FOR INFORMATION

GIG CYMRU NHS WALES | Bwrdd Iechyd Prifysgol Caerdydd a'r Fro | Cardiff and Vale University Health Board

AGENDA ITEM 3.3

22nd February 2011

Ambulance Handover and Turnaround Times (TRT)

Report of	Director of Innovation and Improvement
Paper prepared by	Knowledge Management and Improvement Skills Development Manager Divisional Manager - Medicine
Executive Summary	**Introduction** The UHB's Emergency and Assessment Units are committed to turning around ambulance crews as soon as possible to release them back out to attend to polling emergency calls. The AOF (2010/11) target, specifying that all ambulance crews should be able to handover to nursing staff and released within 15 minutes of arrival has always presented a challenge to the unit, particularly at times when capacity and flow of patients out of the unit is compromised. The Unscheduled Care Directorate acknowledges that there have been difficulties with the nursing staff engaging in recording handover for several reasons and also found it difficult to maintain the AOF target as a key priority in what has been a challenging three years for Unscheduled Care in terms of demand, medical staff availability and nursing retention. **Performance** To improve performance a number of

initiatives have been in place over the last 12 months to try and improve recording of the 15 minute handover. The informal feedback from WAST is that release of crews at UHW is timely and well organised, with a willingness by most nursing staff to actively manage any corridor waits and release crews as readily as they can. The release of ambulance crews is dependant on physical capacity to offload patients onto hospital trolleys under the care of EU nurses, the number of patients exiting the hospital, and nature of emergency pressures in the EU and assessment areas. Over the recent months this has been extremely challenging.

Analysis

The more appropriate measure for effectiveness at releasing crews is that of turnaround time, which can be measured and policed by WAST itself through its GPS system.

Hours lost due to Ambulance TRT over 20 mins

Site	November	December
UHL	81:26:12	97:48:22
UHW	501:40:08	601:52:01
Total	583:06:20	699:40:23

At an aggregate level there is no significant difference in the proportion of ambulance attendances that have a TRT of less than 20 minutes and, given the daily pattern throughout December, it would imply that typically 28% of ambulances achieve a TRT of less than 20 mins. This again suggests that current factors and/or processes will continue to deliver this level of achievement. However, there is a pattern at the end of December that shows a lower achievement

	of the 20 min TRT figure; although overall the hours lost don't match that pattern. Looking at the actual attendance data provided by WAST the 30th and 31st of December have an unusually high number of minutes lost, also the 4th of December had an unusually high number, this additional time plus the extra 22 hrs lost because of the extra day in December when compared to November accounts for the aggregate difference between the two months. Whilst those days explain the difference between November and December, overall patterns are generally stable and therefore, the data suggests that there are more pressing underlying opportunities in identifying and changing factors and/or process that result in almost one ambulance a day being permanently unavailable. Identifying these and making sustainable changes to process will be the only way to improve the current situation. **Actions** A number of actions are in place to improve the current situation and the EU has developed an internal Operational Policy to support the nurse in charge/majors assessment nurse in their decision making about how best to safely manage patients in the corridor and release crews. A capital programme to change the 'footprint' of EU is being implemented during the summer 2011, which will improve the ability to manage patient flow within EU. A joint improvement plan with WAST is being developed, taking account of the whole system risk to patients and any whole system additional cost associated with the process changes that need to be implemented.

FOR INFORMATION

Action/Decision required	To support the suggested recommendations
Link to other Board Committee (s) and sub-committees	
Link to Standards for Health Services in Wales	Ambulance Turnaround target of 20 mins
Link to Public Health Agenda	Ambulance turnaround times have been the focus of recent media attention
Link to UHB Strategic Direction and Corporate Objectives / Legislative and Regulatory Framework	The achievement of AOF targets
Link to relevant evidence base	

FOR INFORMATION

Ambulance Handover and Turnaround Times

INTRODUCTION

The UHB's Emergency and Assessment Units are committed to turning around ambulance crews as soon as possible to release them back out to attend to polling emergency calls.

The AOF (2010/11) target, specifying that all ambulance crews should be able to handover to nursing staff and released within 15 minutes of arrival has always presented a challenge to the Unit, particularly at times when capacity and flow of patients out of the Unit is compromised. The Unscheduled Care Directorate acknowledges that there have been difficulties with the nursing staff engaging in recording handover for several reasons, including: prioritising clinical patient care first; the functional IT difficulties experienced in the recording of handover; concern about the perception that they are policing their WAST colleagues in recording handover; and the compromising geography of the department which is not conducive to establishing where/when crews have been delayed or indeed released. The Unscheduled care directorate has also found it difficult to maintain the AOF target as a key priority in what has been a challenging three years for Unscheduled Care in terms of demand, medical staff availability and nursing retention.

Performance

A number of initiatives have been in place over the last 12 months to try and improve recording of the 15 minute handover. These have included senior staff forums attended by the Nurse Director, meetings with the RCN to encourage the compliance with this target (as it is ultimately designed to improved care and patient safety), the allocation of floor managers to encourage recording, and the agreement from clerical staff to support recording. All have had some impact but this has not been sustained.

The informal feedback from WAST is that release of crews at UHW is timely and well organised, with a willingness by most nursing staff to actively manage any corridor waits and release crews as readily as they can. The EU will never ask crews to keep patients in the back of their ambulances outside the EU unless there is a very specific cross-infection issue or a bariatric patient. In such instances, these cases are prioritised.

Demand and Capacity

The release of ambulance crews is dependant on physical capacity to offload patients onto hospital trolleys under the care of EU nurses, the number of patients exiting the hospital, and nature of emergency pressures in the EU and assessment areas.

Over recent months maintaining patient flow has been extremely challenging. The increased demand and dependency of the patients being admitted was notable in November, but December and January were compromised by the extreme weather and then the unprecedented demand of H1N1 and influenza B.

Critical Care capacity was put under extreme pressure, which resulted in those patients who would have normally been accepted as requiring Level 2 (High Dependency Unit) care being kept in the Emergency Unit for many hours where the staff and facilities were better able to cope with these sicker patients. This compromised flow.

The Division of Medicine cancelled elective outpatient activity for a two week period in order to ensure daily ward rounds (including weekends) in order to review patients for discharge, but also the critically ill patients on the wards, thus supporting the junior doctors who were extremely stretched at this time.

At this time, the assessment unit also lost significant numbers of staff to flu. Temporary staff were made available, but their knowledge and skill was not as effective as established staff thus further compromising flow.

Turnaround Times

The more appropriate measure for effectiveness at releasing crews is that of Turnaround Time, which can be measured and policed by WAST itself through its GPS system.

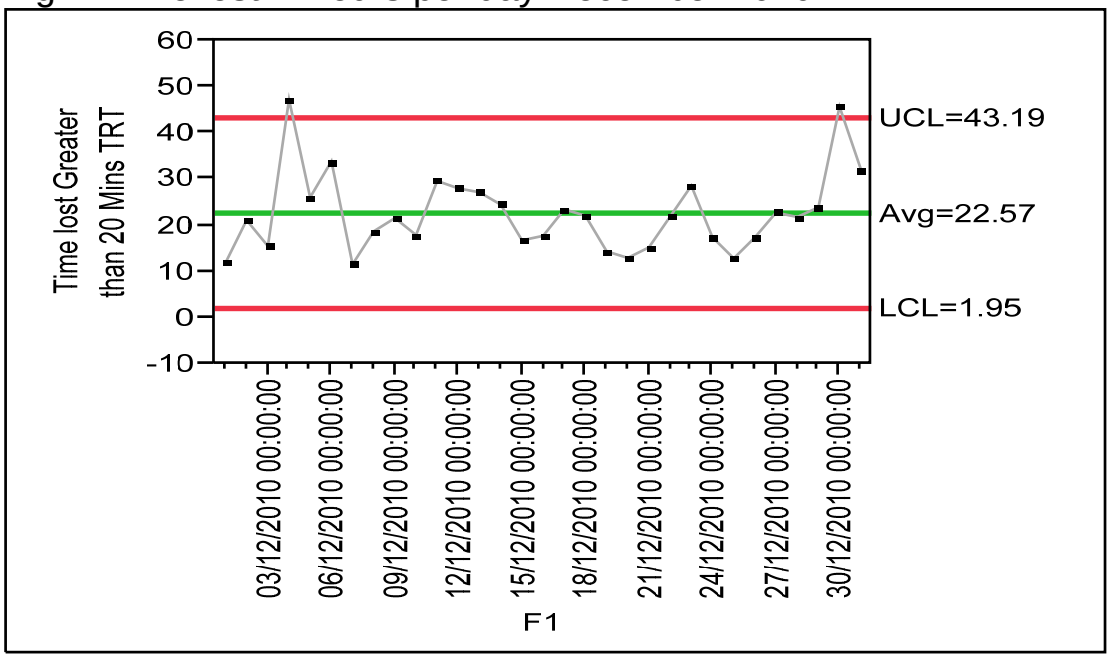
The following analysis has been completed using data provided by WAST. The data is simply the daily breakdown of attendances throughout December.

Hours lost due to Ambulance TRT over 20 mins

Site	November	December
UHL	81:26:12	97:48:22
UHW	501:40:08	601:52:01
Total	583:06:20	699:40:23

Given the constraints of the data (a short period to establish whether this represents normal activity) it suggests that currently 22 hours a day are lost to TRT exceeding 20 minutes.

Fig 1. Time lost in hours per day December 2010



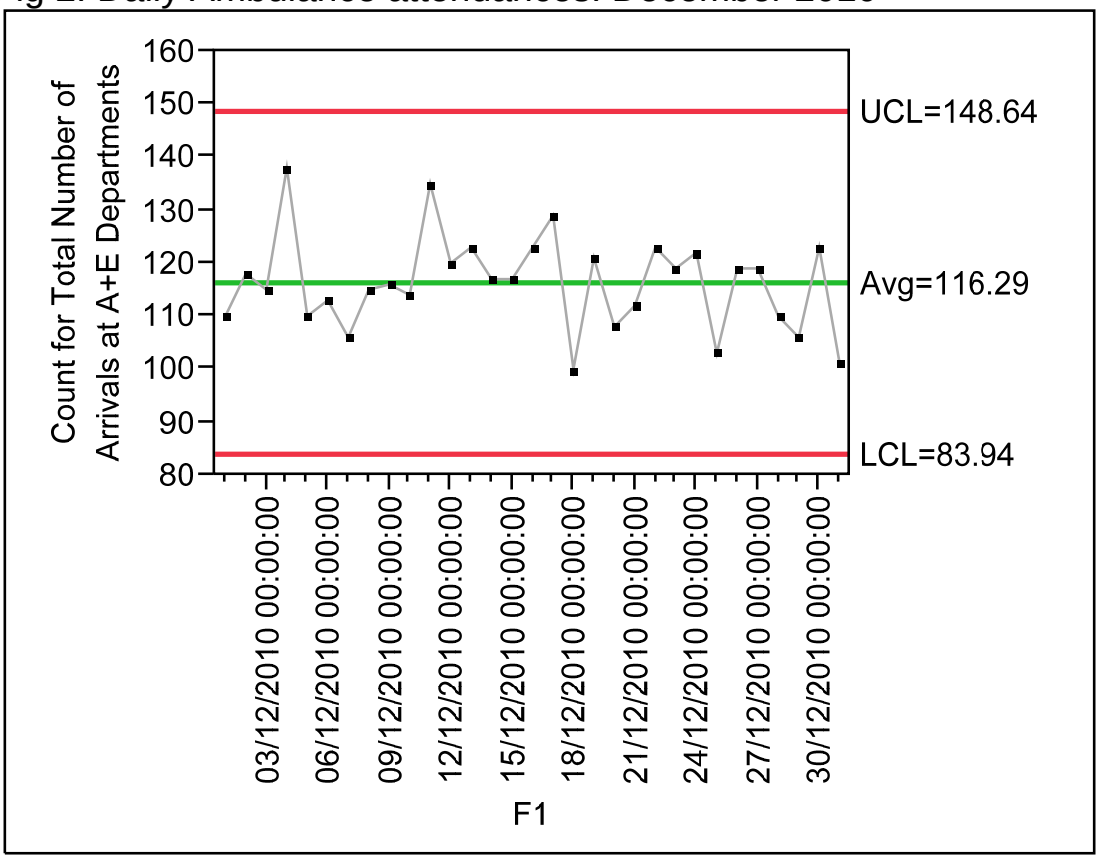
Source: WAST

Whether December was significantly different to November or the difference is purely down to variation requires a larger dataset. Either way, the analysis indicates that there is significant opportunity to improve processes that will facilitate improved ambulance TRT and subsequently increase ambulance availability and response times in the community. As the data for December is generally stable it would suggest that current processes and factors result in one ambulance and crew being permanently unavailable to respond. Identifying the factors and processes that are the root cause of this problem and implementing changes to them will be the only way to improve the current position.

Ambulance attendances

Site	November	December
UHL	476	617
UHW	2,820	2,988
Total	3,296	3,605

Fig 2. Daily Ambulance attendances. December 2010



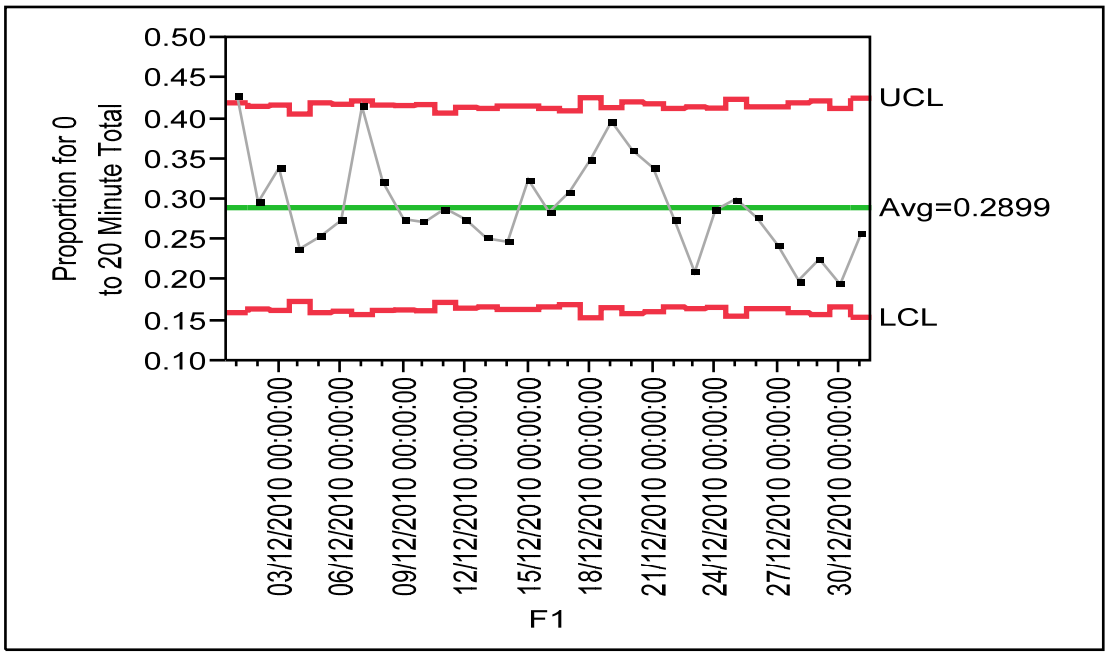
Source: WAST

The total number of ambulance attendances at UHL and UHW is a stable process averaging 116 attendances per day. As with hours lost, the analysis cannot determine whether that number is unusual or part of the normal process. Assuming it is indicative of the normal pattern of attendance, then processes need to be designed to be able to turnaround at least 116 ambulances a day within 20 minutes. There were no unusual patterns in attendance within the month that might indicate a reason for any increased delays.

Less than 20 minutes

Site	November	December
UHL	32.56%	34.85%
UHW	27.45%	27.78%
Total	28.19%	28.99%

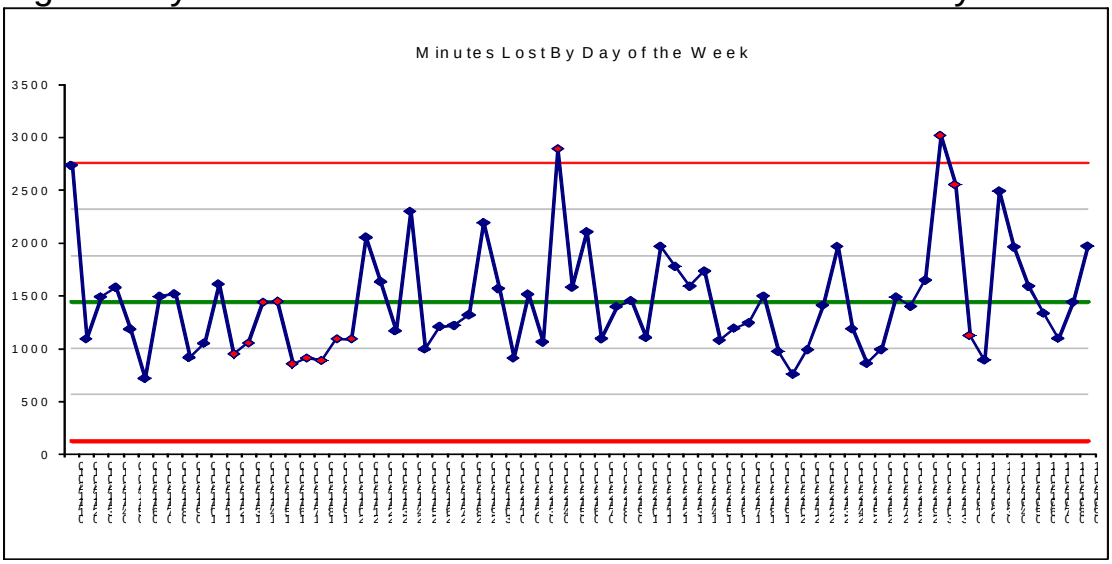
Fig. 3 Daily Proportion of Ambulances that have a TRT of less than 20 mins



Source: WAST

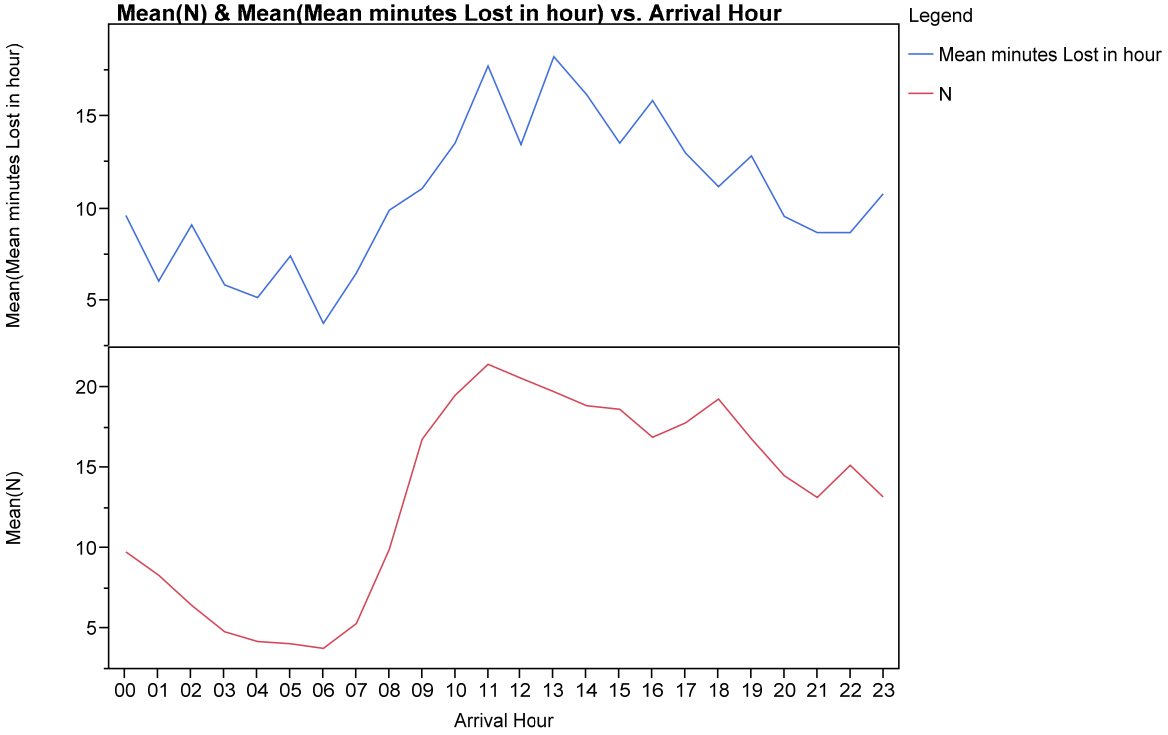
At an aggregate level there is no difference in the proportion of ambulance attendances that have a TRT of less than 20 minutes and, given the daily pattern throughout December, it would imply that typically 28% of ambulances achieve a TRT of less than 20 minutes. This again suggests that current factors and/or processes will continue to deliver this level of achievement. However, there is a pattern at the end of December that shows a lower achievement of the 20 minute TRT figure; although overall the hours lost don't match that pattern. Looking at the actual attendance data provided by WAST, the 30th and 31st of December have an unusually high number of minutes lost, also the 4th of December had an unusually high number, this additional time plus the extra 22 hrs lost because of the extra day in December when compared with November accounts for the aggregate difference between the two months.

Fig. 4 Daily Minutes Lost 1st November 2010 to 9th January 2011



Focusing on the 30th and 31st of December the total amount of time lost was 5570 minutes (93 hours) or two ambulances each day. This time shifted from being lost at UHW on the 30th to UHL on the 31st, which corresponds with a shift in the emergency 'take'. This suggests that the UHB's ability to turnaround ambulances in a timely manner is related to how busy the departments are.

Fig. 5 Average minutes lost per attendance by hour of the day and average attendances by hour of the day December 2010 UHW



Source: WAST & EU Workstation

Figure 5 demonstrates that the pattern of attendance in the EU is mirrored by the pattern of minutes lost per attendance, which confirms that TRT is affected by how busy the department is.

Whilst those days explain the difference between November and December, overall patterns are generally stable and therefore, the data suggests that there are more pressing underlying opportunities in identifying and changing factors and/or process that result in almost one ambulance a day being permanently unavailable. Identifying these and making sustainable changes to process will be the only way to improve the current situation.

Actions taken

The EU has an allocated floor manager (9-8pm Monday– Friday and at weekends when there are pressures). There is EU Consultant presence from 9am -10pm daily, and two Consultants until 10pm at the weekend.

When there are WAST delayed crews in the corridor there is escalation to the Patient Access Team and the Divisional Management Team. Discharge rounds are expedited and outlying wards are identified and an assessment is made as to whether the take can be sent to UHL or other LHBs asked for support.

The UHB has adopted a policy of sending suitably assessed and safe patients on trolleys to wards where there are imminent discharges; in order to relieve pressures in the corridor and release WAST crews. This has been successful and has put pressure on the wards to expedite discharge.

An additional measure has been implemented over the last few difficult months, whereby a Consultant Physician has fielded the GP emergency medical referrals and wherever possible triages these patients out to appropriate alternative services. This has been able to deflect 17-50% of potential admissions and is being implemented permanently.

The Acute Hospital Services Division has a number of work streams which are demonstrating improvement in both time of day discharge and accuracy of predicted date of discharge. There are streams of work, particularly within the Division of Medicine, that are designed to improve <72 hour discharge, management of 14-20 day patients and the extremely complex discharges. All work streams have started to deliver

an improvement in reducing length of stay which will ultimately reduce corridor waits.

Future Actions

The EU has developed an internal Operational Policy to support the nurse in charge/majors assessment nurse in their decision making about how best to safely manage patients in the corridor and result crews. This is currently being agreed with senior colleagues and WAST.

The Division of Medicine Operational Policy for 2011/12 describes a selected intake to UHW and UHL which should support more timely emergency assessment by the appropriate specialist, and ultimately better patient flow in the assessment and emergency units. There is a whole system redesign and plan of modernisation to support extended working to improve timely and effective patient assessment and decision making by senior staff to maximise flow.

A capital programme to change the 'footprint' of EU is being implemented during the summer 2011, which will improve the ability to manage patient flow within EU.

A joint improvement plan with WAST is being developed, taking account of the whole system risk to patients and any whole system additional cost associated with the process changes that need to be implemented.

CONCLUSION

The ability to turnaround Ambulances in a timely manner is linked to how busy the departments are and their ability to match capacity with demand. The departments are affected by the UHB's ability to effectively flow patients through the system they are in, whether that is within EU or further downstream in assessment units and wards and further across the whole health and social care system. Sustained improvement in ambulance TRT times will only be realised when patient flow is improved. Putting processes in place to facilitate timely turnaround at the front door is simply putting a patch on a symptom of a wider whole system problem. Poor ambulance TRT is a symptom of patient flow problems and the inability to match appropriate capacity with demand, with the 30th and 31st December, in particular, illustrating the effect.

FOR INFORMATION

RECOMMENDATION

The Committee is asked to **SUPPORT** the current actions and recognise that poor ambulance TRT is a symptom of patient flow issues. TRT will improve as efforts are continued to be focussed to match appropriate capacity with demand to create a system that delivers better flow in both the EU and across the wider health and social care system.

IMPACT ASSESSMENT

Health Improvement	Faster ambulance response times in the community
Workforce	
Education and Training	
Financial	£480K efficiencies (based on losing 22hrs of ambulance availability a day at a unit cost of £60/hour)
Legal	
Equality	
Environmental	

RISK ASSESSMENT

Clinical/Service	Providing timely ambulance responses to urgent need.
Financial	£480K (to WAST) wasted per annum through lost time

Reputational	Being seen to not turn ambulances around perceptions are that patients are waiting in ambulance to be accepted into the EU

Acronyms and abbreviations	WAST – Welsh Ambulance Services NHS Trust EU – Emergency Unit TRT – Turnaround Time UCL – Upper Control Limit LCL – Lower Control Limit

CONSULTATION AND ENGAGEMENT

In consultation with WAST

SOURCES OF INFORMATION

Information provided by WAST and sourced from EU Workstation