



Bwrdd Iechyd Prifysgol
Bae Abertawe
Swansea Bay University
Health Board



Meeting Date	23 February 2021	Agenda Item	3.3
Report Title	Overview of the ODN for the SWTN		
Report Author	Rachel Taylor (Operational Manager, SWTN)		
Report Sponsor	Sian Harrop-Griffiths (SRO, SWTN)		
Presented by	Rachel Taylor & Dindi Gill (Clinical Director, SWTN)		
Freedom of Information	Open		
Purpose of the Report	<p>To present on progress following the implementation of the South Wales Trauma Network (SWTN) and the role of the Operational Delivery team (ODN) team.</p> <p>The ODN is hosted by SBUHB and as part of the governance process the ODN reports into the SBUHB Quality and safety committee twice a year.</p>		
Key Issues	<ol style="list-style-type: none"> 1. To give an overview of the progress since the SWTN went live. 2. To confirm the governance arrangements that are in place. 3. To assure to the committee that all processes identified in the pre go live agreements are now in place. 		
Specific Action Required <i>(please choose one only)</i>	Information	Discussion	Assurance
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Recommendations	<p>Members are asked to:</p> <ul style="list-style-type: none"> - NOTE the content of this report and positive progress made in establishing the network governance structures. 		

Overview of the South Wales Trauma Network and the Operational Delivery Network (ODN), hosted by SBUHB

1. INTRODUCTION

The South Wales Trauma Network (SWTN) went live on September 14th 2020. The network covers South Wales, West Wales and South Powys. SBUHB hosts the ODN. The ODN team oversee the clinical and operational activity of network, from injury prevention through to the point of recovery. Major trauma is defined as Injury Severity Score (ISS) >8 (determined retrospectively). The network consists of the following:

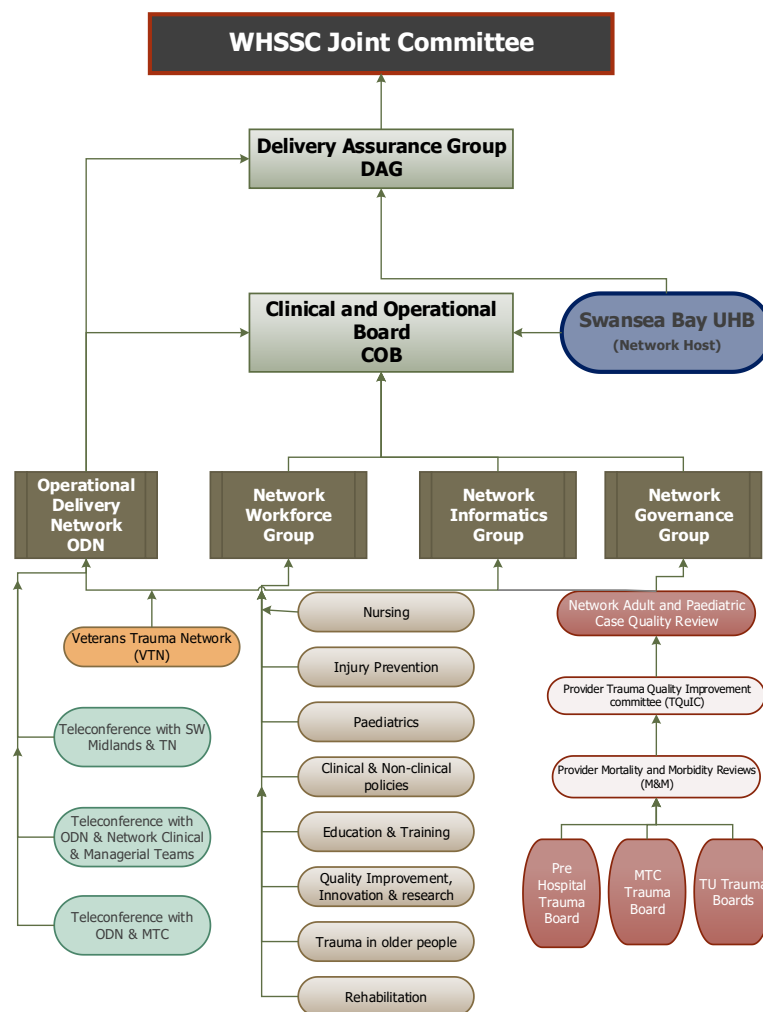
- An adult and paediatric Major Trauma Centre (MTC) – UHW, Cardiff.
- Trauma Unit with specialist services – Morriston Hospital, Swansea.
- Trauma Units (TUs) - UHW for its own population; The Grange University Hospital; Prince Charles Hospital, Princess of Wales Hospital; Glangwilli Hospital.
- Local Emergency Hospital – Royal Glamorgan Hospital.
- Rural Trauma Facilities – Wityhush and Bronglais General Hospitals.
- Welsh Ambulance Service Trust and EMRTS Cymru.

The ODN, MTC and orthoplastic services are commissioned by WHSSC. WAST and EMRTS Cymru are commissioned by EASC. The remainder of the service is commissioned by LHBs. SBUHB (as the host of the network) have an MOU in place with all organisations and the ODN discharges its clinical governance responsibilities and 'operational authority' (in relation to patient flows) through its clinical and operational board to WHSSC (via the SWTN Delivery Assurance Group). It also reports into the SBUHB SLT and Q&S Committee respectively. The role of SBUHB is described in detail in the MOU with organisations.

2. GOVERNANCE STRUCTURE

The network governance structure illustrated graphically below has a number of core elements:

- WHSSC Delivery Assurance Group (which includes EASC representation) – Quarterly, 1 held since go live.
- A Clinical and Operational Board – Bimonthly then quarterly after 6mths - 4 held since go live.
- Adult and Paediatric Case Quality Review (CQR)/Governance Group Meeting (full day) – Quarterly – 2 held since go live.
- Informatics Group and Workforce Group – due to meet in spring 2021.
- Weekly MTC/ODN meetings established. Monthly organisational/ODN meetings established. Regular meetings with Critical Care Network/North Wales Trauma Network in place.
- Weekly trauma MDT between MTC and network, rehab coordinator/major trauma practitioner/TARN coordinator/trauma desk forums.
- Other working groups in various stages of being established or reinstated.



Core governance activities include the following:

- Up to date clinical guidelines and policies (incl. summary infographics) – presented on Induction APP and SharePoint. This include a clinical governance and QI policy. All organisations have approved these through local Q&S committees.
- A network wide training and education plan (migrating onto an online platform currently due to COVID-19).
- Monitoring and surveillance systems (TRiDS – Trauma Datix – whilst each organisation has a responsibility for discharging their own governance responsibilities, the ODN has oversight of investigations (most crossing organisations), ensuring due process is followed and sharing of lessons across the network). Occurrence logs and daily organisational SITREPS.
- A GREATix system for identifying, celebrating and sharing areas of good practice.
- QI and research programme ('TEAR' Cymru with links to Swansea University and Improvement Wales).
- Reporting summary (see summary in Appendix 1 below). Each organisations is in the process of establishing their internal trauma governance structures incl. monthly Morbidity and Mortality reviews, feeding into a local Trauma Quality Improvement

Committees (TQUIC). Organisations report into the ODN quarterly and have reported once so far, since go live. This includes all local Mortality & Morbidity (M&M) proformas (standardised across the network), TARN dashboards and local reviews). A report is submitted to each organisation's SRO and leads providing feedback on what has been reported and a case study of best practice is shared from the network. This is done supportively to promote a culture of open, transparent, continuous quality improvement.

- The network has developed a standardised way of delivering M&M reviews locally which includes an assessment of preventability, opportunities for care improvement (OCIs), active/latent failures and actions arising for the network.
- Cases to be discussed at the CQR meetings are determined by the network governance lead, based on specific themes or cases which could provide relevant learning across the network. Any actions and learning from the CQR meeting are formulated at the governance meeting. A lessons learnt bulletin (see Appendix 2) is generated after the governance meeting based on the learning accumulated in the last quarter and disseminated to the network. Urgent matters arising between meetings are addressed through clinical and operational communications briefs. An example is illustrated below:

'A HB reported an M&M case being investigated as an SUI (which pre-dated the start of the network) of a misplaced chest drain leading to a significant complication. The case was discussed at the network CQR meeting and a number of actions were generated to prevent future occurrence. This included the ODN team supporting the production of a report on the case to inform the HB SUI investigation, the development/visibility of a chest drain checklist and monitoring pack in all chest drain trolleys across the network, develop a list of immediate complications and managements steps in the network chest drain guideline, improve training in chest drain insertion for surgical doctors and a video demonstrating technique and monitoring.'

This is an example of how the network supports the development of outputs from case and investigation reviews to inform guideline/policy development, training and education, QI and research and service redesign.

- A performance management dashboard in the process of being developed.
- A network risk and issues log.

The core membership of the ODN team consists of:

- Clinical Director
- Operational Manager
- Programme Manager
- Data Analyst and Admin Support
- Leads in governance, paediatrics, training and education, rehabilitation, QI and research
- Clinical Informatics Lead

The SWTN ODN is also in process of transferring the hosting arrangements for the Welsh Veterans Trauma Network (VTN) from Cardiff and Vale UHB. The referral email has been transferred to the ODN and all leaflets have been updated. The VTN governance paper is being updated to represent the change in host and the ODN will fully take over the service by the end of March 2021.

3. ACTIVITY DATA

The data presented below represents the first 3 months since go live. The data will mature over time, with the development of the network dashboard including oversight of the entire patient pathway.

South Wales Trauma Network Activity between 1st October and 31st December 2020. Data extracted from the Major Trauma Database on 7th January 2021

DEMOGRAPHICS

262 patients admitted to the MTC with an incident date between 1st Oct & 31st Dec 2020. Of these patients, 153 (58%) were adults, 17 (6%) were paediatric patients and 92 (35%) were aged 65+.

* Note that all this information has been extracted from the Major Trauma Database. It includes stays at UHW and Children's Hospital for Wales. It is worth noting that the Major Trauma Database is a new system and will take time to become fully operational.

Median age **54**
 67% male
 Busiest day: **18%** of incidents on a SUNDAY

* Note that these figures are based on a small number of cases and patterns are likely to change over time with more cases being added to the database

102 (39%) CAVUHB*
 61 (23%) ABUHB
 48 (18%) CTMUHB
 20 (8%) SBUHB
 21 (8%) HDUHB
 6 (2%) PTHB
 4 (2%) Out of network

* There were at least 82 MTC patients of the 102 CAV patients (this functionality was added after the beginning of October therefore not all patients are defined). Patient type can change during a patient's stay therefore a patient can change from a MTC patient to a TU patient.

N% MTC patients
 N% TU patients

* We won't have these figures until system integration has occurred across the network

255 (97%) NHS number assigned
 224 (86%) TARN eligible

Icons by icons8.com

MECHANISM OF INJURY

93 (36%) vehicle incident
 68 (26%) fall < 2m
 53 (20%) Fall > 2m
 15 (6%) stabbing & weapon
 1 (0%) suspected self harm
 1 (0%) blow(s)
 0 (0%) suspected high risk behaviour
 1 (0%) amputation (partial)
 4 (2%) sport
 2 (1%) inconclusive
 18 (7%) other
 6 (2%) alleged assault

DISTRIBUTION OF INCIDENTS



OUTCOMES

So far 241 discharges:

- 155 patients discharged home / temp accommodation
- 30 patients repatriated
- 18 patients DEATH
- 10 transferred for MTC specialist care
- 5 transferred for specialist rehab
- 11 not major trauma
- 2 police custody
- 10 local transfer no longer managed by major trauma

South Wales Trauma Network Activity between 1st October and 31st December 2020. Data extracted from Trauma desk data, sitrep and TARN

TRAUMA DESK, WAST & EMRTS

10 median number of calls connected per day, **8,374** incidents (including providing advice to crews, arranging transfers and checking the call stack).

122 trauma tool positive incidents
 96 silver trauma tool positive incidents

56% advice given MTC
 39% advice given TU/LEH/RTF
 20% advice given MTC
 78% advice given TU/LEH/RTF

* Rest of data advice not required/NA (6%)
 * Rest of data advice not required/NA (2%)

* Note that Trauma desk data is at incident level. Therefore, in an RTC, multiple patients would have the same incident number and we would not be able to differentiate between patients and trauma tool usage can only be recorded once

77 primary transfers to MTC involving EMRTS
 N primary transfers to MTC by WAST – this requires data linkage between Major Trauma Database and WAST data using NHS no

3 pathway 1 (Hyperacute) transfers (TTL was consulted for 2 of the cases and of these, 1 was refused by TTL)
 8 pathway 2 (Emergency) transfers (TTL consulted for 7 of the cases)
 2 pathway 3 transfers recorded (Isolated injuries requiring non-time critical specialist care)

2 incidents escalated to EMRTS Top Cover Consultant
 1 incident escalated to EMRTS ECCH

Icons by icons8.com

SITREP COMPLIANCE SINCE GO LIVE

9 days where sitrep was completed by all providers during Q3. Aim for 90% compliance.

WGH 98%
 WAST 98%
 UHW 90%
 MH 88%
 BGH 86%
 GGH 84%
 RGH+GUH 78%
 PCH 76%
 POW 71%
 EMRTS 70%
 RGH-CTM 65%

TARN DATA

Clinical report 3 indicated an average case ascertainment of 91% across the network (target 80+%) with no change from the year before and data accreditation was 92.3% (target 95+%) with no change from the previous year.

Trust / Hospital	01 September 2020 to 31 August 2020				01 September 2020 to 31 August 2020			
	N	E	C (%)	A (%)	N	E	C (%)	A (%)
Southwest Local Health Board	447	480-523	91.4-100+	90.8	219	480-523	43.0-10.0	88.5
North Hill Hospital	115	194-250	57.6-68.4	65	64	194-250	36.4-43.2	65.5
Royal Devon Hospital	334	296-380	100+	92	155	296-380	46.2-57.1	67.2
Cardiff and Vale University Health Board	997	708	85.1	96.6	680	708	96.7	96.2
University Hospital Limerick	34	35	96.2	96	23	35	96.3	97.9
University Hospital of Wales	119	894	91.9	97	497	894	96.2	98.5
Great Yarmouth Health Board	335	413-727	99.9-100+	90.4	499	413-727	94.9-100+	90.4
Princess Charles Hospital	289	246-292	99.9-100+	92	279	246-292	94.5-100+	90.7
Princess of Wales Hospital	215	213-294	100+	99	202	213-294	99-100+	90.5
Royal Glamorgan Hospital	116	194-250	96.7-100+	96	112	194-250	91.8-100+	89.9
Haywards Health Board	336	469-527	83.6-75.8	88.2	392	469-527	85.1-77.2	85.6
Brighton General Hospital	111	140-186	78.9-91.8	93	111	140-186	91-100+	92.8
Gangplank General Hospital	154	157-186	92.8-98.4	93	94	157-186	58.5-60	80.9
Widelybush General Hospital	49	147-175	28-33.8	63	38	147-175	58-66.5	76.4
Devonex Bay University Health Board	907	518-605	82.4-97.8	95.5	587	518-605	95.4-100+	91.7



4. RISK AND ISSUES LOG

There is a live risks and issues log that is presented at the clinical and operational board meetings.

There are currently 7 risks identified, 2 of which are red:

- COVID-19 recovery plans.
- Locum plastic surgeon post in SBUHB – although this will be reviewed as WHSSC has recently confirmed recurrent funding for this post.

There are 6 live issues - 2 at amber and 4 at red:

- Major trauma database not network wide. Additional informatics support given to C&V UHB to expedite the development of the database – this is now in progress.
- Current review of automatic acceptance policy in progress as some TRiDS identifying delayed MTC acceptance and requirement to define clinical escalation when differences of opinion arise.
- Lack of awareness of secondary transfer pathways - work plan developed and being rolled out.
- Nursing and therapy education in relation to the repatriation of complex trauma patients. Additional support given to network by education lead for MTC to support the roll out of network wide training plan.

Finally, one issue was reported to the first WHSSC DAG meeting in relation to access to specialist rehabilitation due to capacity constraints. Support is being provided by WHSSC SRO to resolve.

5. FINANCIAL IMPLICATIONS

There are no direct financial implications of this report. The ODN hold a budget that includes:

Pay

All staff are in post. A portion of the pay budget (saved through maternity leave) is being utilised to support a 6 month integration manager post with the aim of being able to roll out the major trauma database and patient held record across the network.

Informatics

All informatics are now in place, or have plans to come on line in time with the Programme Business Case.

Training and Education

The training and education budget is being utilised to develop the SWTN eLearning platform to allow all essential training to continue despite the restriction caused by COVID-19.

The ODN spend will be within budget. WHSSC has agreed some additional funding to support training and education and this is allocated for within spend. The network operational manager has monthly meetings with SBUHB finance team and has regular catch ups with the finance lead in WHSSC.

6. RECOMMENDATION

1. To note the content of this report and positive progress made in establishing the network governance structures.

APPENDIX 1 - Reporting Summary

South Wales Trauma Network

Serving the Population of South Wales, West Wales & South Powys

The aim of the South Wales Trauma Network is to enhance patient outcomes and experience, across the entire patient pathway from the point of wounding to recovery and includes injury prevention.

Reporting Schedule

Provider	HOUHB	SBUHB	CTMUHB	C&VUHB	ABUHB
M&M Summary Q2 but accepted cases following this period *will be discussed at CQR	3 cases submitted + M&M Lessons Learned Bulletin Themes 1 x Chest wall injury* 1 x Head Injury* 1 x Spinal injury	2 cases submitted Themes 1 x Traumatic cardiac arrest* 1 x Paediatric trauma	5 cases submitted (POW & PCH only) Themes 4 x Fall from standing height in silver patients *2 will be discussed 1 x Industrial accident	6 cases submitted Themes 4 x Paediatric Trauma *1 will be discussed 1 x Spinal repatriation* 1 x Head injury	3 cases submitted + Lessons Learned Bulletin Themes 1 x Paediatric trauma 1 x Head Injury 1 x Chest wall injury
Total TRIDx Q2 (14/09/2020-30/09/2020)	Themes: 0	Themes: Clinical 1	Themes: Pathway awareness 1	Themes: 3 x Clinical, 1 x Pathway 4	Themes: Repat 1
TARN Q1 Dashboards (pre go live Apr-Jun 2020) Case Ascertainment TU National Mean = 84.5% MTC National Mean = 83.5% *Note decline in major trauma during national lockdown	100+% Numerator 51 Denominator 41	83.2% Numerator 144 Denominator 173	PCH 87.8%, POW 75.4% Numerator PCH 65, POW 43 Denominator PCH 74, POW 57	52.2% Numerator 95 Denominator 182	100+% Numerator 115 Denominator 82
Submissions within target deadline (MTC: 25 days, TU: 40 days) TU National Mean = 45.6%	41.5% Numerator 17 Denominator 41	10.4% Numerator 18 Denominator 173	PCH 66.2%, POW 70.2% Numerator PCH 45, POW 40 Denominator PCH 74, POW 57	(Part of BPT Compliance)	
Data Accreditation TU National Mean 94.3% MTC National Mean 94.7%	93.4% Numerator 47.6 Denominator 51	94.2% Numerator 135.6 Denominator 144	PCH 94.1%, POW 91% Numerator PCH 61.2, POW 35.1 Denom PCH 65, POW 43	96.3% Numerator 91.5 Denominator 95	94.6% Numerator 108.8 Denominator 115
TUs deliver Consultant led trauma teams within 30 mins for ISS > 15 National Mean 19.1%	21.1% Numerator 4 Denominator 19	31.1% Numerator 14 Denominator 45	PCH 8.3%, POW 0% Numerator PCH 2, POW 0 Denominator PCH 24, POW 8	NA	0% Numerator 0 Denominator 26
TUs deliver grade >= STR3 led trauma teams on arrival National Mean 18.5%	14.3% Numerator 7 Denominator 49	29.9% Numerator 38 Denominator 127	PCH 27.7%, POW 11.6% Numerator PCH 18, POW 5 Denominator PCH 65, POW 43	NA	10.5% Numerator 11 Denominator 105
Proportion of directly admitted patients receiving CT scan within 60 mins of arrival at TU National Mean 24%	21.4% Numerator 6 Denominator 28	51.2% Numerator 41 Denominator 80	PCH 49%, POW 47.8% Numerator PCH 24, POW 11 Denominator PCH 49, POW 23	NA	22% Numerator 13 Denominator 59
Proportion of patients with ISS > 8 that have a rehab prescription completed National Mean 62.6%	7.1% Numerator 3 Denominator 42	97.5% Numerator 116 Denominator 119	PCH 17%, POW 100% Numerator PCH 9, POW 27 Denominator PCH 53, POW 27	NA	100% Numerator 89 Denominator 89
BPT Compliance with Level 1 National Mean 83.3%	NA	NA	NA	0% Numerator 0 Denominator 83	NA
BPT Compliance with Level 2 National Mean 44.8%	NA	NA	NA	0% Numerator 0 Denominator 48	NA
Proportion of patients with ISS > 15 with trauma scan < 30 mins National Mean 36.3%	NA	NA	NA	21.9% Numerator 7 Denominator 32	NA
Surgical evacuation of a significant SDH/EDH < 4 hours National Mean 58.8%	NA	NA	NA	58.3% Numerator 7 Denominator 12	NA

Rhydwraith Trauma
 De Cymru
 South Wales
 Trauma Network

Aelwyl bywydus
 Gwella carlysiadau
 Genedl gwanhaeth

Swing Lives
 Improving outcomes
 Making a difference

Contact the South Wales Trauma Network

✉ TraumaNetwork@wales.nhs.uk

☎ 01792 516686

🇬🇧 Wales Trauma Network

🐦 @SWTraumaNetwork

Image by iStock.com

South Wales Trauma Network

Serving the Population of South Wales, West Wales & South Powys

The aim of the South Wales Trauma Network is to enhance patient outcomes and experience, across the entire patient pathway from the point of wounding to recovery and includes injury prevention.

Reporting Schedule

Provider	HDUHB	SBUHB	CTMUHB	C&VUHB	ABUHB
Number of Pathway 1 & 2 transfers (source: Trauma desk data)	0	2	0	0	1
Number of delayed transfers (TRID) 14/09/2020-30/09/2020	0	0	0	0	0
Number of Pathway 3 transfers (source: Trauma desk data and Major Trauma Database)	0	0	0	0	0
Number of delayed transfers (TRID) 14/09/2020-30/09/2020	0	0	0	0	0
The number of patients with ISS > 15 managed definitively within a TU/LEH/RTF Q1 April-June 2020	GGH 12 BGH 12	MH 38	PCH 20 POW 8 RGH 44 (ISS>8)	NA	NHH 2 RGH 28
Patients where repatriation from MTC exceeds 24hrs, 48hrs and 72hrs hours from referral (TRID), 14/09/2020-30/09/2020	0	0	0	0	1 x delayed repat <72h
Trauma Risk Register Received?	✓	✗	✗	✓	✓
Themes from risk register relating to SWTN	<p>2 x Service Related:</p> <ul style="list-style-type: none"> Repatriation of patients with complex neurological injuries Spinal pathway clarification <p>1 x Recruitment:</p> <ul style="list-style-type: none"> Clarify over rehab consultant 0.4 WTE <p>4 x Operational Delivery</p> <ul style="list-style-type: none"> Following of pathways by local teams Appropriate flows of patients, WAST crews from North less aware of Triage tool and Trauma Desk Implementation of Network Guidelines Potential impact of COVID <p>3 x IT</p> <ul style="list-style-type: none"> TARN data (GGH & WGH) – low ascertainment level Major Trauma Database – functionality/information flow Activity database/sitrep <p>2 x Comms & engagement</p> <ul style="list-style-type: none"> COVID impact on delivery of training & dissemination of network info Clinical team awareness of major trauma pathways 			<p>3 Service Related</p> <ul style="list-style-type: none"> Theatre capacity for major trauma has been reduced PTU - Lack of rehabilitation space on A4 Lack of identified office space for MTC Operational and Clinical team <p>2 x Recruitment:</p> <ul style="list-style-type: none"> Recruitment to essential posts Rehabilitation consultant cover - MTC and TU cover required <p>2 x Operational Delivery</p> <ul style="list-style-type: none"> Reduced patient flow from the MTC if delays with repatriation Ability to maintain specialist services outside of the MTC 	<p>Service Related</p> <ul style="list-style-type: none"> Ensuring all ED nurses at GUH are meeting the minimum requirements for nurse trauma training Repatriation of patients with Traumatic Brain Injuries Problems with full trauma team attendance at trauma calls due to Vocera issues Trauma documentation not being consistently used for major trauma patients Radiology reports occasionally lacking level of detail required Step down of patients with mainly musculoskeletal trauma to eLGHs Lack of necessary equipment to facilitate splintage of femoral fractures <p>Recruitment</p> <ul style="list-style-type: none"> Lack of Rehab Consultant dedicated sessions <p>Operational Delivery</p> <ul style="list-style-type: none"> Lack of clarity for ABUHB clinicians as to major trauma referral pathways <p>Comms & Engagement</p> <ul style="list-style-type: none"> Engagement of specialties with the MT governance processes



Rhwydwlth Trauma
De Cymru
South Wales
Trauma Network

Achub bywydau
Gwella carlyriadau
Gwneud gwahaniaeth



Saving lives
Improving outcomes
Making a difference

Contact the South Wales Trauma Network

TraumaNetwork@wales.nhs.uk
01792 516686

Wales Trauma Network
@SWTraumaNetwork

South Wales Trauma Network

Serving the Population of South Wales, West Wales & South Powys

The aim of the South Wales Trauma Network is to enhance patient outcomes and experience, across the entire patient pathway from the point of wounding to recovery and includes injury prevention.

Reporting Schedule

Provider	WAST	EMRTS
M&M Summary		
Total TRIDS 14/09/2020-30/09/2020	2	0
	Themes: Non contact of Trauma Desk	0
Number of cases taken directly (triage positive/equivocal) to the MTC (incl. number where local hospital bypassed) and to TU/RTF/LEH	Dashboards in development	
Response times for ambulance for all MTC transfers coordinated by the trauma desk (hyperacute, emergency, urgent)	Dashboards in development	
Response times from booking with discharge and transfer service to ambulance being made available	Dashboards in development	
TXA given within 1 hour and >1 hour	Dashboards in development	



Rheolydd Trauma
De Cymru
South Wales
Trauma Network

Achub bywydau
Giemla carlyniadau
Genusd gwelwriaeth



Saving lives
Improving outcomes
Making a difference

Contact the South Wales Trauma Network

TraumaNetwork@wales.nhs.uk
01792 516686

Wales Trauma Network
@SWTraumaNetwork

Source: traumal.com

APPENDIX 2 - Example lessons learnt bulletin (Jan 2021)



Rhwydwaith Trawma
De Cymru
South Wales
Trauma Network

TraumaNetwork@wales.nhs.uk

01792 516666

SWTtraumaNetwork

Wales Trauma Network

Lesson Learnt Bulletin..

Issue 1 – October 2020

To support the governance arrangements of the network, this Lessons Learnt Bulletin provides a summary of the key issues identified from the inaugural Network Governance Day held on 16th September 2020. We hope you find it useful and informative. This bulletin references network clinical guidelines, policies and Infographics (accessible on Induction APP and SharePoint).

NOTE: All issues raised pre-date the start of the South Wales Trauma Network and should be interpreted in this context.



Haemorrhagic Shock and Traumatic Brain Injury

- It is important that the principles of Damage Control Resuscitation (OG07) are following incl. restrictive volume resuscitation; however, as guided by NICE guidance (2016), in the presence of haemorrhagic shock and traumatic brain injury, a less restrictive volume resuscitation approach should be adopted to maintain cerebral perfusion.
- The network TRAUMATIC mnemonic should be used as an aide memoire, and displayed in resuscitation areas (incl. ED, emergency theatre and ITU).
- It is appropriate for Damage Control Surgery (DCS) to be performed locally in order to provide haemorrhage control, however, it must be available within 30 minutes of the decision being made. However, if DCS is not available locally or achievable within this timeframe, a hyperacute transfer should be arranged through the MTC TTL (by calling the regional trauma desk).
- The establishment of the SWTN and MTC acceptance policy (P01) should improve the process of onwards access to specialist care.
- Once DCS has been performed locally and physiological stability has been achieved, in the presence of major trauma, the patient should be discussed with the MTC TTL (by calling the regional trauma desk) and the patient transferred to the MTC (emergency transfer). If the patient has not had a whole body CT, in the presence of major trauma, this should ideally be undertaken prior to transfer to the MTC. Timing of this transfer depends upon a number of factors incl. physiological stability, and requirement for urgent interventions at the MTC (e.g. neurocritical care).



Repatriation and Communication

The establishment of the SWTN, major trauma database and the Automatic Repatriation Policy (P02) should improve the process of repatriation. However, this is dependent upon the following:

- Familiarity of key members of the team across the region (incl. major trauma practitioners/rehab coordinators) with the policy incl. the importance of MDT-to-MDT and clinical handover at the point of repatriation.
- Importance that the weekly network MDT meetings specifically highlights patients that are likely to be repatriated within the next 7 days.
- Ensuring that for patients that are likely to be repatriated from the MTC to a local 'landing pad' or community, within the next 7 days, that the major trauma database is updated and the rehabilitation prescription is fully updated—it is a live document.
- Importance of ensuring accurate documentation on database, in particular injury pattern and rehabilitation needs.
- Handover to the receiving hospital should include information incl. special circumstances (e.g. for a spinal patient information about logrolling instructions and use of specific spinal braces and collars).

Chest Drain Insertion

- There are number of interventions at network level to improve chest drain insertion and make this procedure as safe as possible.
- The network clinical guidance – chest drain insertion (CG05) provides a useful starting point. It includes an invasive procedure record including a pre-procedure checklist, how to secure the drain and guidance on how to remove the drain. Copies of this should be made available in all hospital clinical areas undertaking this procedure (incl. in chest drain packs). The network patient care record will provide a section on chest drain monitoring, highlighting potential evolving complications discussed in the network guidance.
- Consenting patients for invasive procedures is an important pre-procedure step and must take into consideration of the patient's mental capacity (ability to consent) and Power of Attorney (where possible).
- The network training and education programme will include a session on chest drain insertion including management of complications.
- It is recognised that there is a potential gap in training for surgical doctors in this procedure (as experienced by other trauma networks). It is vital that as part of the network development, this is taken forward, but this is not a replacement for local educational initiatives undertaken by clinical leads and surgical teams.

Our mission statement:

'Saving Lives, Improving Outcomes, Making a Difference'

Paediatric Trauma

- Children often self-present to EDs and Minor Injury Units (MIUs) with major trauma. For EDs, this presents an opportunity to ensure triage nurses are familiar with the network trauma team activation criteria and for MIUs to be able to access support from the regional trauma desk.
- In the presence of the network, discuss with the MTC TTL via the regional trauma desk. The MTC TTL acting as a single point of access in this context, reducing the need for multiple calls to get a patient accepted.
- MIUs (not co-located in an ED) have also been provided copies of trauma team activation criteria should a child present and if triggers, then advice should be sought from the trauma desk to guide disposition. In addition, WAST should be mobilised using the normal process.

Rib Fractures and Rib Fixation

- ⇒ Patients who present with isolated multiple rib fractures are a common presentation. Most can be managed conservatively and adequately without transfer to a specialist centre. Older patients are at risk of significant chest wall trauma (incl. rib fractures) with relatively benign mechanisms of injury.
- ⇒ For all patients with a chest wall injury a risk stratification tool should be adopted including specific interventions to minimise morbidity or mortality (see CG06).
- ⇒ Rib fixation forms an important part of the analgesic ladder for rib fractures in selected patients.
- ⇒ Polytrauma patients with multiple rib fractures or those that ventilated with a flail chest will be transferred direct to the MTC or via hyperacute/emergency transfer to the MTC. The MTC will discuss with the thoracic surgical service to be considered for rib fixation.
- ⇒ Whilst there is presently no dedicated rib fixation service in the region, as a guide, the following groups of patients should be discussed with the nearest thoracic surgical service:
 - >3 rib fractures ribs; multiple comorbidities; difficulty weaning from ventilator, failure of regional and systematic analgesia strategies and thoracotomy having been undertaken for thoracic injuries.
- ⇒ The above represents trigger points for discussion with respective thoracic teams. The outcome could be the following:
 - Patient accepted for rib fixation and transferred.
 - Patient not requiring rib fixation and to be continue to managed locally. The admitting hospital to contact thoracic team if any change in clinical condition, to reassess indications.
- ⇒ If imaged locally, a CT thorax (3D reconstruction) should be sent to the specialist centre before referral (incl. hyperacute and emergency transfers).
- ⇒ The network will continue to monitor any delays in transfer for rib fixation, with further work required to develop a regionalised rib fixation service, please report delays.



Golden Nuggets of Learning

- ⇒ All hospitals across the network should now follow agreed criteria for trauma team activation (see infographic) – the opportunity should exist to activate a trauma team following delayed presentation to the ED. The lack of trauma team activation often leads to loss of situational awareness of speciality teams and inherent delays in decisions related to ongoing management and disposition.
- ⇒ It is essential that where trauma team activation occurs out of hours and at weekends (non-MTC setting), the ED consultant is called to discuss the clinical condition of the patient. A judgment can be made if the consultant then needs to attend in person or guide management/disposition remotely. This is requirement of hospital trauma operational policies. For patients with significant injuries, the consultant should attend in person.
- ⇒ Time to transfer to the MTC should be reduced through use of the MTC acceptance policy (P01) and accessing the MTC TTL (via the regional trauma desk). Safe transfer of the patient takes priority over speed – involve EMRTS or local transfer team early!
- ⇒ The network guideline on open fractures (CG11) provides a useful reminder of initial management and disposition of these injuries. ED management consists of removal gross contamination, take a photograph of wound, application of a saline soaked gauze, reduction under procedural sedation and splintage. IV antibiotics and check tetanus status. Remember, open lower limb fractures are still referred to Morriston Hospital in new world.
- ⇒ Finally, clinical assessment of the pelvis involves palpation, checking for swelling/bruising (scrotum/medial thighs), and leg length discrepancy, but not springing the pelvis!



Please note that the next Network Governance Day will be held on 17th December 2020

Governance and Assurance		
Link to Enabling Objectives <i>(please choose)</i>	Supporting better health and wellbeing by actively promoting and empowering people to live well in resilient communities	
	Partnerships for Improving Health and Wellbeing	<input type="checkbox"/>
	Co-Production and Health Literacy	<input type="checkbox"/>
	Digitally Enabled Health and Wellbeing	<input type="checkbox"/>
	Deliver better care through excellent health and care services achieving the outcomes that matter most to people	
	Best Value Outcomes and High Quality Care	<input checked="" type="checkbox"/>
	Partnerships for Care	<input type="checkbox"/>
	Excellent Staff	<input type="checkbox"/>
	Digitally Enabled Care	<input type="checkbox"/>
	Outstanding Research, Innovation, Education and Learning	<input type="checkbox"/>
Health and Care Standards		
<i>(please choose)</i>	Staying Healthy	<input type="checkbox"/>
	Safe Care	<input type="checkbox"/>
	Effective Care	<input type="checkbox"/>
	Dignified Care	<input type="checkbox"/>
	Timely Care	<input checked="" type="checkbox"/>
	Individual Care	<input type="checkbox"/>
	Staff and Resources	<input type="checkbox"/>
Quality, Safety and Patient Experience		
Delivery of a major trauma network that fits with the ethos of saving lives, improving outcomes and making a difference.		
Financial Implications		
There are no financial implications from this paper. The ODN is hosted by SBUHB with the budget being set by WHSSC. The current budget has been guaranteed for 5 years from April 2020.		
Legal Implications (including equality and diversity assessment)		
There are no know legal or equality and diversity impacts over and above those developed within the original PBC.		
Staffing Implications		
There are no current staffing implications. The ODN team is fully recruited into. The programme manager has recently returned full time following maternity leave. The network manager is currently also supporting the vaccination programme and has been released 50% to the All Wales Programme. This is being reviewed in 3/12. WHSSC have agreed to support utilising the surplus pay spend that this brings to recruit into a nursing lead post for the network (2 days a week).		
Long Term Implications (including the impact of the Well-being of Future Generations (Wales) Act 2015)		
<ul style="list-style-type: none"> ○ Long Term – The SWTN business case incorporates a 5 year plan for development of the network. ○ Prevention – The development of the injury prevention working group will support the prevention of injuries. ○ Integration – Clinical pathways are delivered across the network. 		

<ul style="list-style-type: none"> ○ Collaboration – The SWTN works in collaboration with all HBs in Wales as well as with WAST. ○ Involvement – all HBs are involved in the network alongside 3rd sector groups. 	
Report History	First report from the ODN into the Quality and Safety Committee.
Appendices	Appendix 1 Appendix 2