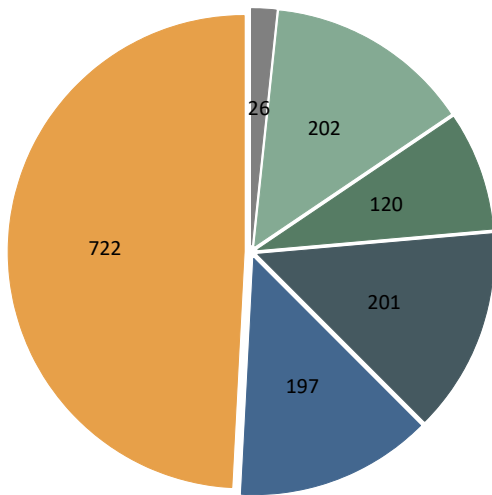


## Sussex Trauma Network Age & Injury Mechanism

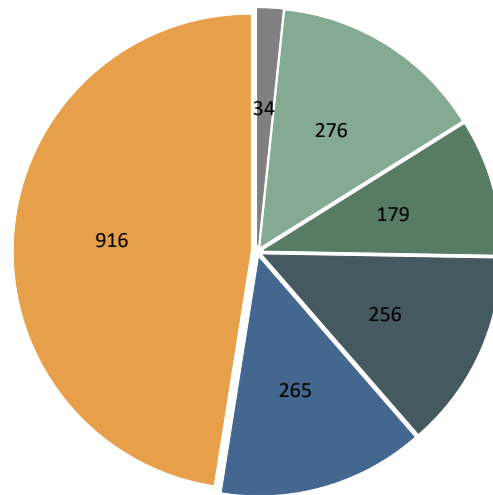
(row percentages)

Mechanism	Under 16	16 to 44	45 to 54	55 to 64	65 to 74	75 and over	Total
<b>01 January 2019 to 31 December 2019</b>							
RTC	7 (2.8%)	91 (36.1%)	35 (13.9%)	39 (15.5%)	43 (17.1%)	37 (14.7%)	252
Fall < 2m	14 (1.3%)	38 (3.7%)	47 (4.5%)	131 (12.6%)	137 (13.2%)	671 (64.6%)	1038
Fall > 2m	2 (2.0%)	33 (32.4%)	22 (21.6%)	18 (17.6%)	14 (13.7%)	13 (12.7%)	102
Shooting / Stabbing	0 (0.0%)	10 (62.5%)	3 (18.8%)	3 (18.8%)	0 (0.0%)	0 (0.0%)	16
Other	3 (5.0%)	30 (50.0%)	13 (21.7%)	10 (16.7%)	3 (5.0%)	1 (1.7%)	60
<b>Total</b>	<b>26 (1.8%)</b>	<b>202 (13.8%)</b>	<b>120 (8.2%)</b>	<b>201 (13.7%)</b>	<b>197 (13.4%)</b>	<b>722 (49.2%)</b>	<b>1468</b>
<b>TARN average</b>	<b>4.9%</b>	<b>23.1%</b>	<b>9.1%</b>	<b>11.4%</b>	<b>10.4%</b>	<b>41%</b>	

<b>01 January 2018 to 31 December 2018</b>							
RTC	10 (3.3%)	127 (41.8%)	53 (17.4%)	37 (12.2%)	31 (10.2%)	46 (15.1%)	304
Fall < 2m	14 (1.1%)	47 (3.5%)	80 (6.0%)	177 (13.3%)	196 (14.7%)	815 (61.3%)	1329
Fall > 2m	1 (0.5%)	46 (24.3%)	26 (13.8%)	33 (17.5%)	34 (18.0%)	49 (25.9%)	189
Shooting / Stabbing	0 (0.0%)	15 (65.2%)	4 (17.4%)	1 (4.3%)	2 (8.7%)	1 (4.3%)	23
Other	9 (11.1%)	41 (50.6%)	16 (19.8%)	8 (9.9%)	2 (2.5%)	5 (6.2%)	81
<b>Total</b>	<b>34 (1.8%)</b>	<b>276 (14.3%)</b>	<b>179 (9.3%)</b>	<b>256 (13.3%)</b>	<b>265 (13.8%)</b>	<b>916 (47.6%)</b>	<b>1926</b>
<b>TARN average</b>	<b>4.1%</b>	<b>24%</b>	<b>8.9%</b>	<b>12.2%</b>	<b>11.2%</b>	<b>39.6%</b>	



01 January 2019 to 31 December 2019



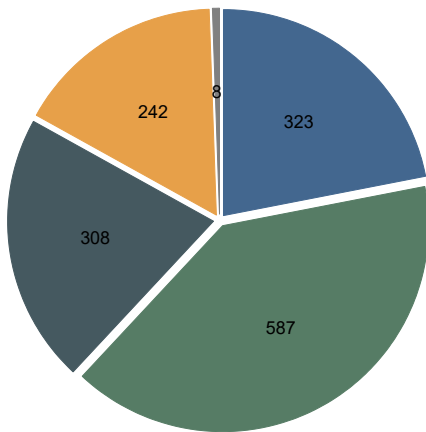
01 January 2018 to 31 December 2018

Under 16
  16 to 44
  45 to 54
  55 to 64
  65 to 74
  75 and over

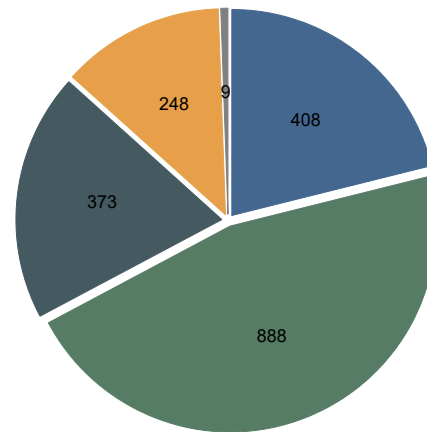
Sussex Trauma Network  
**ISS & Injury Mechanism**  
 (row percentages)

Mechanism	1 - 8	9 - 15	16 - 24	25 - 45	>45	Total	>15
<b>01 January 2019 to 31 December 2019</b>							
RTC	46 (18.3%)	85 (33.7%)	64 (25.4%)	52 (20.6%)	5 (2.0%)	252	121 (48.0%)
Fall < 2m	247 (23.8%)	435 (41.9%)	206 (19.8%)	150 (14.5%)	0 (0.0%)	1038	356 (34.3%)
Fall > 2m	23 (22.5%)	38 (37.3%)	22 (21.6%)	17 (16.7%)	2 (2.0%)	102	41 (40.2%)
Shooting / Stabbing	1 (6.3%)	8 (50.0%)	5 (31.3%)	2 (12.5%)	0 (0.0%)	16	7 (43.8%)
Other	6 (10.0%)	21 (35.0%)	11 (18.3%)	21 (35.0%)	1 (1.7%)	60	33 (55.0%)
<b>Total</b>	<b>323 (22.0%)</b>	<b>587 (40.0%)</b>	<b>308 (21.0%)</b>	<b>242 (16.5%)</b>	<b>8 (0.5%)</b>	<b>1468</b>	<b>558 (38.0%)</b>
<b>TARN average</b>	<b>15.9%</b>	<b>45.1%</b>	<b>18.6%</b>	<b>19.7%</b>	<b>0.6%</b>		<b>38.9%</b>

<b>01 January 2018 to 31 December 2018</b>							
RTC	42 (13.8%)	136 (44.7%)	63 (20.7%)	57 (18.8%)	6 (2.0%)	304	126 (41.4%)
Fall < 2m	317 (23.9%)	643 (48.4%)	240 (18.1%)	129 (9.7%)	0 (0.0%)	1329	369 (27.8%)
Fall > 2m	40 (21.2%)	62 (32.8%)	47 (24.9%)	37 (19.6%)	3 (1.6%)	189	87 (46.0%)
Shooting / Stabbing	2 (8.7%)	13 (56.5%)	5 (21.7%)	3 (13.0%)	0 (0.0%)	23	8 (34.8%)
Other	7 (8.6%)	34 (42.0%)	18 (22.2%)	22 (27.2%)	0 (0.0%)	81	40 (49.4%)
<b>Total</b>	<b>408 (21.2%)</b>	<b>888 (46.1%)</b>	<b>373 (19.4%)</b>	<b>248 (12.9%)</b>	<b>9 (0.5%)</b>	<b>1926</b>	<b>630 (32.7%)</b>
<b>TARN average</b>	<b>15.5%</b>	<b>44.9%</b>	<b>18.7%</b>	<b>20.2%</b>	<b>0.6%</b>		<b>39.6%</b>



01 January 2019 to 31 December 2019



01 January 2018 to 31 December 2018

■ 1 - 8 ■ 9 - 15 ■ 16 - 24 ■ 25 - 45 ■ >45

## Distribution of patients by transfer status

01 January 2019 to 31 December 2019

Hospital	All patients				ISS > 15 patients			
	n	No transfer	Transfer In	Transfer Out	n	No transfer	Transfer In	Transfer Out
Conquest Hospital	259	175 (67.6%)	50 (19.3%)	34 (13.1%)	84	44 (52.4%)	17 (20.2%)	23 (27.4%)
Eastbourne District General Hospital	118	56 (47.5%)	10 (8.5%)	52 (44.1%)	57	26 (45.6%)	8 (14.0%)	23 (40.4%)
Princess Royal Haywards Heath	125	31 (24.8%)	37 (29.6%)	57 (45.6%)	40	10 (25.0%)	6 (15.0%)	24 (60.0%)
Royal Sussex County Hospital	803	531 (66.1%)	171 (21.3%)	101 (12.6%)	356	218 (61.2%)	90 (25.3%)	48 (13.5%)
St. Richards Hospital	195	150 (76.9%)	14 (7.2%)	31 (15.9%)	61	37 (60.7%)	9 (14.8%)	15 (24.6%)
Worthing Hospital	223	181 (81.2%)	9 (4.0%)	33 (14.8%)	81	53 (65.4%)	7 (8.6%)	21 (25.9%)
<b>Total</b>	<b>1723</b>	<b>1124 (65.2%)</b>	<b>291 (16.9%)</b>	<b>308 (17.9%)</b>	<b>679</b>	<b>388 (57.1%)</b>	<b>137 (20.2%)</b>	<b>154 (22.7%)</b>

01 January 2018 to 31 December 2018

Hospital	All patients				ISS > 15 patients			
	n	No transfer	Transfer In	Transfer Out	n	No transfer	Transfer In	Transfer Out
Conquest Hospital	419	278 (66.3%)	80 (19.1%)	61 (14.6%)	116	57 (49.1%)	27 (23.3%)	32 (27.6%)
Eastbourne District General Hospital	185	92 (49.7%)	12 (6.5%)	81 (43.8%)	70	33 (47.1%)	9 (12.9%)	28 (40.0%)
Princess Royal Haywards Heath	116	30 (25.9%)	25 (21.6%)	61 (52.6%)	32	8 (25.0%)	4 (12.5%)	20 (62.5%)
Royal Sussex County Hospital	947	659 (69.6%)	190 (20.1%)	98 (10.3%)	396	268 (67.7%)	80 (20.2%)	48 (12.1%)
St. Richards Hospital	237	215 (90.7%)	12 (5.1%)	10 (4.2%)	64	49 (76.6%)	8 (12.5%)	7 (10.9%)
Worthing Hospital	297	263 (88.6%)	16 (5.4%)	18 (6.1%)	63	51 (81.0%)	6 (9.5%)	6 (9.5%)
<b>Total</b>	<b>2201</b>	<b>1537 (69.8%)</b>	<b>335 (15.2%)</b>	<b>329 (14.9%)</b>	<b>741</b>	<b>466 (62.9%)</b>	<b>134 (18.1%)</b>	<b>141 (19.0%)</b>

## Sussex Trauma Network Distribution of patients by ISS

01 January 2019 to 31 December 2019

Hospital	1 - 8	9 - 15	16 - 24	25 - 45	>45	Total	>15
Conquest Hospital	52 (20.1%)	123 (47.5%)	42 (16.2%)	41 (15.8%)	1 (0.4%)	259	84 (32.4%)
Eastbourne District General Hospital	29 (24.6%)	32 (27.1%)	27 (22.9%)	30 (25.4%)	0 (0.0%)	118	57 (48.3%)
Princess Royal Haywards Heath	23 (18.4%)	62 (49.6%)	25 (20.0%)	15 (12.0%)	0 (0.0%)	125	40 (32.0%)
Royal Sussex County Hospital	141 (17.6%)	306 (38.1%)	184 (22.9%)	164 (20.4%)	8 (1.0%)	803	356 (44.3%)
St. Richards Hospital	52 (26.7%)	82 (42.1%)	32 (16.4%)	27 (13.8%)	2 (1.0%)	195	61 (31.3%)
Worthing Hospital	63 (28.3%)	79 (35.4%)	50 (22.4%)	31 (13.9%)	0 (0.0%)	223	81 (36.3%)
<b>Total</b>	<b>360 (20.9%)</b>	<b>684 (39.7%)</b>	<b>360 (20.9%)</b>	<b>308 (17.9%)</b>	<b>11 (0.6%)</b>	<b>1723</b>	<b>679 (39.4%)</b>

01 January 2018 to 31 December 2018

Hospital	1 - 8	9 - 15	16 - 24	25 - 45	>45	Total	>15
Conquest Hospital	72 (17.2%)	231 (55.1%)	69 (16.5%)	46 (11.0%)	1 (0.2%)	419	116 (27.7%)
Eastbourne District General Hospital	43 (23.2%)	72 (38.9%)	46 (24.9%)	24 (13.0%)	0 (0.0%)	185	70 (37.8%)
Princess Royal Haywards Heath	16 (13.8%)	68 (58.6%)	21 (18.1%)	10 (8.6%)	1 (0.9%)	116	32 (27.6%)
Royal Sussex County Hospital	162 (17.1%)	389 (41.1%)	206 (21.8%)	183 (19.3%)	7 (0.7%)	947	396 (41.8%)
St. Richards Hospital	63 (26.6%)	110 (46.4%)	45 (19.0%)	19 (8.0%)	0 (0.0%)	237	64 (27.0%)
Worthing Hospital	77 (25.9%)	157 (52.9%)	39 (13.1%)	23 (7.7%)	1 (0.3%)	297	63 (21.2%)
<b>Total</b>	<b>433 (19.7%)</b>	<b>1027 (46.7%)</b>	<b>426 (19.4%)</b>	<b>305 (13.9%)</b>	<b>10 (0.5%)</b>	<b>2201</b>	<b>741 (33.7%)</b>

## Sussex Trauma Network

**Patients with head injuries**

Defined as patients with an AIS3+ head injury.

01 January 2019 to 31 December 2019

Hospital	n	Direct admissions from scene of incident			
		No transfer	Died within 12 hours of arrival	Transferred out	Transferred in
Conquest Hospital	71	40	0	15	16
Eastbourne District General Hospital	57	28	0	23	6
Princess Royal Haywards Heath	28	9	0	16	3
Royal Sussex County Hospital	224	141	0	17	66
St. Richards Hospital	52	38	0	11	3
Worthing Hospital	68	48	0	19	1

01 January 2018 to 31 December 2018

Hospital	n	Direct admissions from scene of incident			
		No transfer	Died within 12 hours of arrival	Transferred out	Transferred in
Conquest Hospital	99	47	0	27	25
Eastbourne District General Hospital	76	39	0	30	7
Princess Royal Haywards Heath	27	12	0	11	4
Royal Sussex County Hospital	281	195	5	28	58
St. Richards Hospital	44	40	0	3	1
Worthing Hospital	62	54	0	4	4



## Sussex Trauma Network

**Patients with severe head injuries**

Defined as patients with an AIS3+ head injury and a GCS &lt; 9 or a recording of intubation.

01 January 2019 to 31 December 2019

Hospital	n	Direct admissions from scene of incident			
		No transfer	Died within 12 hours of arrival	Transferred out	Transferred in
Conquest Hospital	5	1	0	2	2
Eastbourne District General Hospital	4	1	0	0	3
Princess Royal Haywards Heath	2	0	0	0	2
Royal Sussex County Hospital	43	25	0	10	8
St. Richards Hospital	2	0	0	1	1
Worthing Hospital	2	0	0	2	0

01 January 2018 to 31 December 2018

Hospital	n	Direct admissions from scene of incident			
		No transfer	Died within 12 hours of arrival	Transferred out	Transferred in
Conquest Hospital	9	2	0	4	3
Eastbourne District General Hospital	2	2	0	0	0
Princess Royal Haywards Heath	2	0	0	0	2
Royal Sussex County Hospital	56	40	5	9	7
St. Richards Hospital	1	1	0	0	0
Worthing Hospital	5	3	0	1	1

## Sussex Trauma Network

## Pre-hospital care

Figures in blue represent the TARN average

## Trauma Unit data only

## Direct admissions, 01 January 2019 to 31 December 2019

Number of patients: 800

Number of patients with pre-hospital data: 505

## Level of personnel on scene

## Mode of transport to hospital

Doctor	Paramedic	Not recorded
0 (0.0%)	504 (99.8%)	1 (0.2%)
2.2%	95.6%	2.2%

Ambulance	Helicopter	Self-presented	Not recorded*
628 (78.5%)	1 (0.1%)	171 (21.4%)	0 (0.0%)
79.8%	1.4%	18.8%	0.0%

## Direct admissions, 01 January 2018 to 31 December 2018

Number of patients: 1109

Number of patients with pre-hospital data: 774

## Level of personnel on scene

## Mode of transport to hospital

Doctor	Paramedic	Not recorded
0 (0.0%)	771 (99.6%)	3 (0.4%)
3.9%	93.7%	2.4%

Ambulance	Helicopter	Self-presented	Not recorded*
905 (81.6%)	2 (0.2%)	202 (18.2%)	0 (0.0%)
79.3%	2.3%	18.5%	0.0%

\*Mode of transport not recorded may include patients that self-presented.

## Patients with GCS &lt; 9 pre-hospital or in the ED and definitive airway management pre-hospital or in the ED

## Trauma Unit data only

n	Definitive airway management	Pre-hospital	ED	Date & time recorded	Recorded within 30 mins of incident	Median time from incident (hours)
<b>Direct admissions, 01 January 2019 to 31 December 2019</b>						
7	3 (42.9%)	0 (0.0%)	3 (42.9%)	2 (66.7%)	0 (0.0%)	4.4
	59.1%	13.8%	45.3%	86.1%	0.1%	1.50
<b>Direct admissions, 01 January 2018 to 31 December 2018</b>						
11	2 (18.2%)	2 (18.2%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	
	62.8%	18.4%	44.4%	79.6%	0.6%	1.47

Definitive airway management is defined as the management of an airway using intubation, tracheostomy or cricothyroidotomy.

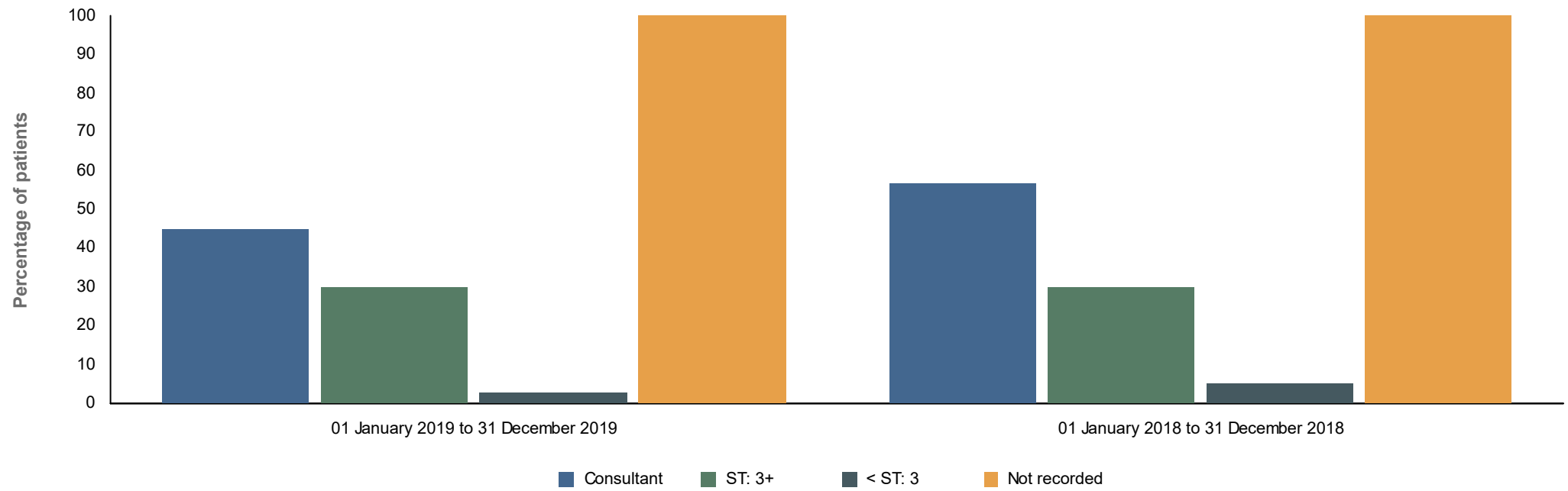
Sussex Trauma Network

**Most senior doctor seeing patients within 5 minutes of arrival**

All patients directly admitted, all specialities

Trauma Unit data only

Category	Total	Consultant	TARN average consultant	ST: 3+	< ST: 3	Not recorded
<b>01 January 2019 to 31 December 2019</b>						
All patients	800	32 (4.0%)	<b>27%</b>	25 (3.1%)	8 (1.0%)	735 (91.9%)
ISS > 15 patients	276	12 (4.3%)	<b>41.6%</b>	10 (3.6%)	2 (0.7%)	252 (91.3%)
Trauma team activated	60	21 (35.0%)	<b>79.2%</b>	13 (21.7%)	0 (0.0%)	26 (43.3%)
Trauma team not activated	740	11 (1.5%)	<b>8.4%</b>	12 (1.6%)	8 (1.1%)	709 (95.8%)
<b>01 January 2018 to 31 December 2018</b>						
All patients	1109	44 (4.0%)	<b>25.4%</b>	33 (3.0%)	10 (0.9%)	1022 (92.2%)
ISS > 15 patients	291	18 (6.2%)	<b>39.7%</b>	14 (4.8%)	2 (0.7%)	257 (88.3%)
Trauma team activated	79	36 (45.6%)	<b>76.2%</b>	16 (20.3%)	2 (2.5%)	25 (31.6%)
Trauma team not activated	1030	8 (0.8%)	<b>7.9%</b>	17 (1.7%)	8 (0.8%)	997 (96.8%)



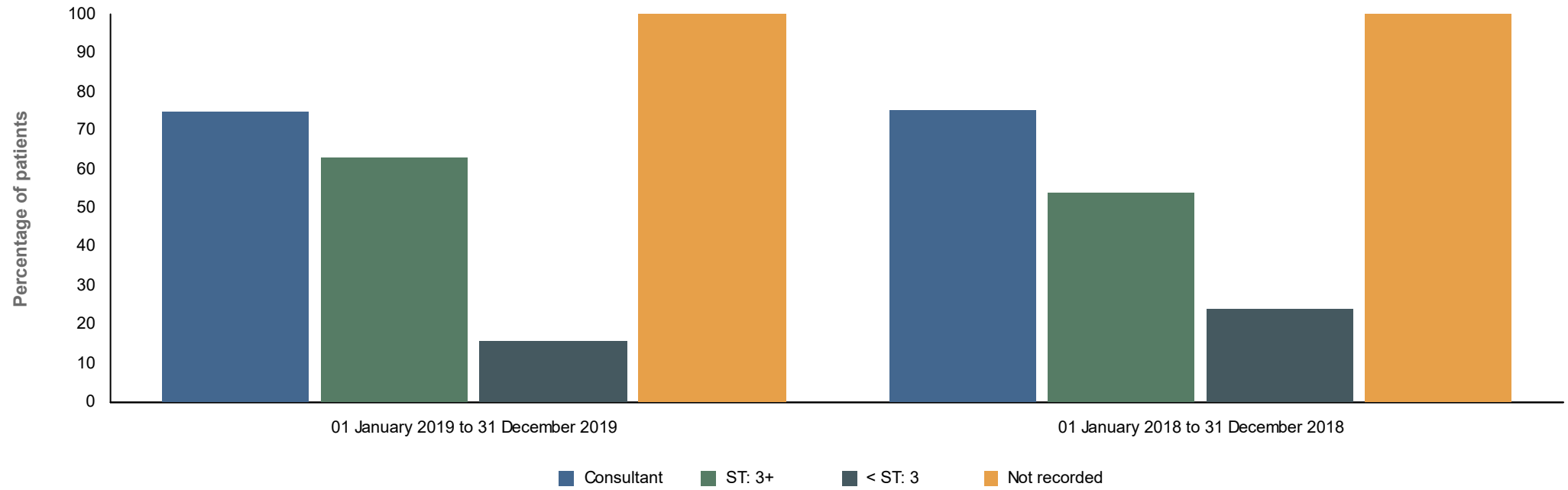
Sussex Trauma Network

**Most senior doctor seeing patients within 30 minutes of arrival**

All patients directly admitted, all specialities

Trauma Unit data only

Category	Total	Consultant	TARN average consultant	ST: 3+	< ST: 3	Not recorded
<b>01 January 2019 to 31 December 2019</b>						
All patients	800	73 (9.1%)	<b>31.4%</b>	87 (10.9%)	38 (4.8%)	602 (75.3%)
ISS > 15 patients	276	27 (9.8%)	<b>45.5%</b>	35 (12.7%)	11 (4.0%)	203 (73.6%)
Trauma team activated	60	30 (50.0%)	<b>82.4%</b>	18 (30.0%)	1 (1.7%)	11 (18.3%)
Trauma team not activated	740	43 (5.8%)	<b>13.2%</b>	69 (9.3%)	37 (5.0%)	591 (79.9%)
<b>01 January 2018 to 31 December 2018</b>						
All patients	1109	83 (7.5%)	<b>29.9%</b>	101 (9.1%)	67 (6.0%)	858 (77.4%)
ISS > 15 patients	291	27 (9.3%)	<b>43.8%</b>	30 (10.3%)	20 (6.9%)	214 (73.5%)
Trauma team activated	79	43 (54.4%)	<b>79.5%</b>	21 (26.6%)	4 (5.1%)	11 (13.9%)
Trauma team not activated	1030	40 (3.9%)	<b>12.8%</b>	80 (7.8%)	63 (6.1%)	847 (82.2%)



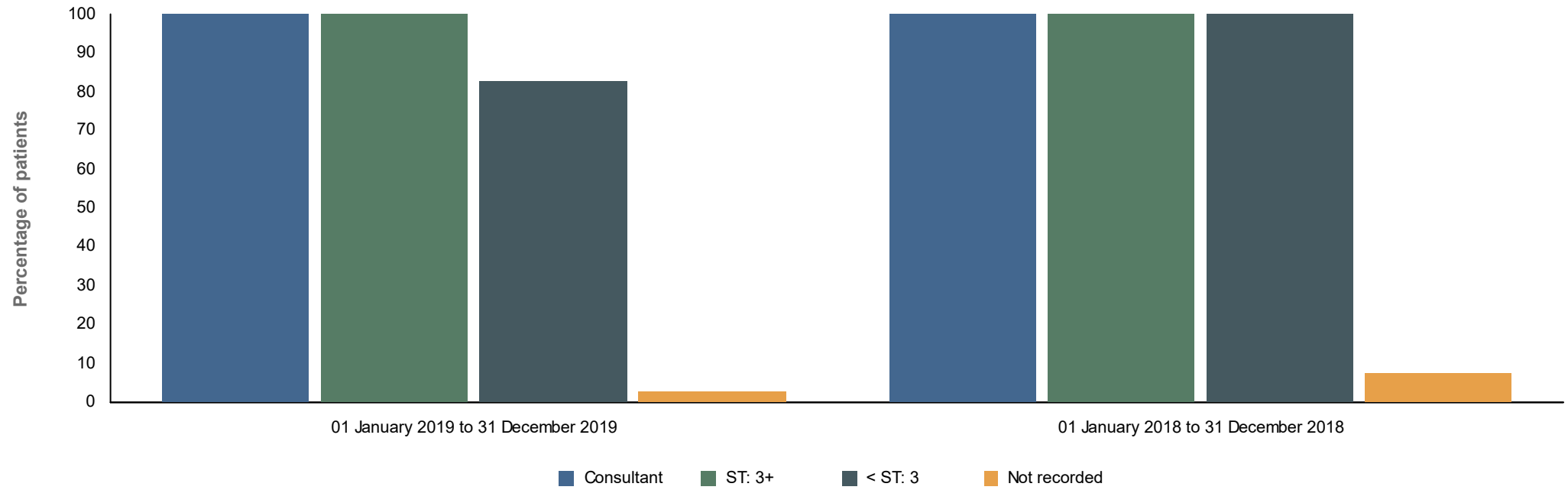
Sussex Trauma Network

**Most senior doctor seeing patients in the Emergency Department**

All patients directly admitted to the ED, all specialities

Trauma Unit data only

Category	Total	Consultant	TARN average consultant	ST: 3+	< ST: 3	Not recorded
<b>01 January 2019 to 31 December 2019</b>						
All patients	785	177 (22.5%)	<b>47.6%</b>	390 (49.7%)	210 (26.8%)	8 (1.0%)
ISS > 15 patients	271	64 (23.6%)	<b>60.1%</b>	137 (50.6%)	68 (25.1%)	2 (0.7%)
Trauma team activated	60	38 (63.3%)	<b>85.9%</b>	21 (35.0%)	1 (1.7%)	0 (0.0%)
Trauma team not activated	725	139 (19.2%)	<b>33.6%</b>	369 (50.9%)	209 (28.8%)	8 (1.1%)
<b>01 January 2018 to 31 December 2018</b>						
All patients	1083	200 (18.5%)	<b>46.7%</b>	440 (40.6%)	425 (39.2%)	18 (1.7%)
ISS > 15 patients	279	58 (20.8%)	<b>59.3%</b>	111 (39.8%)	103 (36.9%)	7 (2.5%)
Trauma team activated	79	45 (57.0%)	<b>86.9%</b>	26 (32.9%)	7 (8.9%)	1 (1.3%)
Trauma team not activated	1004	155 (15.4%)	<b>32.5%</b>	414 (41.2%)	418 (41.6%)	17 (1.7%)



## Sussex Trauma Network

## Most senior doctor seeing patients within 5 minutes of arrival

## All patients directly admitted, all specialities

Site	Total	Consultant	ST: 3+	< ST: 3	Not recorded
<b>01 January 2019 to 31 December 2019</b>					
Conquest Hospital	209	26 (12.4%)	12 (5.7%)	1 (0.5%)	170 (81.3%)
Eastbourne District General Hospital	108	0 (0.0%)	0 (0.0%)	0 (0.0%)	108 (100.0%)
Princess Royal Haywards Heath	88	1 (1.1%)	3 (3.4%)	1 (1.1%)	83 (94.3%)
Royal Sussex County Hospital	632	439 (69.5%)	17 (2.7%)	0 (0.0%)	176 (27.8%)
St. Richards Hospital	181	3 (1.7%)	5 (2.8%)	6 (3.3%)	167 (92.3%)
Worthing Hospital	214	2 (0.9%)	5 (2.3%)	0 (0.0%)	207 (96.7%)
<b>01 January 2018 to 31 December 2018</b>					
Conquest Hospital	339	37 (10.9%)	19 (5.6%)	6 (1.8%)	277 (81.7%)
Eastbourne District General Hospital	173	1 (0.6%)	0 (0.0%)	0 (0.0%)	172 (99.4%)
Princess Royal Haywards Heath	91	1 (1.1%)	4 (4.4%)	0 (0.0%)	86 (94.5%)
Royal Sussex County Hospital	757	514 (67.9%)	20 (2.6%)	6 (0.8%)	217 (28.7%)
St. Richards Hospital	225	5 (2.2%)	1 (0.4%)	3 (1.3%)	216 (96.0%)
Worthing Hospital	281	0 (0.0%)	9 (3.2%)	1 (0.4%)	271 (96.4%)

## Sussex Trauma Network

## Most senior doctor seeing patients within 30 minutes of arrival

## All patients directly admitted, all specialities

Site	Total	Consultant	ST: 3+	< ST: 3	Not recorded
<b>01 January 2019 to 31 December 2019</b>					
Conquest Hospital	209	31 (14.8%)	28 (13.4%)	9 (4.3%)	141 (67.5%)
Eastbourne District General Hospital	108	1 (0.9%)	2 (1.9%)	5 (4.6%)	100 (92.6%)
Princess Royal Haywards Heath	88	4 (4.5%)	5 (5.7%)	9 (10.2%)	70 (79.5%)
Royal Sussex County Hospital	632	469 (74.2%)	32 (5.1%)	11 (1.7%)	120 (19.0%)
St. Richards Hospital	181	21 (11.6%)	23 (12.7%)	11 (6.1%)	126 (69.6%)
Worthing Hospital	214	16 (7.5%)	29 (13.6%)	4 (1.9%)	165 (77.1%)
<b>01 January 2018 to 31 December 2018</b>					
Conquest Hospital	339	50 (14.7%)	46 (13.6%)	20 (5.9%)	223 (65.8%)
Eastbourne District General Hospital	173	6 (3.5%)	3 (1.7%)	7 (4.0%)	157 (90.8%)
Princess Royal Haywards Heath	91	2 (2.2%)	11 (12.1%)	12 (13.2%)	66 (72.5%)
Royal Sussex County Hospital	757	536 (70.8%)	48 (6.3%)	22 (2.9%)	151 (19.9%)
St. Richards Hospital	225	15 (6.7%)	11 (4.9%)	20 (8.9%)	179 (79.6%)
Worthing Hospital	281	10 (3.6%)	30 (10.7%)	8 (2.8%)	233 (82.9%)

## Sussex Trauma Network

**Most senior doctor seeing patients in the Emergency Department****All patients directly admitted, all specialities**

Site	Total	Consultant	ST: 3+	< ST: 3	Not recorded
<b>01 January 2019 to 31 December 2019</b>					
Conquest Hospital	207	56 (27.1%)	88 (42.5%)	62 (30.0%)	1 (0.5%)
Eastbourne District General Hospital	107	14 (13.1%)	41 (38.3%)	48 (44.9%)	4 (3.7%)
Princess Royal Haywards Heath	87	12 (13.8%)	29 (33.3%)	46 (52.9%)	0 (0.0%)
Royal Sussex County Hospital	625	507 (81.1%)	59 (9.4%)	59 (9.4%)	0 (0.0%)
St. Richards Hospital	176	50 (28.4%)	89 (50.6%)	36 (20.5%)	1 (0.6%)
Worthing Hospital	208	45 (21.6%)	143 (68.8%)	18 (8.7%)	2 (1.0%)
<b>01 January 2018 to 31 December 2018</b>					
Conquest Hospital	332	86 (25.9%)	120 (36.1%)	125 (37.7%)	1 (0.3%)
Eastbourne District General Hospital	166	22 (13.3%)	54 (32.5%)	87 (52.4%)	3 (1.8%)
Princess Royal Haywards Heath	89	9 (10.1%)	31 (34.8%)	44 (49.4%)	5 (5.6%)
Royal Sussex County Hospital	750	562 (74.9%)	88 (11.7%)	91 (12.1%)	9 (1.2%)
St. Richards Hospital	222	39 (17.6%)	77 (34.7%)	102 (45.9%)	4 (1.8%)
Worthing Hospital	274	44 (16.1%)	158 (57.7%)	67 (24.5%)	5 (1.8%)



## Sussex Trauma Network

## Time to CT scan

## Direct Admissions

(excluding patients with a time difference greater than 24 hours or taken directly to theatre)

## Trauma Unit data only

Patient category	n (CT with date and time rec)	Median minutes to*			TARN median minutes to	
		CT	Provisional report	Final report	CT	Final report
<b>01 January 2019 to 31 December 2019</b>						
All Patients	547	156 (77 - 253)	53 (35 - 82)	731 (482 - 935)	96 (36 - 223)	206 (74 - 712)
AIS 3+ Head Injury	234	137 (73 - 224)	46 (31 - 71)	723 (482 - 910)	74 (31 - 165)	203 (72 - 709)
NICE head injury criteria	14	62 (44 - 102)	36 (36 - 67)	N/A	30 (20 - 49)	231 (81 - 705)
<b>01 January 2018 to 31 December 2018</b>						
All Patients	638	165 (88 - 261)	61 (42 - 93)	795 (423 - 971)	94 (36 - 216)	209 (71 - 733)
AIS 3+ Head Injury	251	147 (82 - 217)	57 (41 - 82)	725 (438 - 883)	74 (31 - 164)	210 (69 - 715)
NICE head injury criteria	18	97 (47 - 287)	55 (47 - 78)	N/A	31 (20 - 53)	244 (83 - 687)

**Median time to CT**

Time from hospital arrival to first CT scan

**Median time to provisional report**

Time from first CT scan to the provisional report being produced

**Median time to final report**

Time from first CT scan to the review of the provisional report by a consultant

\* N/A means there are not enough cases to calculate the median and interquartile range

## Sussex Trauma Network

## Time to CT scan - All Patients

## Direct admissions (excluding patients taken directly to theatre)

01 January 2019 to 31 December 2019

Hospital	n	n (CT with date and time rec)	Median time to (mins)*		
			CT	Provisional report	Final report
Conquest Hospital	147	147	140 (64 - 268)	44 (33 - 58)	817 (609 - 995)
Eastbourne District General Hospital	79	79	176 (87 - 294)	45 (28 - 79)	770 (597 - 902)
Princess Royal Haywards Heath	56	56	156 (93 - 227)	82 (56 - 126)	566 (439 - 761)
Royal Sussex County Hospital	527	525	48 (27 - 140)	77 (50 - 115)	627 (281 - 847)
St. Richards Hospital	124	124	125 (60 - 233)	57 (40 - 82)	N/A
Worthing Hospital	141	141	188 (113 - 242)	46 (33 - 75)	N/A

01 January 2018 to 31 December 2018

Hospital	n	n (CT with date and time rec)	Median time to (mins)*		
			CT	Provisional report	Final report
Conquest Hospital	194	194	132 (55 - 247)	51 (39 - 67)	771 (433 - 962)
Eastbourne District General Hospital	115	115	189 (117 - 268)	62 (42 - 78)	878 (631 - 1021)
Princess Royal Haywards Heath	55	55	163 (117 - 235)	78 (55 - 114)	588 (277 - 927)
Royal Sussex County Hospital	653	652	36 (18 - 118)	81 (57 - 118)	579 (248 - 790)
St. Richards Hospital	126	126	183 (97 - 311)	58 (41 - 90)	N/A
Worthing Hospital	148	148	173 (110 - 250)	68 (46 - 100)	N/A

\* N/A means there are not enough cases to calculate the median and interquartile range

## Sussex Trauma Network

## Time to CT scan - AIS 3+ Head Injury

## Direct admissions (excluding patients taken directly to theatre)

01 January 2019 to 31 December 2019

Hospital	n	n (CT with date and time rec)	Median time to (mins)*		
			CT	Provisional report	Final report
Conquest Hospital	53	53	138 (69 - 236)	46 (33 - 58)	717 (518 - 866)
Eastbourne District General Hospital	49	49	148 (80 - 238)	38 (28 - 54)	896 (879 - 935)
Princess Royal Haywards Heath	22	22	130 (113 - 189)	74 (54 - 110)	599 (310 - 761)
Royal Sussex County Hospital	154	152	38 (25 - 58)	67 (48 - 104)	648 (377 - 864)
St. Richards Hospital	45	45	125 (61 - 221)	47 (35 - 61)	N/A
Worthing Hospital	65	65	139 (96 - 223)	42 (29 - 65)	N/A

01 January 2018 to 31 December 2018

Hospital	n	n (CT with date and time rec)	Median time to (mins)*		
			CT	Provisional report	Final report
Conquest Hospital	69	69	127 (51 - 192)	50 (32 - 76)	771 (626 - 826)
Eastbourne District General Hospital	64	64	173 (101 - 268)	62 (42 - 78)	850 (706 - 903)
Princess Royal Haywards Heath	22	22	146 (114 - 235)	61 (49 - 102)	487 (111 - 666)
Royal Sussex County Hospital	217	217	32 (17 - 78)	80 (55 - 115)	551 (263 - 755)
St. Richards Hospital	41	41	141 (89 - 231)	52 (40 - 79)	N/A
Worthing Hospital	55	55	148 (103 - 184)	53 (46 - 80)	N/A

\* N/A means there are not enough cases to calculate the median and interquartile range

## Sussex Trauma Network

## Time to CT scan - NICE head injury criteria

## Direct admissions (excluding patients taken directly to theatre)

01 January 2019 to 31 December 2019

Hospital	n	n (CT with date and time rec)	Median time to (mins)*		
			CT	Provisional report	Final report
Conquest Hospital	5	5	41 (41 - 44)	N/A	N/A
Eastbourne District General Hospital	3	3	N/A	N/A	N/A
Royal Sussex County Hospital	38	37	24 (19 - 32)	64 (50 - 98)	677 (490 - 917)
St. Richards Hospital	3	3	N/A	N/A	N/A
Worthing Hospital	3	3	N/A	N/A	N/A

01 January 2018 to 31 December 2018

Hospital	n	n (CT with date and time rec)	Median time to (mins)*		
			CT	Provisional report	Final report
Conquest Hospital	6	6	139 (114 - 357)	N/A	N/A
Eastbourne District General Hospital	6	6	45 (43 - 131)	N/A	N/A
Royal Sussex County Hospital	62	62	20 (14 - 31)	79 (54 - 112)	459 (212 - 687)
St. Richards Hospital	1	1	N/A	N/A	N/A
Worthing Hospital	5	5	81 (81 - 265)	N/A	N/A

\* N/A means there are not enough cases to calculate the median and interquartile range

## Sussex Trauma Network

**Time to first operation (emergency operations only)****Direct Admissions (excluding patients with a time difference greater than 24 hours)**

## Trauma Unit data only

Patient category	n	Median minutes to operation*	TARN median minutes to operation
<b>01 January 2019 to 31 December 2019</b>			
All Patients	3	N/A	541 (196 - 1019)
Limb operations	1	N/A	1008 (640 - 1240)
Skin operations	2	N/A	814 (359 - 1082)
<b>01 January 2018 to 31 December 2018</b>			
All Patients	15	969 (939 - 1264)	507 (189 - 1010)
Spinal operations	1	N/A	823 (464 - 1156)
Abdominal operations	2	N/A	169 (93 - 320)
Limb operations	6	1005 (969 - 1148)	979 (574 - 1227)
Skin operations	6	979 (949 - 1264)	790 (350 - 1064)

A list of the procedures defined as emergency operations is available from TARN on request.

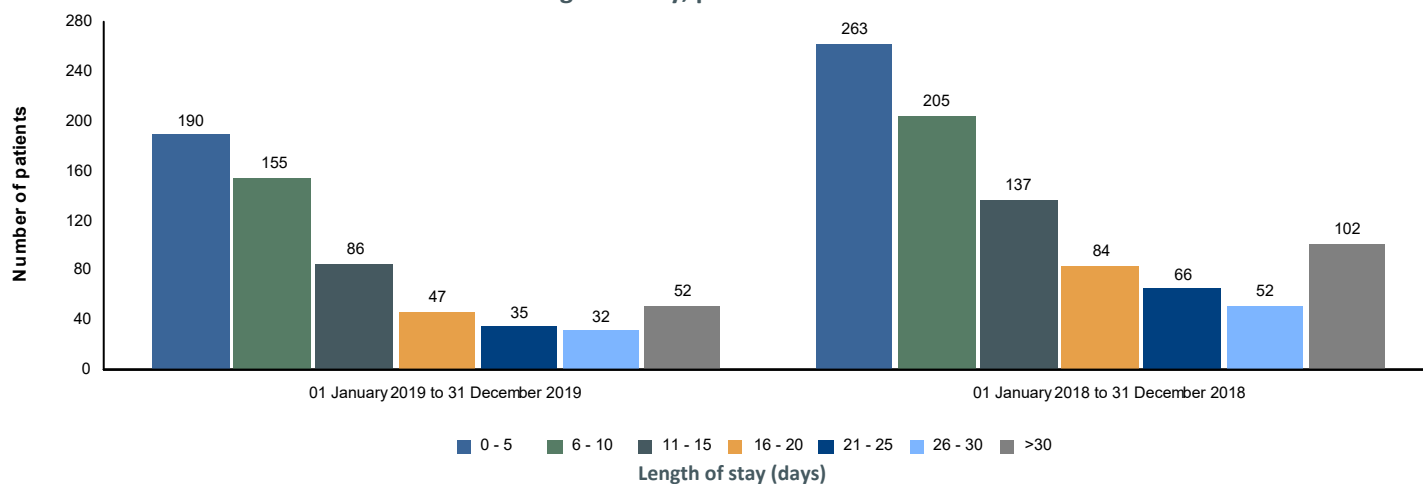
\* N/A means there are not enough cases to calculate the median and interquartile range

Sussex Trauma Network  
**Length of stay (LOS) in hospital**  
 Trauma Unit data only

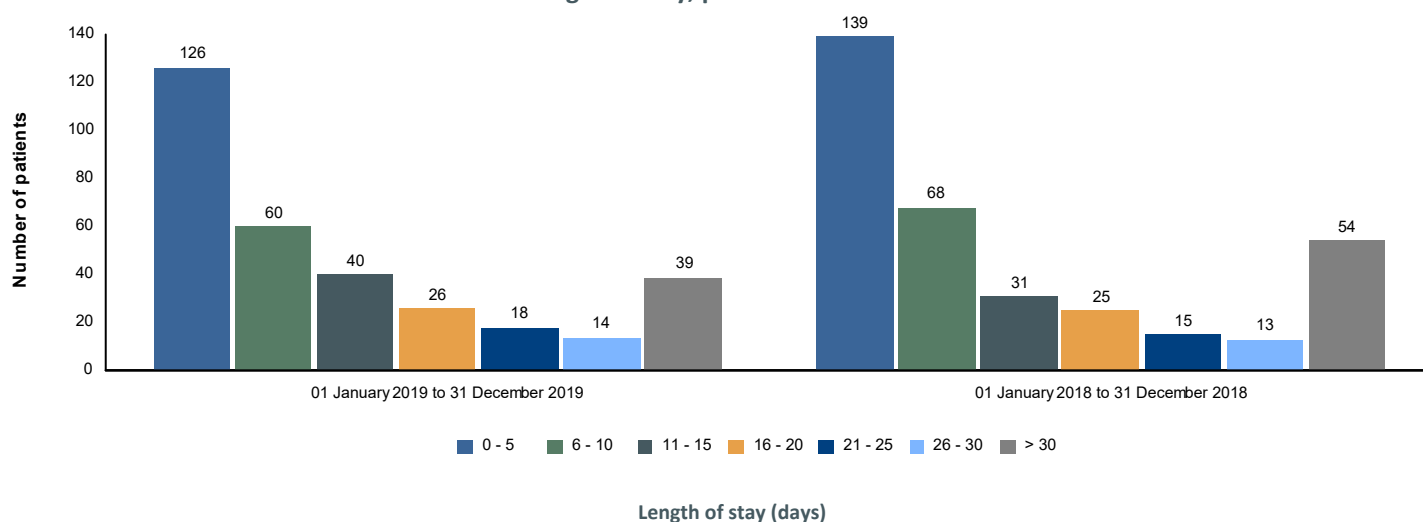
Date range	All patients			ISS <= 15			ISS > 15		
	n	Median LOS	Total days	n	Median LOS	Total days	n	Median LOS	Total days
01 January 2019 to 31 December 2019	920	9 (4 - 18)	12491	597	9 (4 - 17)	7844	323	9 (3 - 18)	4647
TARN average		8 (4 - 15)			8 (4 - 15)			8 (4 - 17)	
01 January 2018 to 31 December 2018	1254	10 (4 - 20)	19138	909	10 (5 - 20)	13570	345	7 (3 - 19)	5568
TARN average		8 (4 - 17)			8 (5 - 16)			8 (4 - 18)	

All values are median number of days (interquartile range)

Total length of stay, patients with an ISS <= 15



Total length of stay, patients with an ISS > 15

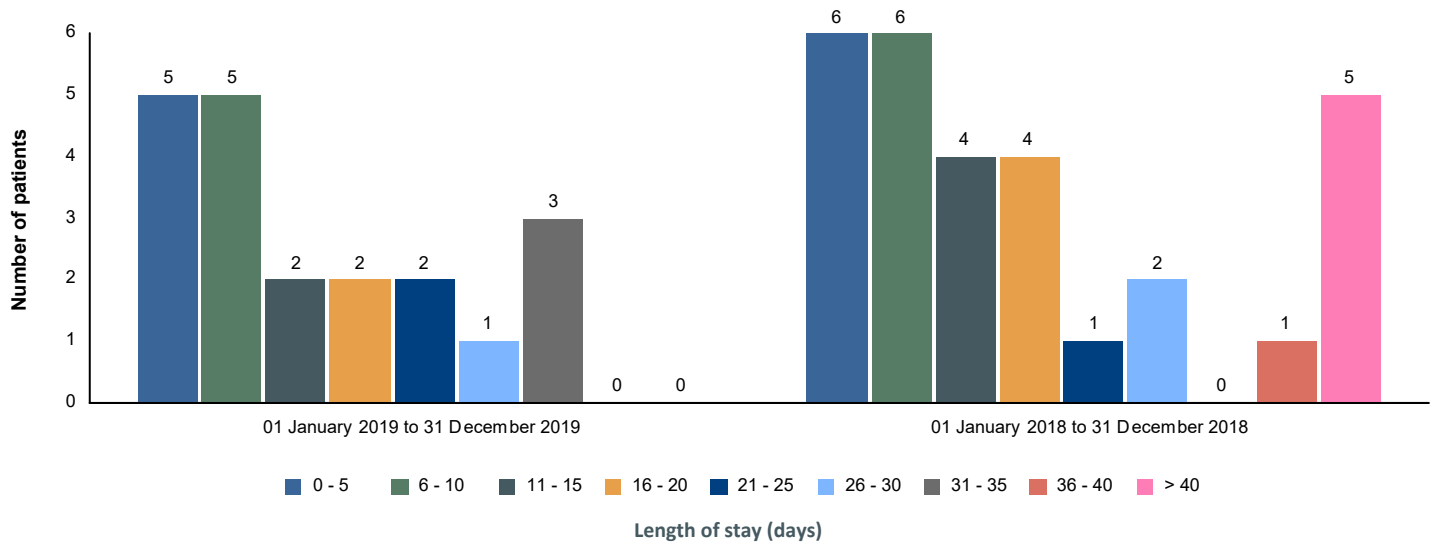


Sussex Trauma Network  
Critical Care Information

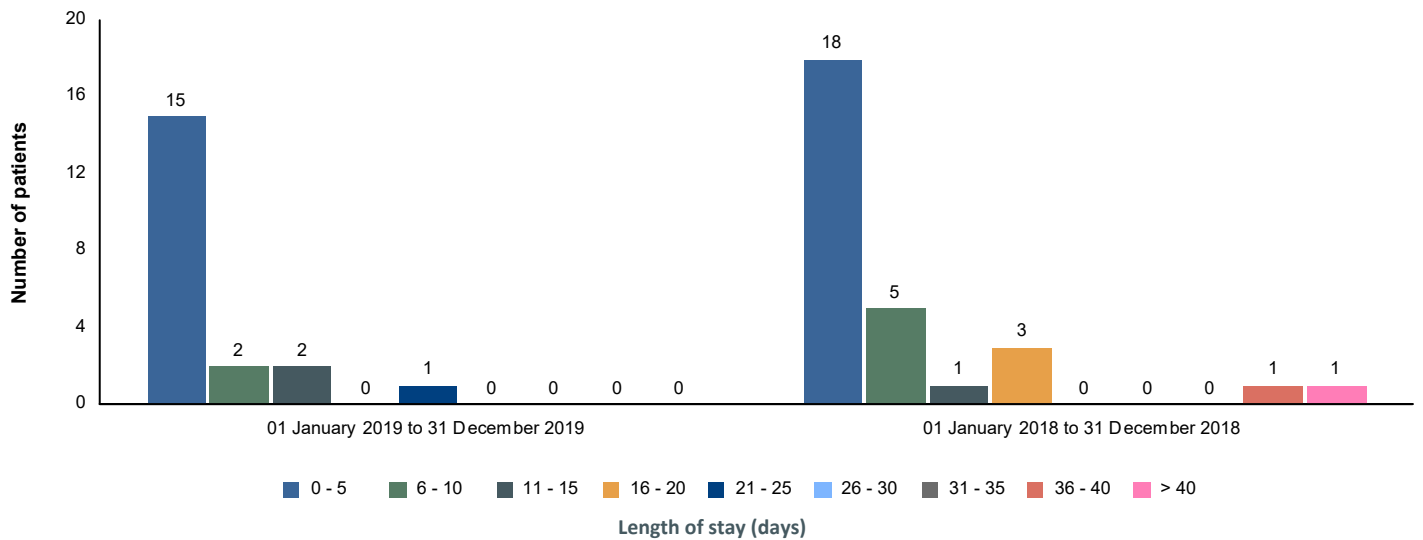
Trauma Unit data only

Date range	Patients that went to critical care	Median total LOS for critical care patients (days)	Median LOS in critical care (days)	Multiple stays in critical care area*	Multiple stays in critical care area with dates recorded*	Multiple stays in critical care area within 48 hours*
01 January 2019 to 31 December 2019	20	11 (6 - 23)	2 (1 - 5)	1 (5.0%)	0 (0.0%)	N/A
TARN average		11 (5 - 22)	3 (1 - 7)	5.8%	3.7%	0.3%
01 January 2018 to 31 December 2018	29	13 (7 - 28)	4 (3 - 8)	2 (6.9%)	0 (0.0%)	N/A
TARN average		12 (5 - 24)	3 (1 - 7)	6.3%	3.8%	0.2%

Total hospital length of stay for patients that went to critical care



Total length of stay in critical care



\* Multi stays also includes step downs (i.e. ICU -> HDU) within critical care area

## Sussex Trauma Network Critical Care Information

Site	n	Median total length of stay (days)	Median length of stay in critical care (days)	Multiple stays in critical care area*	Multiple stays in critical care area with dates recorded*	Multiple stays in critical care area within 48 hours*
<b>01 January 2019 to 31 December 2019</b>						
Conquest Hospital	7	6 (6 - 23)	1 (1 - 5)	1 (14.3%)	0 (0.0%)	N/A
Eastbourne District General Hospital	4	19	5	0 (0.0%)	N/A	N/A
Princess Royal Haywards Heath	5	16 (16 - 18)	4 (4 - 11)	0 (0.0%)	N/A	N/A
Royal Sussex County Hospital	170	12 (6 - 22)	4 (2 - 9)	6 (3.5%)	0 (0.0%)	N/A
St. Richards Hospital	1	6	2	0 (0.0%)	N/A	N/A
Worthing Hospital	3	8	2	0 (0.0%)	N/A	N/A
<b>01 January 2018 to 31 December 2018</b>						
Conquest Hospital	13	18 (13 - 28)	3 (2 - 6)	1 (7.7%)	0 (0.0%)	N/A
Eastbourne District General Hospital	3	7	2	0 (0.0%)	N/A	N/A
Princess Royal Haywards Heath	5	19 (19 - 39)	19 (19 - 38)	0 (0.0%)	N/A	N/A
Royal Sussex County Hospital	199	13 (7 - 26)	5 (2 - 9)	3 (1.5%)	0 (0.0%)	N/A
St. Richards Hospital	5	8 (8 - 11)	4 (4 - 5)	0 (0.0%)	N/A	N/A
Worthing Hospital	3	44	8	1 (33.3%)	0 (0.0%)	N/A

\* Multi stays also includes step downs (i.e. ICU -> HDU) within critical care area



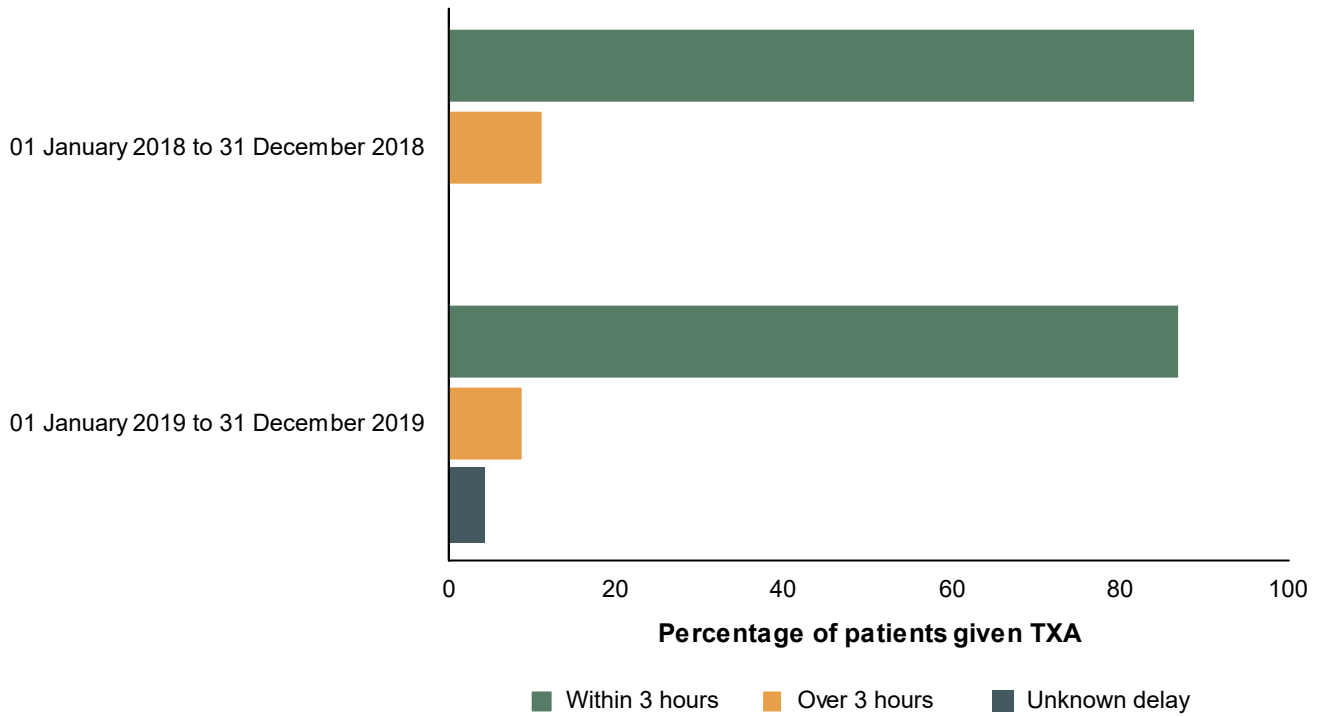
Sussex Trauma Network

**Patients receiving Tranexamic Acid**

All patients who receive blood products within 6 hours of the incident.

Trauma Unit data only

Date Range	n	Received TXA	TXA within 3 hours of incident	TXA over 3 hours from incident	TXA, unknown delay
01 January 2018 to 31 December 2018	21	18	16 (88.9%)	2 (11.1%)	0 (0.0%)
TARN average			86.5%	7.9%	5.7%
01 January 2019 to 31 December 2019	25	23	20 (87.0%)	2 (8.7%)	1 (4.3%)
TARN average			90.3%	6.5%	3.1%



**NICE Quality Standards**

Figures in blue represent the TARN average

Trauma Unit data only

**1: Airway Management****Rapid sequence induction (RSI) of anaesthesia and intubation within 45 minutes of the initial call to the emergency services.**

n	Definitive airway	At scene	ED	Recorded within 45 minutes of initial call
<b>Direct admissions, 01 January 2019 to 31 December 2019</b>				
7	3 (42.9%)	0 (0.0%)	3 (42.9%)	0 (0.0%)
	59.1%	14.0%	45.1%	3.0%
<b>Direct admissions, 01 January 2018 to 31 December 2018</b>				
11	2 (18.2%)	2 (18.2%)	0 (0.0%)	0 (0.0%)
	63.2%	18.6%	44.5%	2.6%

Definitive airway management is defined as the management of an airway using intubation, tracheostomy or cricothyroidotomy. Patient are eligible for this standard if they have a GCS < 9 pre-hospital or in the ED.

**2: Imaging****People who have had urgent 3D imaging for major trauma have a provisional written radiology report within 60 minutes of the scan.**

Number of patients undergoing 3D imaging	Provisional written report within 60 minutes
<b>Direct admissions, 01 January 2019 to 31 December 2019</b>	
393	6 (1.5%)
	9.6%
<b>Direct admissions, 01 January 2018 to 31 December 2018</b>	
453	2 (0.4%)
	9.3%

Patients are eligible for this standard when they have undergone urgent 3D imaging (CT or MRI within 4 hours of arrival). People who have had urgent 3D imaging for major trauma have a provisional written radiology report within 60 minutes of the scan.

**3: Fixation & soft tissue cover of open long bone fractures****People with open fractures of long bones have fixation and definitive soft tissue cover within 72 hours of injury**

n	Stabilisation & fixation	Definitive soft tissue cover	Stabilisation, fixation & definitive soft tissue cover within 72 hrs
<b>Direct admissions, 01 January 2019 to 31 December 2019</b>			
23	12 (52.2%)	8 (34.8%)	8 (33.3%)
	70.0%	22.5%	21.4%
<b>Direct admissions, 01 January 2018 to 31 December 2018</b>			
23	12 (52.2%)	6 (26.1%)	6 (25%)
	70.0%	22.5%	21.4%

Patients are eligible for this standard when they have suffered from open fractures of the femur, tibia, fibula, humerus, radius & ulna



## Section II

Patients with Thoracic Injuries  
Patients with Abdominal Injuries  
Patients with 3+ Rib Fractures  
Patients in Shock

Sussex Trauma Network  
**Thoracic Injuries - Summary Information**

## Trauma Unit data only

	Children (0 - 15)		Adults		Total
	Blunt	Penetrating	Blunt	Penetrating	
<b>01 January 2019 to 31 December 2019</b>					
Thoracic Injuries - All Severities					
Direct Admissions	0	0	187	0	187
Transfers In	0	0	32	0	32
Thoracic Injuries - AIS 3+					
Direct Admissions	0	0	125	0	125
Transfers In	0	0	26	0	26
<b>01 January 2018 to 31 December 2018</b>					
Thoracic Injuries - All Severities					
Direct Admissions	1	0	213	2	216
Transfers In	0	0	30	0	30
Thoracic Injuries - AIS 3+					
Direct Admissions	1	0	142	2	145
Transfers In	0	0	22	0	22

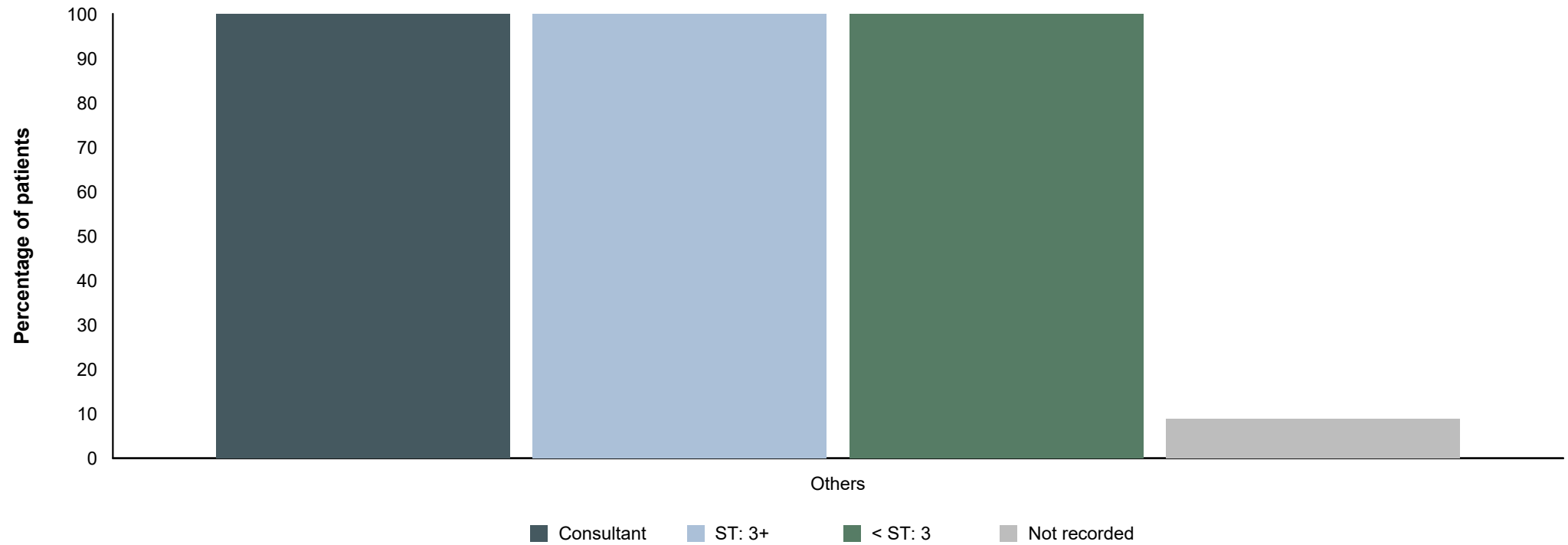
Sussex Trauma Network

**Most senior doctor seeing patients with AIS 3+ thoracic injuries in the Emergency Department**

Patients directly admitted, all specialities

Trauma Unit data only

Category	Total	Consultant	TARN average consultant	ST: 3+	< ST: 3	Not recorded
<b>01 January 2019 to 31 December 2019</b>						
Isolated Thoracic Injuries	100	24 (24.0%)	53.3%	27 (27.0%)	44 (44.0%)	2 (2.0%)
Non-Isolated Thoracic Injuries	25	6 (24.0%)	81.8%	8 (32.0%)	10 (40.0%)	0 (0.0%)
<b>01 January 2018 to 31 December 2018</b>						
Isolated Thoracic Injuries	123	27 (22.0%)	52.6%	23 (18.7%)	69 (56.1%)	3 (2.4%)
Non-Isolated Thoracic Injuries	22	7 (31.8%)	81.9%	7 (31.8%)	6 (27.3%)	1 (4.5%)



## Sussex Trauma Network

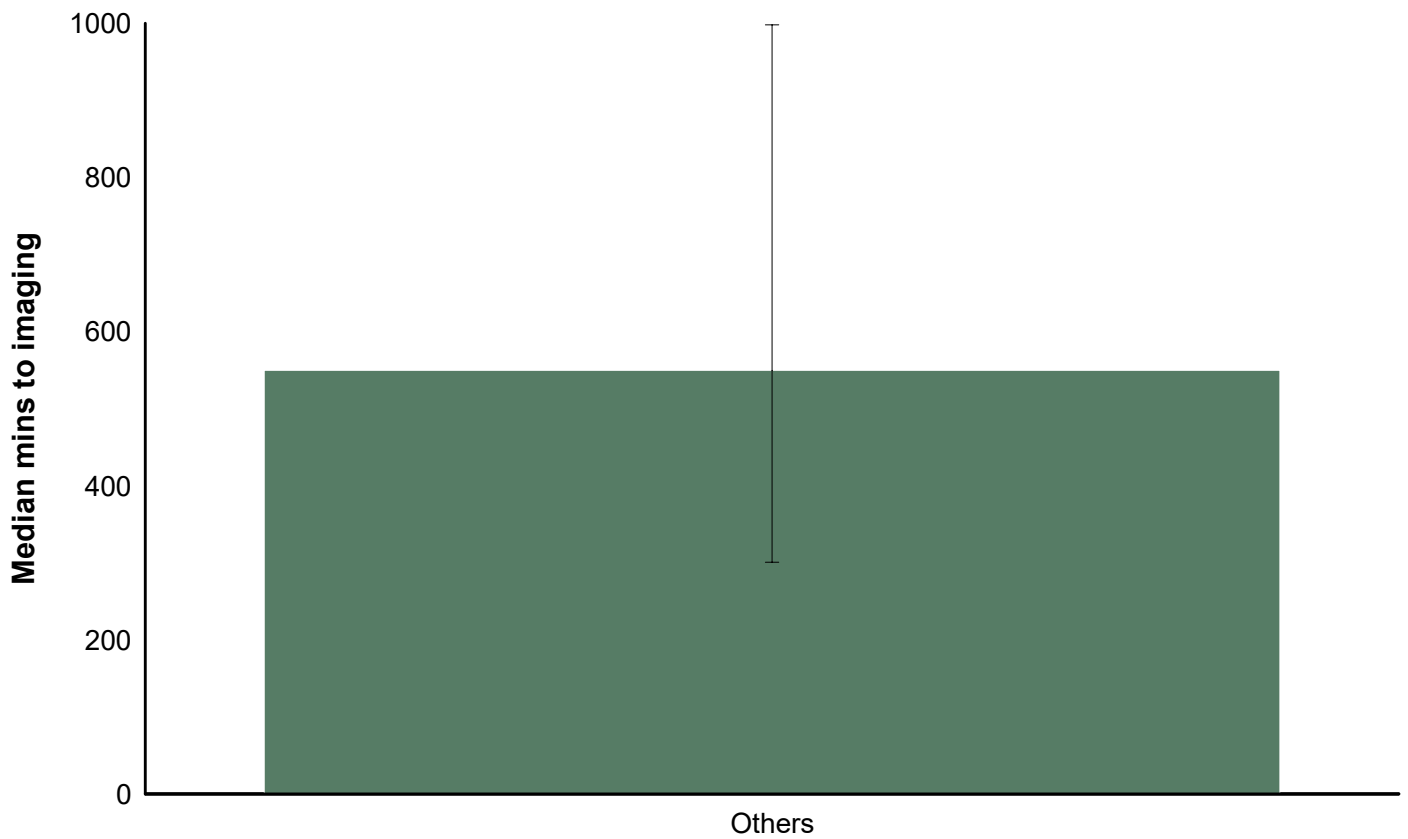
## Time to CT or MRI scan, patients with AIS3+ thoracic injuries

## Direct Admissions

(excluding patients with a time difference greater than 24 hours or taken directly to theatre)

## Trauma Unit data only

Category	n	Imaging recorded	Imaging with date & time	Mins to imaging* Median (IQR)	TARN mins to imaging Median (IQR)
<b>01 January 2019 to 31 December 2019</b>					
Isolated Thoracic Injuries	79	79	79	163 (79 - 296)	104 (38 - 228)
Non-Isolated Thoracic Injuries	22	22	22	158 (75 - 273)	32 (21 - 60)
<b>01 January 2018 to 31 December 2018</b>					
Isolated Thoracic Injuries	89	89	89	162 (97 - 255)	102 (38 - 220)
Non-Isolated Thoracic Injuries	21	21	21	67 (50 - 174)	32 (21 - 60)



\* N/A means there are not enough cases to calculate the median / IQR

## Sussex Trauma Network

**Abdominal Injuries - Summary Information**

## Trauma Unit data only

	Children		Adults		Total
	Blunt	Penetrating	Blunt	Penetrating	
<b>01 January 2019 to 31 December 2019</b>					
Abdominal Injuries - All Severities					
Direct Admissions	2	0	18	0	20
Transfers In	0	0	9	0	9
Abdominal Injuries - AIS 3+					
Direct Admissions	1	0	5	0	6
Transfers In	0	0	5	0	5
<b>01 January 2018 to 31 December 2018</b>					
Abdominal Injuries - All Severities					
Direct Admissions	4	0	18	1	23
Transfers In	0	0	7	0	7
Abdominal Injuries - AIS 3+					
Direct Admissions	3	0	9	1	13
Transfers In	0	0	5	0	5

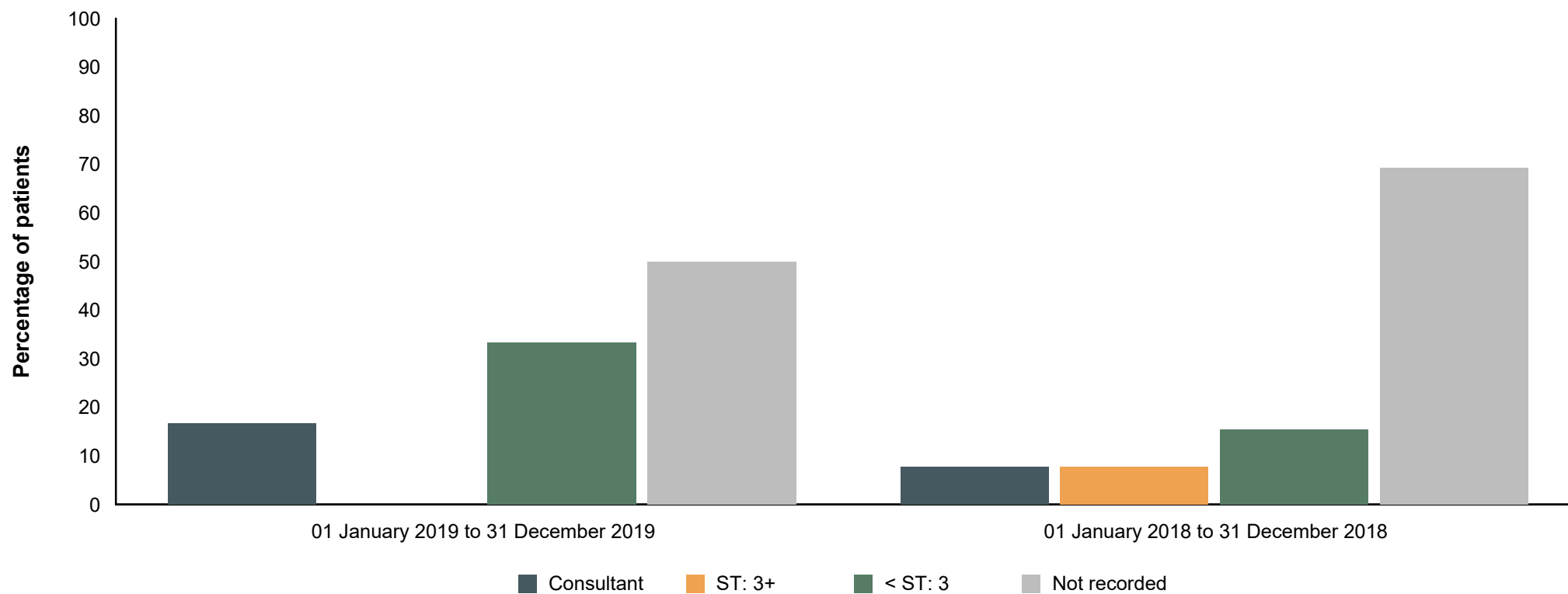
Sussex Trauma Network

Presence and grade of general surgeon in the ED for patients with AIS 3+ abdominal injuries

Direct Admissions

Trauma Unit data only

Total	Consultant	TARN average consultant	ST: 3+	< ST: 3	Not recorded
<b>01 January 2019 to 31 December 2019</b>					
6	1 (16.7%)	7.4%	0 (0.0%)	2 (33.3%)	3 (50.0%)
<b>01 January 2018 to 31 December 2018</b>					
13	1 (7.7%)	7.5%	1 (7.7%)	2 (15.4%)	9 (69.2%)



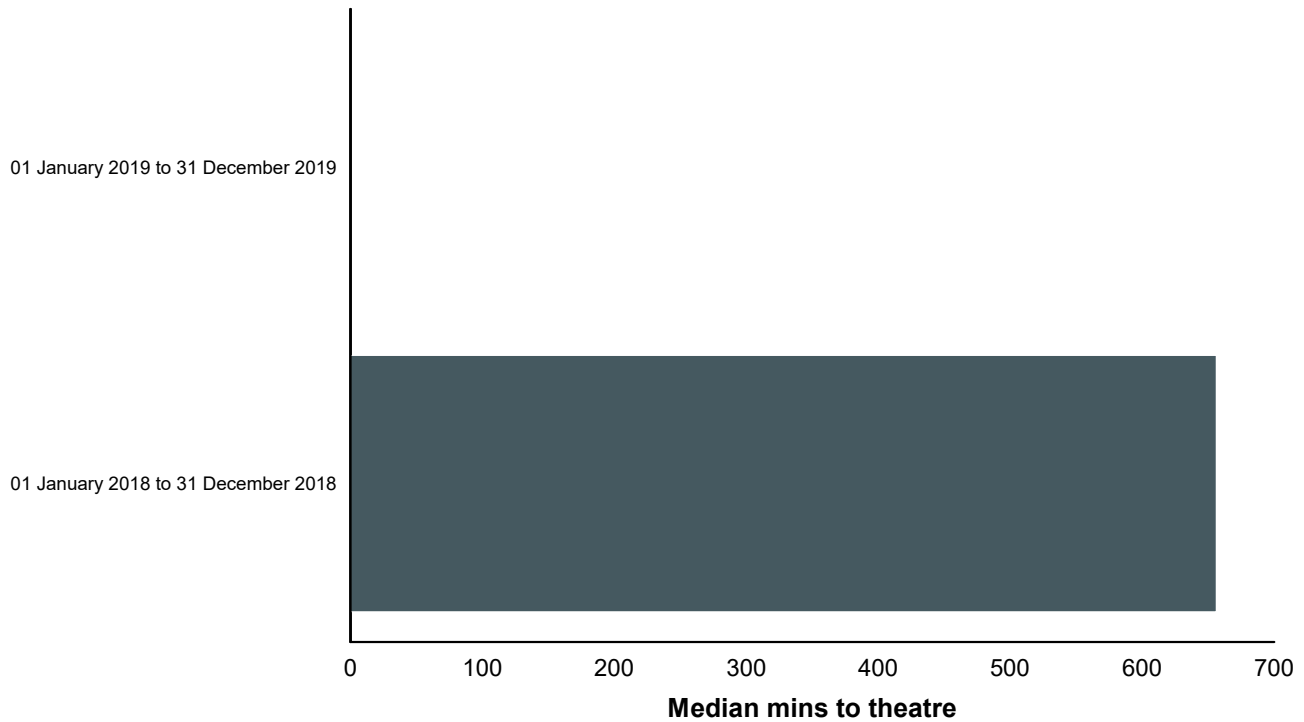


## Sussex Trauma Network

**Time to theatre (emergency operations), patients with AIS3+ abdominal injuries****Direct Admissions (excluding patients with a time difference greater than 24 hours)**

Trauma Unit data only

Date Range	n	Operation recorded	Mins to theatre* Median (IQR)	TARN mins to theatre Median (IQR)
01 January 2019 to 31 December 2019	6	0	(N/A)	167 (93 - 339)
01 January 2018 to 31 December 2018	13	2	656 (N/A)	156 (91 - 302)



A list of the procedures defined as emergency operations is available from TARN on request.

\* N/A means there are not enough cases to calculate the median and interquartile range

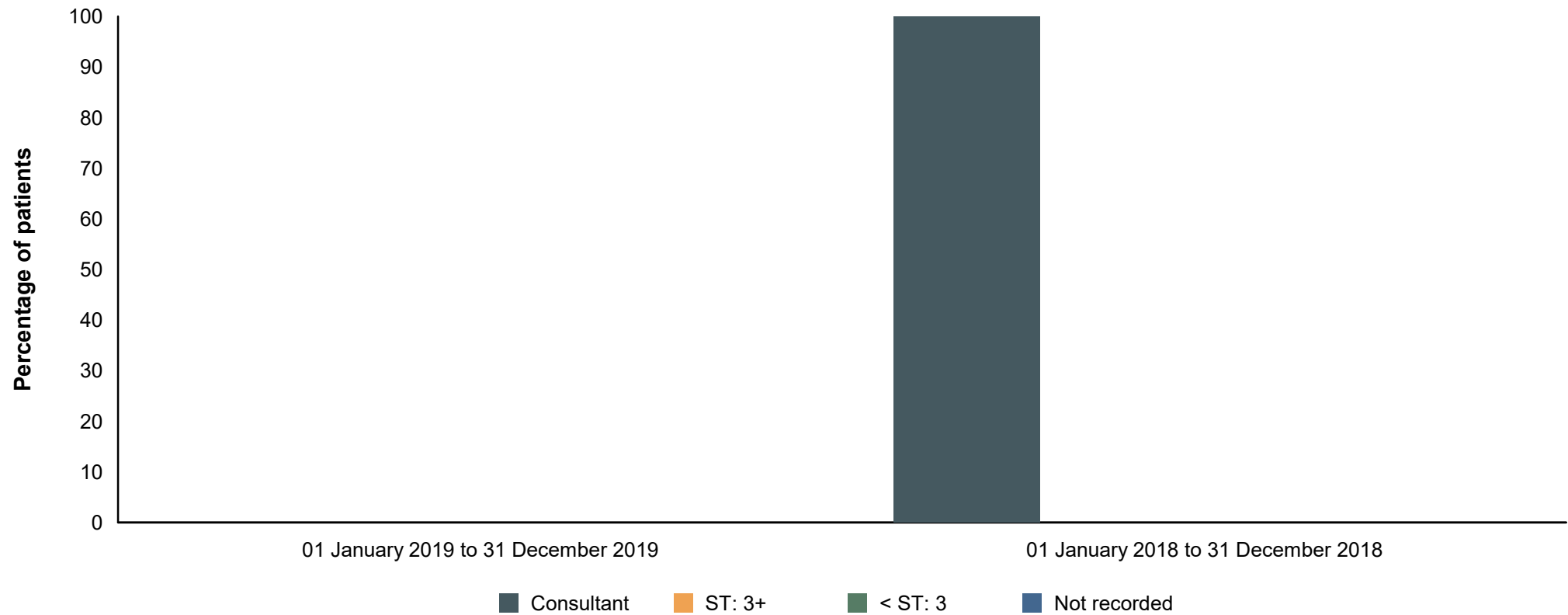
## Sussex Trauma Network

## Grade of Surgeon during the initial operation for patients with AIS 3+ abdominal injuries

## Direct Admissions

## Trauma Unit data only

	Total	Consultant	TARN average consultant	ST: 3+	< ST: 3	Not recorded
01 January 2019 to 31 December 2019	0	0 (0.0%)	89.2%	0 (0.0%)	0 (0.0%)	0 (0.0%)
01 January 2018 to 31 December 2018	2	2 (100.0%)	90.2%	0 (0.0%)	0 (0.0%)	0 (0.0%)



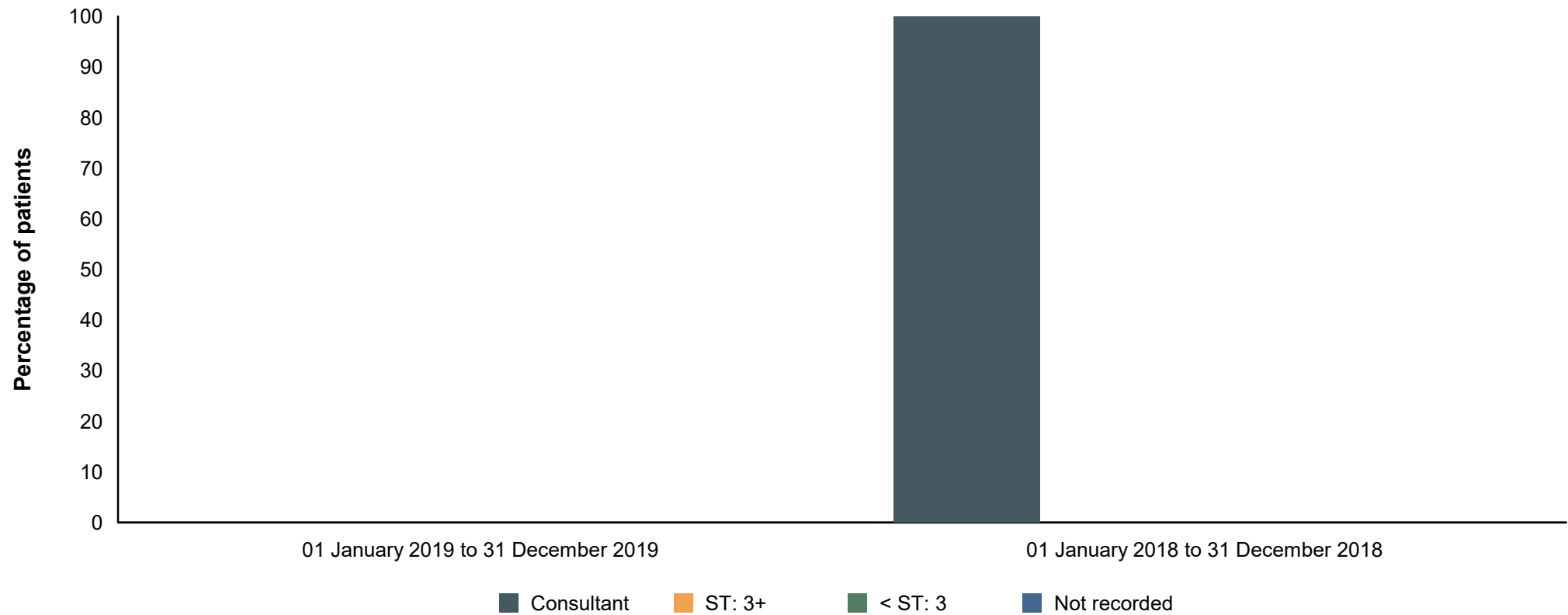
## Sussex Trauma Network

## Grade of Anaesthetist during the initial operation for patients with AIS 3+ abdominal injuries

## Direct Admissions

## Trauma Unit data only

	Total	Consultant	TARN average consultant	ST: 3+	< ST: 3	Not recorded
01 January 2019 to 31 December 2019	0	0 (0.0%)	76.9%	0 (0.0%)	0 (0.0%)	0 (0.0%)
01 January 2018 to 31 December 2018	2	2 (100.0%)	80.8%	0 (0.0%)	0 (0.0%)	0 (0.0%)



Sussex Trauma Network  
**Management of chest wall injuries**  
 Patients with 3+ rib fractures

## Trauma Unit data only

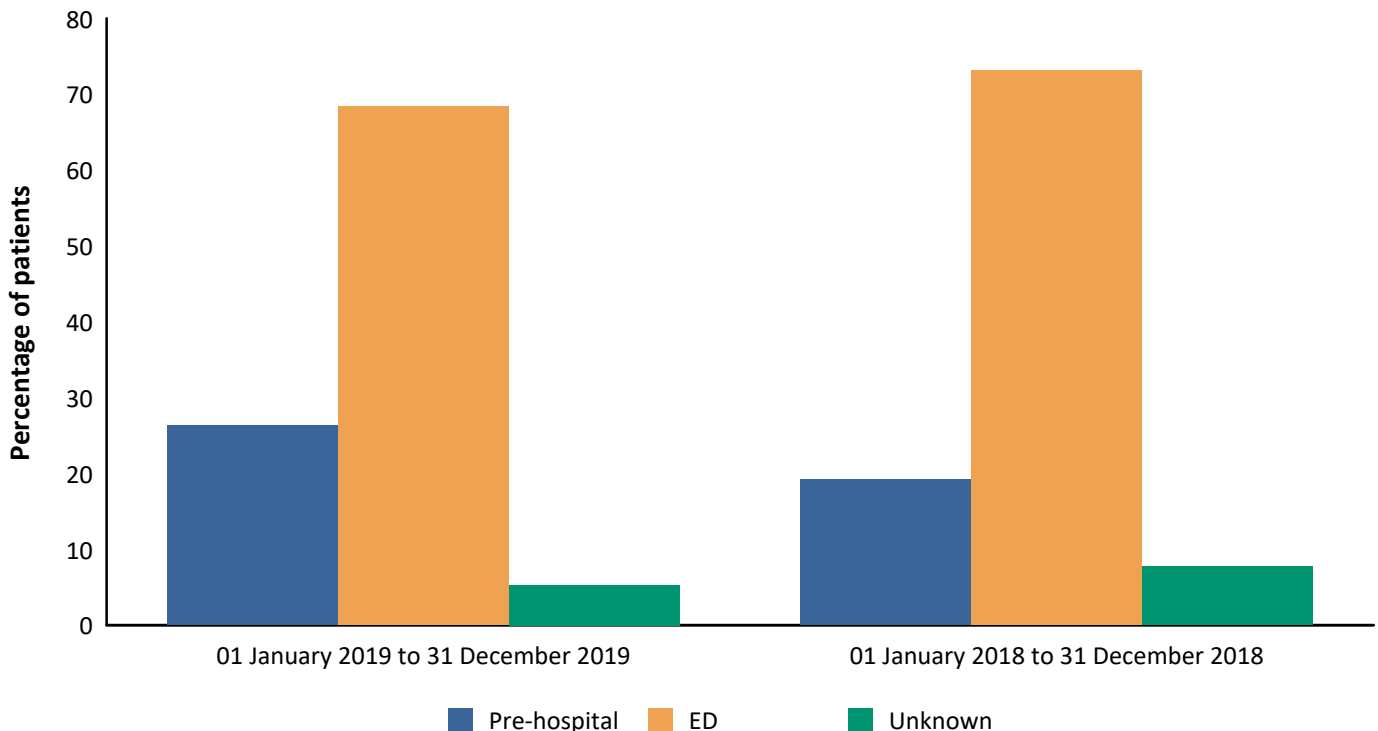
Date range	Total	Transfers in	Rib fixation	Aged under 65	Aged 65 and over	Given pain relief*	Median LOS (IQR)	Median LOS CC (IQR)
01 January 2019 to 31 December 2019	108	22 (20.4%)	0 (0%)	31 (28.7%)	77 (71.3%)	19 (17.6%)	7 (3 - 14)	1 (1 - 2)
<b>TARN average</b>		15%	3.9%	46.3%	53.7%	32.2%	8 (4 - 15)	4 (2 - 8)
01 January 2018 to 31 December 2018	117	15 (12.8%)	0 (0%)	34 (29.1%)	83 (70.9%)	26 (22.2%)	8 (3 - 17)	5 (4 - 12)
<b>TARN average</b>		15%	3.2%	47.8%	52.2%	28.5%	9 (5 - 16)	4 (2 - 9)

## Patients with 3+ rib fractures given pain relief

## Trauma Unit data only

Date range	Total	Pain relief location			Minutes to pain relief Median (IQR)**
		Pre-hospital	ED	Unknown	
01 January 2019 to 31 December 2019	19	5 (26.3%)	13 (68.4%)	1 (5.3%)	255 (180 - 650)
<b>TARN average</b>		27.9%	65.4%	6.7%	225 (88 - 403)
01 January 2018 to 31 December 2018	26	5 (19.2%)	19 (73.1%)	2 (7.7%)	185 (103 - 273)
<b>TARN average</b>		29.1%	62.1%	8.9%	215 (83 - 383)

## Location pain relief was administered



\* Pain relief includes the following analgesia types:

Local anaesthetic patches, Local anaesthetic blockade (non epidural/paravertebral), Epidural block, Paravertebral block, Other

\*\* Excluding patients with a time difference greater than 24 hours

## Sussex Trauma Network

**Management of shocked\* patients****\*Adults with SBP < 110 pre-hospital or in the ED & a blunt injury mechanism**

Trauma Unit data only

Date Range	Transfer Type	n	Died
01 January 2019 to 31 December 2019	Direct Admissions	94	7 (7.4%)
01 January 2018 to 31 December 2018	Direct Admissions	156	11 (7.1%)

**Direct Admissions****01 January 2019 to 31 December 2019**

Grade of most senior doctor performing the initial operation on shocked patients

Category	Consultant	ST: 3+	< ST: 3+	Not recorded
<b>Grade of Surgeon</b>	13 (72.2%)	1 (5.6%)	0 (0.0%)	4 (22.2%)
<b>Grade of Anaesthetist</b>	12 (66.7%)	1 (5.6%)	0 (0.0%)	5 (27.8%)

76 of the 94 patients directly admitted had no operation recorded.

**01 January 2018 to 31 December 2018**

Grade of most senior doctor performing the initial operation on shocked patients

Category	Consultant	ST: 3+	< ST: 3+	Not recorded
<b>Grade of Surgeon</b>	29 (64.4%)	6 (13.3%)	0 (0.0%)	10 (22.2%)
<b>Grade of Anaesthetist</b>	33 (73.3%)	1 (2.2%)	2 (4.4%)	9 (20.0%)

111 of the 156 patients directly admitted had no operation recorded.