Meeting Date	**31st July 2018**	**Agenda Item**	**4b**
Report Title	Handover of Care at Emergency Departments – WAST Internal Audit Report		
Report Author	Kate Griffiths, Corporate Services		
Report Sponsor	Jan Thomas, Assistant Chief Operating Officer		
Presented by	Chris White, Chief Operating Officer		
Freedom of Information	Open		
Purpose of the Report	A Welsh Ambulance Service NHS Trust (WAST) internal audit review has assessed compliance with the 'NHS Wales Hospital Handover Guidance' across all Health Boards in Wales. Not all of the findings/recommendations are applicable to ABMU Health Board, however this paper presents ABMU Health Board's management response to the recommendations contained within the report.		
Key Issues	The report's high priority recommendations seek to address the avoidable conveyance of patients to emergency departments (ED). The Health Board's management response describes the alternate pathways we have worked with WAST to develop to reduce unnecessary attendance to ED's. It also confirms the joint working arrangements with WAST in developing additional pathways. The key medium priority recommendations highlight the need for improved communications between Health Boards and WAST at operational and strategic levels to enable shared learning of best practice and improve performance – particularly in respect of handover delays. It also recommends improved understanding of roles and responsibilities in recording data. The Health Board's management response sets out the joint working arrangements in place with WAST and describes the actions we are taking in conjunction with Local Authority partners to improve patient flow across the system. The low priority recommendation seeks to ensure systems are in place to support the nutrition, hydration and continence needs of patients affected by handover delays – and that these are recorded. Our management response describes the arrangements in place within our Emergency Departments to ensure these needs are met and recorded.		
Specific Action Required ***(please ✓ one only)***	**Information**	**Discussion**	**Assurance**	**Approval**
			✓	
Recommendation	Members are asked to consider the management response.			

HANDOVER OF CARE AT EMERGENCY DEPARTMENTS: WAST INTERNAL AUDIT REPORT

1. INTRODUCTION

A WAST internal audit review assessed compliance with the 'NHS Wales Hospital Handover Guidance' across all Health Boards in Wales, with a focus on compliance with pathways and hospital handover. This paper presents ABMU Health Board's management response to the recommendations contained within the report.

2. BACKGROUND

The 'Handover of Care at Emergency Departments' review has been completed in line with Welsh Ambulance Service NHS Trust's (WAST) 2017/18 Internal Audit Plan and sought to provide WAST with assurance that operational procedure is compliant with Welsh Health Circulars issued by Welsh Government.

The review assessed compliance across All Health Boards in Wales with a focus on compliance with pathways and hospital handover. The full WAST Internal Audit Report may be found at Appendix 1.

It must be noted that not all of the findings/recommendations are applicable to ABMU Health Board, however in response to the recommendations within the report, the Assistant Chief Operating Officer convened a meeting with senior colleagues from our Emergency Departments at Morriston and Princess of Wales Hospitals, and WAST's Operational Manager for ABM. A set of actions have been agreed in response to each recommendation, these are detailed within the management response (below).

Oversight of the conclusion of these actions will be undertaken by the Health Board's Unscheduled Care Supporting Delivery Board.

3. RECOMMENDATION

The Audit Committee are asked to consider the Health Board's management response to the WAST Internal Audit Report.

ABMU Health Board Management Response June 2018:
WAST Handover of Care at Emergency Departments Internal Audit Report 2018

Finding 1 - Patient care during handover delays	**Risk**
One of the key feedback improvement themes that has been identified by the WAST Quality, Safety and Patient Experience team is in regards to the provision of nutrition, hydration and continence when a patient experiences a significant delay and is held outside the ED. Although the majority of patients conveyed to ED are admitted within 60 minutes there are over 1,300 patients each month that wait in an ambulance for long periods. In order to address continence concerns WAST now participates with the All Wales Continence Bundle to ensure that pre-hospital patient care is included in their monitoring. The approach regarding the appropriate provision of continence, nutrition and hydration is currently informal and there are no standard operating procedures. Arrangements vary and it would assist ambulance crews if Health Boards had a clearer process in place, particularly at those hospitals that typically experience handover delays in excess of 60 minutes. During our site visits at EDs we observed instances where WAST staff were providing food and drink to patients from stock cupboards held at hospitals. In addition to nutrition, hydration and continence considerations, significant handover delays can lead to patients requiring pressure sore area care.	Safe and dignified care is not provided to patients during handover delays.
Recommendation 1	**Priority level**
We recommend that: • Health Boards undertake a review of the arrangements in place for the provision of continence, nutrition and hydration at each hospital to ensure safe and dignified care is provided to patients during handover delays. • Although handover delays should not occur, where they do Health Boards should maintain a formal record of continence, nutrition and hydration offered and declined or accepted by the patient to evidence that adequate care in these areas was provided at reasonable times.	Low

Management Response 1	Responsible Officer/ Deadline
New documentation for emergency departments is currently subject to discussion at the National Unscheduled Care Board. A section on nutrition/hydration is included within the revised documentation which is being proposed. In the meantime, arrangements are in place within Emergency Departments at both Morriston and Princess of Wales hospitals to ensure food and drinks are available to patients who may experience handover delays. While the new documents mentioned above are being finalised for hospital completion, ambulance crews will record nutrition and hydration events onto their Patient Clinical Records (PCR), this information is conveyed to ED staff at the point of handover and entered onto ED records. In respect of continence, if a patient is mobile they will be assisted to the hospital toilet facility by WAST staff. Where the patient is immobile or has any specific needs ambulance staff will seek nursing support to undertake with patient toileting. This would need to be undertaken within the hospital due to ambulance CCTV and privacy issues. Whilst not referenced within the report recommendations, both Emergency Department and WAST colleagues have raised concern over pressure care management during these times of handover delay. This has been escalated and as a result is intended for discussion at the All Wales Directors of Nursing meeting in July 2018.	ECHO Service Manager, POWH & Head of Nursing ECHO Morriston ABMU DoN to advise of action required further to All Wales DoN Meeting, July 2018
Finding 2 - Conveyance to ED	**Risk**
Ambulance Quality Indicators (AQI's) There are a number of AQIs that relate to conveyance including the 'number of incidents that resulted in non-conveyance to hospital' under 'Step 4: Give Me Treatment' and the 'number of 999 patients conveyed to hospital', including analysis by type and also those conveyed to hospital outside of the local Health Board area, under 'Step 5: Take me to Hospital'.	Ambulance conveyance not being managed effectively by Health Boards and WAST resulting in patients being conveyed to ED

The Wales Audit Office Review of Emergency Ambulance Services Commissioning Arrangements dated July 2017 highlighted improvement areas for the AQIs. There is recognition that these indicators are still developing and require further refining to ensure they demonstrate key data in a clear way. There are also opportunities to improve the presentation of some indicators so that they become more accessible and understandable to readers and make them more meaningful in understanding patient outcomes and patient experiences. Additionally, the report highlighted that EASC members are not yet fully recognising and making the most of the potential that this information holds to inform decisions for improving the quality of ambulance services for patients across Wales. It is recognised that it would not be appropriate to set a 'target' of reduced conveyance following 'See and Treat' as this could incentivise decision making to the detriment of the patient. However, there could be improved usage of the conveyance data that would enable analysis that should improve handover delays and reduce the cost of lost hours. For example, improved analysis of patients who were seen by the hospital clinician and released without requiring treatment, highlighting that the conveyance was not necessary or identifying patients that were conveyed to ED where an alternative pathway was more appropriate, also known as 'missed opportunities'. Further analysis would also identify if paramedics require training and development and ensure that all crews have the guidance and understanding to reduce conveyance to ED. **GP Referrals** During this audit there was a particular point raised by all of the Health Boards and by WAST regarding the impact on conveyance and peaks in attendance to ED that result in handover delays. GP referrals are unscheduled and occur between GP hours, typically 10am to 6pm which can contribute to bottlenecks outside hospitals. Furthermore, we were informed that the time lost during hospital handover delays, coupled with the way the WAST clinical model is designed to prioritise calls in line with their red, amber, green rating, mean that ambulance crews are often unable convey GP referrals to hospital within the relevant department's opening hours. This is due to GP referrals typically being classified as green priority and results in the patient not receiving timely and appropriate care. It was generally recognised that improvements could be made by having scheduled conveyance for GP referrals where appropriate.	inappropriately.

Recommendation 2	**Priority level**
We recommend that: • WAST, in conjunction with EASC, evaluates how it records, analyses and reports on conveyance and how this information is used to gain assurance that conveyance to ED is restricted to those cases where the presenting condition determines that the ED is the appropriate pathway for the patient. WAST should develop ways of identifying missed opportunities, for example, through undertaking sample audits across a range of indexed conditions and comparing conveyance rates across Health Boards. • WAST and Health Boards undertake a project to investigate whether GP referrals could be scheduled, where the patient condition allows, so that the time of arrival at the ED is more likely to improve the patient experience by being aligned to the demand and capacity models of the hospital.	High
Management Response 2	**Responsible Officer/ Deadline**
ABMU HB and WAST have been worked jointly on the development of initiatives to reduce the number of Green call/Health Care professional call attendances to Emergency Departments. This work has resulted in the implementation of a number of alternative pathways and actions to avoid unnecessary ED attendances, including: • Mental Health pathway; • Respiratory pathway; • Falls, resolved epilepsy and resolved hypoglycaemic pathways • 111 service pathways; • Acute Clinical Care Teams responding where appropriate; • Direct referral pathway for STEMI's; • A reduction in attendances by frequent attenders. • The development of direct access pathways to speciality assessment units that bypass attendance at ED's	

As a result of this joint programme of work, the number of green and amber 2 call conveyances to hospital within ABMU HB has been gradually reducing. The proportion of Green call conveyances within the HB is now the lowest in Wales. The Health Board is also participating in the national evaluation of amber calls and it is anticipated that this work will identify further opportunities to develop pathways that further reduce the need to convey patients to an ED. This review is due to conclude in September 2018. WAST is undertaking work to ring-fence Urgent Care Support (UCS) Vehicles to support the transfer of HCP calls to hospitals in a timely manner. In respect of scheduling of GP referrals, a meeting is being arranged with Primary Care leads to discuss this further and to look for opportunities to improve this route of attendance.	Head of Ops – WAST Head of Ops - WAST
Finding 3 - Pathways to bypass ED	**Risk**
As part of the audit we were provided with a schedule of pathways managed through the Clinical Pathways Approval & Appraisal Group (CPAG). We were also provided with a list of pathways by each of the six Health Boards. We were unable to reconcile these and were therefore unable to verify that: • There is a clear and consistent process for WAST and Health Boards to formally approve each pathway; • Where a pathway is approved, there is a clear flowchart that has been made available and understood by WAST staff, including the crews and staff within the Clinical Contact Centres; • Each pathway is underpinned by detailed methodology to enable evaluation and monitoring of its success in reducing conveyance to ED; and • There is a process in place to review and identify pathways that are effective and should be considered for implementation at other Health Boards.	Pathways for emergency care that bypass the ED are not communicated, shared and understood.

We were informed by the WAST Operations staff interviewed, that paramedics have not always been able to follow a pathway as the alternative location did not have capacity or resource to receive and treat the patient at the time. This is currently not well recorded and as such we could not audit this in any detail. We also noted during our visits that the WAST crews have a pathways folder in the ambulance that should enable them to identify and follow the appropriate pathway. Again, we were unable to reconcile that all of the pathways were in the folder and overall we could not be confident that all staff were fully aware of them. In particular, if a crew conveyed across border to another Health Board Area it is unlikely that they would be aware of the local pathways. We were informed that tablet devices have recently been allocated to paramedics. This provides WAST with an opportunity, with software development, to provide an electronic tool of all the available pathways for paramedic's that could increase their ability to utilise a pathway and bypass conveyance to ED where appropriate.	
Recommendation 3	**Priority Level**
We recommend that: • WAST and Health Boards undertake a review of the governance arrangements for the identification and approval of all pathways, together with a consistent process for recording, disseminating and measuring outcomes. • WAST ensures that any blocks or breaks that prevent the use of a conveyance pathway to bypass ED are recorded and management action is taken to address any issues. • WAST investigates the opportunity of developing an electronic pathways tool to assist paramedics in following pathways to bypass conveyance to ED.	High
Management Response 3	**Responsible Officer / Deadline**
ABMU Health Board's position in respect of alternate pathways is good overall and reflects the joint work done to date. WAST within ABMU has developed a directory of pathways and services which is available on every ambulance vehicle and this has also been shared with Hywel Dda ambulance personnel to support	USC Board / ECHO Board – ongoing approval of alternate pathways

decision making at scene. Additional alternate pathways for GP expected patients are being implemented in Morriston Hospital on a phased basis with effect from 1st July , and pathways in relation to falls / hypoglycaemia / epilepsy are being reviewed. The Unscheduled Care Board signs off pathway developments such as these and membership includes the WAST Operational Manager for ABM. WAST is intending to introduce a tool for reporting which is intended to be available on personal tablets, this would also provide access to conveyance pathways. A pilot has been ongoing within ABMU for this purpose and is to be evaluated.	Morriston service delivery unit Chief Operating Officer WAST Operational Manager
Finding 4 - HALO Role	**Risk**
Each of the Health Boards has meetings with WAST although their frequency varies. Managing delays in hospital handover is a daily activity that is monitored by the minute. There is constant communication and dialogue between WAST and the hospitals, aligned with escalation plans. We were informed by each Health Board that they have a good partnership working arrangement with WAST and meetings occur daily, weekly or fortnightly, typically; • Daily 11am conference call between all Health Boards, WAST and the Welsh Government. • Daily bed management / patient flow hospital meetings ('huddles'). • Weekly or fortnightly meetings between ED staff and the WAST Area Operations Manager. Whilst the frequency and attendance at meetings (both formal and informal) varies, the purpose is the same with hospital staff aware that patient flow is key in preventing handover delay and bed management forms a fundamental role. We requested minutes of these meetings but were not provided with them and concluded that many of these meetings are indeed not minuted. We were informed at some hospitals that attendance at site meetings by a WAST representative was often	Ineffective meetings between staff at WAST and Health Boards to manage emergency care flow. This could lead to poor decision making negatively impacting WAST and Health Boards ability to reduce handover delays and patient health.

limited by the availability of the Clinical Team Leader (CTL). Other hospitals have a designated WAST Hospital Ambulance Liaison Officer (HALO) in place which results in better ongoing oversight of the handovers at the hospital. The feedback we received during our hospital visits was that most would value having a HALO as it provides more opportunity for WAST to liaise with the hospital staff to assist in managing hospital handovers.	
Recommendation 4	**Priority Level**
We recommend that WAST undertakes a cost benefit analysis on the potential efficiency gains that may be available through the HALO role. This could be trialled initially at those hospitals with the lowest handover rates to measure the impact it has on improving handover performance.	Medium
Management Response 4	**Responsible Officer / Deadline**
ABMU Health Board have trialled HALO roles at both Morriston and Princess of Wales Hospitals – these roles were WAST-funded through winter pressures allocations for a period of 2 months. A full benefits analysis is to be undertaken nationally before any longer term arrangement is recommended.	WAST – Director of Operations/ EASC
Finding 5 - Strategic forums	**Risk**
Whilst there is communication between WAST and Health Boards on operational matters, as highlighted in finding 4 above, there was little evidence of strategic direction and related forums. Such would assist in leading on and managing the issues of handover delays, conveyance, pathways, patient flow, HAS data quality and enable better uniformity and best practice sharing.	Opportunities to address All Wales issues and seek to develop consistent approaches may be missed.

Recommendation 5	**Priority Level**
We recommend that WAST identifies all meetings that are held between WAST and Health Boards at hospital, Health Board and national level and determines the need for less or more and how they are recorded (agendas, minutes, action plans). In particular, how strategic decision making and sharing of best practice is performed in respect of handover of care at Emergency Departments.	Medium
Management Response 5	**Responsible Officer / Deadline**
This recommendation is largely for WAST to respond to, however within ABMU the appropriate forums for these discussions already include WAST representation within their membership (Unscheduled Care Board / ECHO Boards at Morriston & POWH, Winter Planning Group, Stroke services redesign group). In addition, the WAST Operational Manager within ABM meets monthly with the Assistant Chief Operating Officer and is involved in wider discussions that take place within the Health Board. Best Practice in respect of handover documentation is shared through the Unscheduled Care Board.	WAST Operational Manager / ABMU – ongoing recording of attendance at meetings/ involvement in relevant discussion. Unscheduled Care Board – no end date.
Finding 6 – Patient flow initiatives	**Risk**
We reviewed Board meeting minutes for each Health Board and found that delayed handovers are included in performance reports. It was clear that all Health Board executives are aware of the problem of handover delays and set targets and actions to reduce them. As noted in Action 1 above, we have also reviewed the IMTP's for the six Health Boards and found that emergency care is included with reference to developing joined-up health and social care services. Whilst this is noted as a priority by all Health Boards, the AQI's over the past 12 months have shown	Opportunities for sharing best practice that reduces handover delays may be missed resulting in lost hours.

little improvement in performance on handover delays. The only Health Boards that are near the 15-minute handover target of 100% are Cwm Taf University Health Board achieving almost 90% each month and Hywel Dda University Health Board achieving circa 80%. Cwm Taf University Health Board's performance may be attributed to its project to reduce delays and improve the flow of patients across hospital, GP and community services. The 'Focus on Flow' project won the NHS Wales Improving Patient Safety Award 2014. It should be acknowledged that all of the Wales NHS Health Boards have undertaken projects and initiatives to improve unscheduled care and address patient flow. Many of these are currently in operation. What is clear from the AQI's is that the initiatives applied by Cwm Taf University Health Board have been very effective in respect of the impact on WAST and lost ambulance hours as a result of handover delays. It is surprising, given the transparency of this performance information over the past 3 years with each Health Board receiving the quarterly AQIs showing Health Board comparative data, that those lower performing Health Boards have not done more to emulate models of the higher performers, notably, Cwm Taf.	
Recommendation 6	**Priority Level**
We recommend that WAST and Health Boards evaluate the key factors adopted by Cwm Taf University Health Board that resulted in their handover performance improving from circa 50% to 90% since 2013 and work together to drive similar improvement.	Medium
Management Response 6	**Responsible Officer / Deadline**
ABMU recognises the need for a system-wide response to address delays in patient flow which impact on ambulance handover delays at our front doors. We have adopted the Welsh national SAFER patient flow model and are reviewing opportunities to develop models of care that support increased capacity for patients to be routinely discharged to their place of residence to assess and support their ongoing care needs eg Early supported discharge models.	Chief Operating Officer

The HB in conjunction with LA partners is working towards reducing discharge delays. A Western Bay workshop is taking place on 3rd July to revisit the 'optimal' community model, to agree standard definitions to code patients who are medically fit for discharge, and to inform the development of a business case for a Total Discharge model. There are opportunities to access the Transformation Fund or Invest to Save funds to develop this approach on a sustainable basis, which will improve patient flow and also improve patient safety across the USC system. It is anticipated that that this work will also feed into the development of the HB winter plan for 2018/19. Service delivery units are also working closely with LA partners at an operational level using a service improvement approach to improve discharge pathways to improve patient flow.	
Finding 7 - Delayed handover clinical triage	**Risk**
The Welsh Government health circular clearly states that *"WAST crews should not routinely be responsible for monitoring patients over prolonged periods outside A&E, and hospital clinicians should be responsible for overseeing the assessment of patients."* The University Hospital of Wales (UHW) was the only hospital of the 6 visited that did not undertake a face to face assessment of the patient before admission to the hospital. In all other cases the clinician carried out an initial patient assessment in the back of the waiting ambulance as required. We were informed by staff at UHW that that the ambulance triage by ED clinicians is not one supported by the Royal College of Emergency Medicine and that whilst nurses do not enter the ambulance, the risk to patients is managed through the protocols and processes in place; a clinical assessment by the Majors Assessment Nurse (MAN) through communication with the paramedic. The current practice at the UHW is contrary to Point 3 of the Welsh Government guidance above. This is a conscious decision by the hospital, as outlined above, and results in greater responsibility on the paramedics to assess the patient condition and monitor that condition for over 30 minutes and sometimes several hours. There is also a missed opportunity for the ED clinician to undertake an assessment at an earlier stage that could have resulted in the patient being redirected, avoiding an unnecessary wait for the patient and lost	Patients are not clinically assessed resulting in them coming to harm. There is also a missed opportunity for the ED clinician to undertake an assessment at an earlier stage that could have resulted in the patient being redirected, avoiding an unnecessary wait for the patient and lost hours to WAST.

hours to WAST.	
Recommendation 7	**Priority level**
We recommend that WAST seeks confirmation from Welsh Government regarding responsibility for undertaking a clinical assessment of patients prior to admittance to the ED.	High
Management Response 7	**Responsible Officer / Deadline**
Within ABMU Health Board, we comply with Welsh Government guidance and therefore no further action is required on our part.	
Finding 8 HAS Data	**Risk**
Through discussion with paramedics and hospital clinicians (i.e. Nurse in Charge) we found some contradiction over the responsibility for completing the HAS handover entries. Some thought it was the responsibility of the other party, particularly when the entry had not been completed. Others felt it was the responsibility of both parties which had on occasions resulted in the paramedic finding the entry had already been made by the hospital. It was also found during observation at site visits that the point at which the paramedic updated the HAS varied. Some 'notified' as soon as they entered the ED and then notified the Nurse in Charge, others the other way around. Whilst this finding is mainly anecdotal it was apparent that the data is not as accurate as it would be if there was clear guidance and understanding on HAS roles and responsibilities and a consistent approach at all hospitals over exactly what point the paramedics or clinicians update the HAS. We analysed HAS data covering a sample of 7 days (Mon-Sun) over 7 weeks in September and October 2017. The analysis highlighted that the late reason is not completed over 25% of the time. If this data was complete and accurate it would provide both WAST and Health Boards with information to assist in reducing delays.	Incomplete and inaccurate data could undermine the quality of the management information reported. This could lead to poor decision-making negatively impacting WAST and Health Boards ability to reduce handover delays and patient health.

Recommendation 8	**Priority Level**
We recommend that WAST and Health Boards; • WAST and Health Boards ensure that the roles and responsibilities for recording data on the HAS are clearly understood. This should be supported by clear guidelines and protocols to ensure that the data can be relied upon as fair and accurate with consistent application of the time recording for the notification and handover. • The Health Boards and WAST undertake an assessment over the use of the 'late reason' data and where and how it provides management information that can assist in managing handover delays, e.g. addressing issues such as a lack of beds.	Medium
Management Response 8	**Responsible Officer / Deadline**
Our Emergency Departments have undertaken a review of handover screens on which the HAS is available and have moved some screens to offer better accessibility. The Health Board in conjunction with WAST will be conducting a review of its standard operating procedures for the handover process to ensure consistent application across all sites, which will be reinforced via "Perfect Day" events on each site. In addition we believe there are opportunities for improved use of the data recorded on the HAS and will be undertaking refresh training sessions on the handover process.	ECHO Service Managers Morriston & Princess of Wales Hospitals/ Head of Ops for WAST in ABMU. Complete by October 2018.

Handover of Care at Emergency Departments

Internal Audit Report

2017/18

Welsh Ambulance Services NHS Trust

NHS Wales Shared Services Partnership

Audit and Assurance Services

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Appendix B Summary of Health Board IMTPs integration with WAST
Appendix C Assurance Opinion and Action Plan Risk Rating
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Draft report issued:	5th January 2018
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Auditors:	Helen Higgs, Head of Internal Audit Osian Lloyd, Deputy Head of Internal Audit Andrew Ellins, Principal Auditor Johanna Butt, Principal Auditor
Executive sign off	Richard Lee, Director of Operations
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Committee	Audit Committee Finance and Resources Committee

ACKNOWLEDGEMENT
NHS Wales Audit & Assurance Services would like to acknowledge the time and co-operation given by management and staff during the course of this review.

1. Introduction and Background

A draft version of this report was presented to the WAST Audit Committee in March 2018. While management responses to our recommendations have been received from WAST, responses are still awaited from Health Boards on the seven out of eight recommendations that apply to both WAST and Health Boards.

We have received assurances from the Trust that it will continue to work with Health Boards to encourage management responses and work to implement these joint responsibility recommendations.

The 'Handover of Care at Emergency Departments' review has been completed in line with the 2017/18 Internal Audit Plan. The review seeks to provide the Welsh Ambulance Service NHS Trust (WAST) with assurance that operational procedure is compliant with Welsh Health Circulars issued by Welsh Government.

The statement of intent section of the Welsh Health Circular titled 'NHS Wales Hospital Handover Guidance' (reference WHC/2016/029) states:

'The safety, effectiveness and dignity of care of patients must be at the forefront of systems of emergency care. The best care is provided to patients in the correct care environment. When ambulance crews take a patient to hospital it is essential that they are released swiftly so they can continue to provide a safe and efficient service to the local community.

Health Boards are responsible for ensuring the safe emergency transport, and timely treatment, of citizens in their local area. When a patient is conveyed to a hospital by ambulance, care must be handed over to the hospital team within 15 minutes, and Health Boards are responsible for ensuring that this happens reliably. All members of the Health Board Executive team have a special responsibility to communicate the importance of handover.

Patients and their carers are important partners in the process of handover and admission. Their involvement should be a key part of planning emergency care, and when delays occur they should be kept fully informed of the reasons and the progress being made in resolving them.

Staffing arrangements in hospitals should ensure the safe care and treatment of patients. Hospital sites should have effective Escalation Plans in place to ensure ambulances can be offloaded at times of peak pressure. Senior clinical decision makers should be present routinely at the hospital front door and their presence strengthened as part of the escalation plan when pressures build in the system.

The planning of Unscheduled Care must be given a high priority by Health Boards. Delays in hospital handover is frequently associated with blockages to patient flow further upstream, and work across the whole pathway of health and social care is necessary to address this properly.

Key actions to support hospital handover have been highlighted and summarised. They are intended for implementation by the Health Boards and Trusts in the NHS across Wales in local policies and protocols, and should be incorporated into local site Escalation Plans as they are revised in line with the latest Welsh Government advice.'

2. Scope and Objectives

The internal audit review has assessed compliance with the Welsh Health Circular titled 'NHS Wales Hospital Handover Guidance' (reference WHC/2016/029), across all Health Boards in Wales with a focus on compliance with pathways and hospital handover. Any weaknesses have been brought to the attention of management and advice issued on how particular problems may be resolved and control improved to minimise future occurrence.

The review assessed compliance with the following key actions highlighted within the Welsh Health Circular to support hospital handover:

- planning for emergency care should involve patients with recent experience of care and must be clearly visible in the Integrated Medium Term Plan (IMTP);
- ambulance conveyance should be actively managed by Health Boards and WAST;
- pathways for emergency care that bypass the Emergency Department should be in place;
- safe, sustainable, staffing levels for emergency care, able to flex to meet demand, must be in place, with appropriate levels of supervision;
- Health Boards and WAST should meet weekly to manage emergency care flow. These meetings should ensure that care pathways that reflect the five step ambulance model used to commission ambulance services in Wales are in place;
- Health Board executives must visibly and repeatedly communicate the importance of ambulance handover to staff;
- hospital clinical staff must ensure that any patient waiting more than 30 minutes has been assessed and moved immediately into hospital if there is a risk to patient safety; and
- wards must increase their ability to pull patients safely from Emergency Departments at times of peak demand. If significant

ambulance delays occur Health Boards must ensure that effective site escalation arrangements allow ambulances to be released promptly.

In addition, we reviewed the training provided to paramedics and Emergency Departments to support effective hospital handover.

3. Associated Risks

The risks considered in the review are as follows:

- Non-compliance with Welsh Government guidance resulting in patients coming to harm; and
- Failure to achieve the most efficient and effective use of resources.

OPINION AND KEY FINDINGS

4. Overall Assurance Opinion

We are required to provide an opinion as to the adequacy and effectiveness of the system of internal control under review. The opinion is based on the work performed as set out in the scope and objectives within this report. An overall assurance rating is provided describing the effectiveness of the system of internal control in place to manage the identified risks associated with the objectives covered in this review.

The level of assurance given as to the effectiveness of the system of internal control in place to manage the risks associated with Handover of Care at Emergency Departments is **Limited** Assurance.

RATING	INDICATOR	DEFINITION
Limited Assurance		The Board can take **limited assurance** that arrangements to secure governance, risk management and internal control, within those areas under review, are suitably designed and applied effectively. More significant matters require management attention with **moderate impact on residual risk** exposure until resolved.

The overall level of assurance that can be assigned to a review is dependent on the severity of the findings as applied against the specific review objectives and should therefore be considered in that context.

5. Assurance Summary

The summary of assurance given against the individual objectives is described in the table below:

Assurance Summary – Compliance with WHC/2016/029					
1	Planning for emergency care should involve patients with recent experience of care and must be visible in the IMTP.			✓	
2	Ambulance conveyance should be actively managed by Health Boards and WAST.		✓		
3	Pathways for emergency care that bypass the Emergency Department should be in place.		✓		
4	Safe, sustainable staffing levels for emergency care, able to flex to meet demand, must be in place, with appropriate levels of supervision.			✓	
5	Health Boards and WAST should meet weekly to manage emergency care flow.		✓		
6	Health Board executives must visibly and repeatedly communicate the importance of ambulance handover to staff.			✓	
7	Hospital clinical staff must ensure that any patient waiting more than 30 minutes has been assessed and moved immediately into hospital is there is a risk to patient safety.		✓		
8	Wards must increase their ability to pull patients safely from Emergency Departments at times of peak demand. If significant ambulance delays occur Health Boards must ensure that effective site escalation allows ambulances to be released promptly.			✓	

Assurance Summary – Compliance with WHC/2016/029					
9	Training is provided to paramedics and Emergency Departments to support effective hospital handover.		✓		

6. Summary of Audit Findings

The key findings summarised below and detailed in the Management Action Plan (Appendix A).

This review has sought assurance that WAST and six Health Boards are compliant with the Welsh Health Circular 2016/029 requiring principally that '*when a patient is conveyed to a hospital by ambulance, care must be handed over to the hospital team within 15 minutes, and Health Boards are responsible for ensuring that this happens reliably.'*

Each Major Emergency Department (ED) hospital has a WAST Hospital Arrival Screen (HAS) that the paramedic and hospital clinician use to enter the times of the conveyance arrival, notification and handover. We found that the HAS is not always completed by crews and clinicians which affects the quality of the underlying data.

The performance of each Health Board on achievement of the 15 minute target during 2017 varies from circa 40% up to 90% (against a target of 100%). We have looked at reasons for variation within the scope and objectives of the audit and identified some areas for improvement. However, issues around capacity to enable admission of the patient into ED in a timely manner are complex. A number of factors contribute, including demand and available resources to provide specialist services outside of ED; for example, mental health pathways, social care packages and primary care services within the Health Board.

Patient flow is critical in managing front door blockages and bed management mechanisms are applied across Health Boards. Patient flow varies at each hospital and to reach a conclusive reason as to why handover compliance is better at some Health Boards (noticeably Cwm Taf University Health Board) than others requires a much deeper and broader analysis. Undertaking a detailed review of bed management, discharge procedures, elective surgery, social care packages, GP referrals and Out of Hours services are just some of the explanations provided during this audit regarding the unavailability of beds that then result in handover delays.

There has been progress made by each Health Board, to varying levels of development and implementation, to agree conveyance pathways with

WAST that bypass the ED. It is recognised that there is a need to develop these further in order to reduce handover delays by reducing the demand on the ED. WAST and each Health Board have produced Winter Plans that include specific actions to manage conveyance to ED. We found that more work is required to progress this development in a more structured manner with improved governance, analysis and communication of each pathway.

The Emergency Ambulance Services Committee (EASC) have developed a set of 24 Ambulance Quality Indicators (AQI's) that are reported within the Integrated Quality and Performance Report. There are a number of AQIs that relate to conveyance including the '*number of incidents that resulted in non-conveyance to hospital*' under '*Step 4: Give Me Treatment*' and the '*number of 999 patients conveyed to hospital*', including analysis by type and also those conveyed to hospital outside of the local Health Board area, under '*Step 5: Take me to Hospital'*. However, it was unclear how the outcomes of pathways to bypass ED are measured and therefore a lack of data on success rates.

Live Escalation Levels are reported by each Health Board and recorded on the NHS Wales Integrated Unscheduled Care Dashboard (http://nww.iuscdash.wales.nhs.uk/). This informs each Health Board and the Welsh Government of the current 'live' status of ambulances at each hospital including handovers over 15 minutes and waiting times over 4 and 12 hours. Every morning at 11am a conference call is held with representatives from each Health Board, the Welsh Government and WAST when significant handover delays can be addressed and if necessary, agreement to redirect ambulances.

Each Health Board has a Local Escalation Action Plan (LEAP) that seeks to manage handover delays requiring additional actions and further executive intervention if the delay persists. In order to test in detail that the appropriate completion of these plans was undertaken at all times would have required greater analysis, not least data on individual patients that was not easily available. However, data provided to us during the audit showed noticeable improvement in the handover rates between 15, 30 and 60 minutes.

We were informed by hospital staff that attendance at site meetings by WAST was dependant on the availability of the Clinical Team Leader (CTL). Where a designated Hospital Ambulance Liaison Officer (HALO) was in place at a hospital, this provided more opportunity for WAST to liaise with the hospital staff to assist in managing hospital handovers.

Whilst the plans seek to admit patients that need to be seen by the clinician in the ED as quickly as possible, where there isn't capacity in the hospital, the least acute patients have to wait on the ambulance. This results in the WAST crews waiting with the patient in the ambulance preventing them

from attending calls, recorded as 'lost hours'. For the period July – September 2017, 3,910 patients across Wales had to wait for more than 60 minutes outside the ED. A further 81 patients waited over 4 hours. In this period no patients had to wait over 12 hours. During delayed handovers, paramedics provide ongoing patient assessment.

Action 7 of the Welsh Health Circular states: '*WAST crews should not routinely be responsible for monitoring patients over prolonged periods outside A&E, and hospital clinicians should be responsible for overseeing the assessment of patients*.'

Clinical staff at all of the hospitals visited, with the exception of the University Hospital of Wales (UHW) in Cardiff, undertake a face to face assessment of the patient in the ambulance before admission to the hospital. The practice at UHW is to perform an assessment through communication with the paramedic which is not in line with action 7 of the Welsh Health Circular.

WAST have a 'multi-channel approach' to patient feedback; this links feedback provided through online questionnaires (Have Your Say), compliments and complaints forums, face to face surveys carried out by volunteers at hospitals (patient stories) and feedback provided directly by patients. WAST's Patient Experience team triangulates feedback with the Risk Management and Concerns teams that assists in identifying improvements in the handover service. One of the key feedback improvement themes that has been identified is in regards to the provision of nutrition, hydration and continence when a patient experiences a significant delay and is held outside the ED. Handover delays provide additional patient care responsibilities for paramedics to ensure hydration, nutrition and continence is provided appropriately and with dignity. Whilst these care needs are provided, the process is not documented and arrangements are not formalised.

We identified 3 **High Priority** findings that require prompt management action:

- **Conveyance to ED**
    - Improvement should be made to conveyance reporting arrangements to enable more transparent data on success factors; and to monitor whether the projects and initiatives put in place to reduce conveyance to Emergency Departments are working.
    - GP Referrals should be scheduled to help prevent bottlenecks.

- **Pathways to bypass ED**
    - Improvement should be made to the governance arrangements for the identification and approval of pathways, together with a consistent process for their recording, dissemination and outcome measurement.
    - Improved recording and action where pathways are not able to be utilised.
    - Possible development of electronic tools to assist in the awareness and utilisation of available pathways by paramedics.
- **Delayed handover clinical triage** – University Hospital of Wales (UHW) in Cardiff procedure for initial conveyed patient assessment is not consistent with WHC guidance or with other hospitals visited.

We identified 4 **Medium priority** findings which require management's attention:

- **HALO role** –A dedicated hospital site presence by a member of WAST staff could provide more opportunity to liaise with the hospital staff to improve management of handover delays.
- **Strategic forums** – Whilst there is communication between WAST and Health Boards on operational matters there was little evidence of strategic forums to assist in better uniformity and best practice sharing.
- **Patient flow initiatives** – 90% of patients are handed over to hospital teams within 15 minutes at Cwm Taf UHB. There is opportunity to share good practice to improve performance at all Health Boards.
- **HAS data quality** – recording of the notification and handover together with the late reason (>15mins) is not always accurate and complete.

We also identified 1 **Low priority** recommendation for management consideration. Details of these can be found in the next section of the report.

7. Detailed Audit Findings

This section of the report details the findings of our review. Each section highlights areas of good practice identified. Where relevant, any weaknesses identified are outlined, including proposed actions to address the associated risks. The matrix used for scoring risks is provided at Appendix C.

In order to evaluate compliance with the Welsh Government Health Circular we observed hospital handover procedures at 6 major accident and emergency departments, one from each Health Board (excluding Powys Teaching Health Board), namely the emergency departments at:

- Morriston Hospital (Abertawe Bro Morgannwg University Health Board)
- Royal Gwent Hospital (Aneurin Bevan University Health Board)
- Glan Clwyd Hospital (Betsi Cadwaladr University Health Board)
- University Hospital of Wales (Cardiff and Vale University Health Board)
- Royal Glamorgan Hospital (Cwm Taf University Health Board)
- Glangwili Hospital (Hywel Dda University Health Board)

We met with hospital managers responsible for unscheduled care, ED and acute medicine. We visited Vantage Point House where we held meetings with the WAST Director and the Deputy Director of Operations. We also visited Blackweir and Hawthorn Ambulance Stations where we met with Area Operations Managers for Cardiff and Vale University Health Board, Cwm Taf University Health Board and Betsi Cadwaladr University Health Board.

Further information was obtained from:

- WAST Health Informatics Department;
- Head of Patient Experience and Community Involvement, WAST;
- Head of Planning and Performance, WAST;
- Head of Emergency Care Policy and Performance, Welsh Government; and
- Board Secretary, Emergency Ambulance Services Committee (EASC)

Unless otherwise stated, all data has been obtained from WAST's Informatics or Planning and Performance teams. In all instances we have reviewed data supplied for reasonableness, but have not performed any specific tests over the quality of the data.

WHC/2016/029 – Planning for handover

Health Boards, together with WAST, should assess emergency demand and plan emergency care pathways, in Acute Care Alliances where appropriate. Patients with recent experience of emergency care should be active partners in this planning. Effective arrangements with social care should be put in place through integrated planning of services for the community served by the Health Board. This planning process must be visible in the

Integrated Medium Term Plan (IMTP) submitted by Health Boards to Welsh Government, and should be reflected in local operational protocols and policies.

Action 1: Planning for emergency care should involve patients with recent experience of care and must be clearly visible in the IMTP.

We reviewed the IMTP for WAST and found several references to handovers including;

'System pressures – our ability to fully deliver on our plan will be impacted on system pressures that are outside of WAST control. An example of this is the handover delays at ED sites. Whilst we continue to work with the Chief Ambulance Services Commissioner (CASC) and HB partners to improve demand management and flow, our ability to be our most effective and efficient is significantly affected by the inefficiencies of handover delays and their impact on quality and patient safety. Our internal escalation status (REAP levels) increases with the pressures and this reduces availability of clinical and operational staff. There is also a link between system pressures and experiences for our staff and workforce.'

'Timely handover at Emergency Departments - we will continue to work with HB's on improving the flow in this part of the system, with a focus on sites where there remain a number of challenges. This will include working with HB's to identify suitable holding areas in times of pressure and agreeing the underpinning governance, operational and workforce models. We will work with HB's to pilot and implement direct admission pathways, avoiding the need to take patients through Emergency Departments.'

The WAST IMTP 2016/17-2018/19 includes a 'Summary of Health Board IMTPs integration with WAST' that highlights joint working. See Appendix B.

We reviewed the IMTPs for the six Health Boards and found that emergency care is included with reference to developing joined-up health and social care services. Whilst there is not specific reference to patient experience informing the handover of care at emergency departments within the Health Board IMTPs, there is reference to patient feedback and concerns mechanisms.

We noted that the level of content relating to handovers within the IMTPs of the six Health Boards did not correlate to handover performance. The two Health Boards achieving over 80% of handovers within 15 minutes have the least amount of detail within their IMTP, whilst the Health Boards that have more content and plans to reduce the number of handover delays and improve patient flow within their IMTP, currently have the lowest rates of handovers within 15, 30 and 60 minutes. It is recognised that this is a complex issue for most Health Boards that will require ongoing action and development.

From discussions with ED staff and the WAST Head of Patient Experience and Community Involvement, we were informed that each Health Board and WAST have methods to capture patient experience feedback. WAST have a 'multi-channel approach'; this links patient feedback provided through online questionnaires (Have Your Say), compliments and complaints forums, face to face surveys carried out by volunteers at hospitals (patient stories) and feedback provided directly by patients to WAST. WAST's Patient Experience team triangulates feedback with the Risk Management and Concerns teams which has enabled WAST to identify improvements in the handover service.

WAST has introduced 'dignity champions' whose role it is to observe daily activity. Where champions identify action that is not deemed in line with best practice in regards to the dignity of the patient, they raise the incident to the Quality, Safety and Patient Experience team. We have not evaluated the patient experience process in further detail as it is not in scope for this audit.

One of the key feedback improvement themes that has been identified is in regards to the provision of nutrition, hydration and continence when a patient experiences a significant delay and is held outside the ED. Although the majority of patients conveyed to ED are admitted within 60 minutes, there are over 1,300 patients each month that wait in an ambulance for long periods as Table 1 shows:

TABLE 1:

July-Sept 2017	All Wales	ABM	AB	BCU	CV	CT	HD	OOA
Number of Handovers > 60 Minutes	3,910	790	425	2,132	338	4	221	84
Total Number of Handovers	60,699	10,760	9,550	14,254	8,706	8,058	9,371	2,231
% Handovers > 60 Minutes	6.40%	7.34%	4.45%	14.96%	3.88%	0.05%	2.27%	3.77%

July-Sept 2017	All Wales	ABM	AB	BCU	CV	CT	HD	OOA
Number of Handovers > 4 Hours	81	4	13	63	0	0	1	0
Total Number of Handovers	60,699	10,760	9,550	14,254	8,706	8,058	9,371	2,231
% Handovers > 4 Hours	0.13%	0.04%	0.14%	0.44%	0.00%	0.00%	0.01%	0.00%

Source: WAST Informatics Department

In order to address continence concerns WAST now participates with the All Wales Continence Bundle to ensure that pre-hospital patient care is included in their monitoring. The approach regarding the appropriate provision of continence, nutrition and hydration is currently informal and there are no standard operating procedures. Arrangements vary and it would assist ambulance crews if Health Boards had a clearer process in place, particularly at those hospitals that typically experience handover

delays in excess of 60 minutes. During our site visits at EDs we observed instances where WAST staff were providing food and drink to patients from stock cupboards held at hospitals. In addition to nutrition, hydration and continence considerations, significant handover delays can lead to patients requiring pressure sore area care.

We recommend that:

- Health Boards undertake a review of the arrangements in place for the provision of continence, nutrition and hydration at each hospital to ensure safe and dignified care is provided to patients during handover delays.
- Although handover delays should not occur, where they do Health Boards should maintain a formal record of continence, nutrition and hydration offered and declined or accepted by the patient to evidence that adequate care in these areas was provided at reasonable times.

A process to manage the peaks in the flow of emergency care should be in place and managed to prevent bottlenecks at ambulance handover. Clinical processes to manage conveyance rates (Hear and Treat, See and Treat) should be in place and actively managed in all Health Board areas. Pathways for care based on the 5 step model for ambulance services should be in place to ensure that only those patients requiring immediate hospital care are transported there. Arrangements should be put in place to bypass the need for assessment and admission through the Emergency Department (ED) for appropriate patients (e.g. hot clinic slots for patients referred from primary care).

Action 2: Ambulance conveyance should be actively managed by Health Boards and WAST.

Patient flow management is essential to ensure that there are no bottlenecks in the hospitals that prevent the patient accessing the ED. All hospitals visited have similar protocols and procedures to seek to avoid bottlenecks, in particular:

- Daily (between two and four) site bed management meetings to manage current and projected patient flow through the hospital. These meetings are used to highlight issues in respect of demand and capacity. Observation of these meetings and review of situation reports confirmed that updates are provided on bed management issues on the wards including potential discharges, ward staffing issues which may adversely impact a ward's bed capacity and other information such as infections on wards reducing the flow of patients.

In addition, regular meetings are held between the Health Boards and WAST to review and manage, amongst other matters, handover delays. Refer to Action 5 for further detail.

- Hospital Escalation levels and Local Escalation Action Plans (LEAP) document the process to follow dependent on the site escalation level.

  The Plans detail roles and responsibilities and actions which escalate relative to the length of delay. Each hospital's plans are relative to resources and each have sought to identify appropriate capacity flow to enable access to ED, most noticeably dedicated beds, boarding/surge (i.e. additional bed on wards) and earlier discharge of patients. Refer to Action 8 for further detail.

  In addition to these, WAST has agreed with all Health Boards an NHS Wales Ambulance Availability Protocol that sets out the procedure that must be followed and requires the immediate release of ambulance vehicles when any WAST Allocator has no resources available to respond to RED/AMBER 1 calls.
- The Major EDs have WAST Hospital Arrival Screens (HAS) which inform the ED of ambulances that are on their way to the hospital and their expected time of arrival. The HAS is then updated to reflect the patient flow from the WAST conveyance (inbound), arrival (notify) and admittance (handover) at the hospital. This assists the Nurse in Charge seeking to accommodate capacity in the hospital to meet demand. Refer to Action 9 for further detail.
- It is recognised that many frequent callers have psychological or social needs and conveyance to ED is often not the care they require and is a drain on resources. Alternative pathways and social care plans help manage unnecessary conveyance and are being developed by Health Boards with WAST. Refer to Action 3 for further detail.
- Avoiding 'batching' due to many patients being conveyed to ED in an ambulance at the same time. This is a difficult area to evaluate but appears to occur principally when crew rest breaks are not staggered effectively. We have not evaluated this as crew rest breaks are not in scope for this audit.
- Developing pathways to bypass conveyance to ED. Refer to Action 3 for further detail.
- Projects and initiatives to manage conveyance to ED. Examples highlighted within WAST's *'National Winter Plan and Local Health Board Plans'* presented at WAST Board meeting on 28 September 2017, which vary by type and maturity across the Health Board areas and the effectiveness of which has not been tested individual in any detail during this audit, include:

- Paramedic Pathfinder - the development and roll out of a reductive triage model for paramedics to better enable them to conduct face to face triage of patients when they arrive at scene, using a flow chart of presenting signs and symptoms to determine the most appropriate clinical pathway for the patient's needs e.g. community care, self-care or patient specific pathways which should help reduce conveyance rates to ED.
- Advanced Paramedics to reduce conveyance through Paramedic referrals and sensible deployment to low acuity calls
- Mental Health Pathways - support for patients who find themselves in a crisis situation without any need for medical intervention
- Dedicated Falls Service (with a Paramedic and Community Resource Team member)
- Additional Community First Responder (CFR) schemes
- Ambulatory Care – dedicated ED units for the treatment of patients who can return home or do not require a ward bed between treatments (i.e. on an outpatient basis).
- Alcohol treatment centres
- WAST is piloting a number of community paramedic schemes. This will involve paramedics supporting GP clusters with home visits, with the aim of improving primary care capacity and reduced conveyance.

Reducing conveyance to ED will assist in reducing handover delays as these are often due to capacity issues. This is well recognised and under the Commissioning and Quality Delivery Framework (CQDF) WAST follows the Five-Step Ambulance Care Pathway. This is a five step process for the delivery of emergency ambulance services within NHS Wales:

The WAST *'Performance Analysis 2015/16'* report states*:*

'The framework has a clear strategic aim to focus on a 'shift left' of patient flow along the pathway, where it is clinically appropriate and safe to do so, so that patients are better informed as to how to access the urgent and emergency care system, where appropriate they can receive telephone advice or be treated by a paramedic providing care and treatment 'on scene' or be taken to an emergency department or other services as and when appropriate.'

Following the five-step process should result in fewer conveyances to ED but to date the conveyance rates following 'See and Treat' (steps 3 & 4) have remained at 69-70% month on month in 2016 and 2017 (AQI19 i – 'Percentage of patients conveyed to hospital following a face to face assessment'). The conveyance rates quoted above, and analysed in further detail below, are following a face to face assessment (See and Treat) and when comparing June - September 2016 with the same period in 2017 there was little change in the number of patients where an ambulance resource attended the scene (2016: 76,942, 2017: 77,682). Similarly, those then conveyed in 2017 were 53,364 compared to 53,402 in 2016, hence the percentage not changing significantly.

However, it is worth noting that during this period the number of 999 calls processed through the Medical Priority Dispatch System (MPDS) increased by 2,450; (2016=115,734, 2017=118,184). We understand that this increase is because more calls are being closed at the 'Hear and Treat' stage following WAST CCC telephone assessment and triage. We are aware that the new 111 Service has recently been piloted and this will hopefully further reduce the levels of 'See and Treat' and subsequent conveyance to ED.

The above shows an increased demand on the service, which in the past would likely have resulted in an increase in patients conveyed to hospital, is being managed through improved 'Hear and Treat' services. The number conveyed following 'See and Treat' has not reduced. This should improve following the recent announcement of the Band 6 Paramedic Model which will see an increased scope of practice for Paramedics, linked to a 3-year training plan. As the Band 6 has only recently been introduced, the impact on conveyance is not yet measurable.

There are a number of AQIs that relate to conveyance including the '*number of incidents that resulted in non-conveyance to hospital*' under '*Step 4: Give Me Treatment*' and the '*number of 999 patients conveyed to hospital*', including analysis by type and also those conveyed to hospital outside of the local Health Board area, under '*Step 5: Take me to Hospital'*. The Wales Audit Office Review of Emergency Ambulance Services Commissioning Arrangements dated July 2017 highlighted improvement areas for the AQIs. There is recognition that these indicators are still developing and require further refining to ensure they demonstrate key data in a clear way. There are also opportunities to improve the presentation of some indicators so that they become more accessible and understandable to readers and make them more meaningful in understanding patient outcomes and patient experiences. Additionally, the report highlighted that EASC members are not yet fully recognising and making the most of the potential that this information holds to inform decisions for improving the quality of ambulance services for patients across Wales.

It is recognised that it would not be appropriate to set a 'target' of reduced conveyance following 'See and Treat' as this could incentivise decision making to the detriment of the patient. However, there could be improved usage of the conveyance data that would enable analysis that should improve handover delays and reduce the cost of lost hours. For example, improved analysis of patients who were seen by the hospital clinician and released without requiring treatment, highlighting that the conveyance was not necessary or identifying patients that were conveyed to ED where an alternative pathway was more appropriate, also known as 'missed opportunities'. Further analysis would also identify if paramedics require training and development and ensure that all crews have the guidance and understanding to reduce conveyance to ED. Clearer recording and reporting of conveyance to pathways that bypass ED is covered in more detail in Action 3.

Table 2 below shows the September 2017 conveyance rates by Health Board. Cwm Taf University Health Board has the highest conveyance rate whilst Betsi Cadwaladr University Health Board has the lowest.

TABLE 2:

AQI Ref: AQI19 I	All Wales	ABM	AB	BCU	C&V	CT	HD
Number of 999 Patients conveyed to Hospital	17,513	2,765	3,034	4,248	2,489	1,878	2,330
Total Number of Incidents where an Ambulance Resource Attended Scene	25,339	4,142	4,461	6,524	3,523	2,407	3,159
Percentage of patients conveyed to hospital following a face to face assessment	69.1%	66.8%	68.0%	65.1%	70.7%	78.0%	73.8%

Source: Emergency Ambulance Services Committee (EASC) Ambulance Quality Indicators July – September 2017 (http://www.wales.nhs.uk/easc/ambulance-quality-indicators)

Table 3 below shows the number of notification to handover within 15 minutes in September 2017. The opposite trend is highlighted where Betsi Cadwaladr University Health Board has the lowest achievement of handovers within 15 minutes whilst Cwm Taf University Health Board has the highest handover rate despite the highest percentage of patients conveyed to hospital. This would indicate that conveyance rates do not in themselves have a direct correlation with handover within 15 minute rates. The reason could be the total number of handovers relative to bed capacity.

TABLE 3:

AQI Ref: AQI20 i	All Wales	ABM	AB	BCU	C&V	CT	HD
Number of Notification to Handover within 15 minutes	11,912	1,993	1,781	1,768	1,774	2,053	2,099
Total Number of Handovers	20,660	3,353	3,215	5,014	2,925	2,325	2,973
Percentage of notification to handover within 15 minutes of arrival at hospital	57.7%	59.4%	55.4%	35.3%	60.6%	88.3%	70.6%

Source: EASC Ambulance Quality Indicators July – September 2017

Table 4 below shows that Betsi Cadwaladr University Health Board had circa 2,250 average available daily beds during 2016/17 and in September had circa 165 handovers per day. Cwm Taf University Health Board has circa 1,260 average available daily beds and in September had circa 75 handovers per day. This suggests that handover rates do not correlate directly to bed capacity with Cwm Taf University Health Board achieving 88% handover within 15 minutes but Betsi Cadwaladr University Health Board only managing 35% in September 2017.

TABLE 4:

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Wales	81.5	84.7	85.2	86.3	85.9	86.7	86.9	87.4
Betsi Cadwaladr University Health Board	74.3	79.4	81.7	83.8	83.1	83.8	83.9	86.4
Hywel Dda University Health Board	85.4	87.7	85.1	87.1	85.5	88.1	89.2	87.7
Abertawe Bro Morgannwg University Health Board	85.1	86.9	87.0	86.4	87.0	88.4	88.7	89.1
Cwm Taf University Health Board	76.4	82.9	80.2	82.6	83.2	83.6	83.4	84.1
Aneurin Bevan University Health Board	83.8	85.6	88.3	89.6	89.2	87.9	88.7	88.6
Cardiff and Vale University Health Board	84.8	87.2	88.4	89.0	87.0	88.5	88.4	88.0

Source: Stats Wales Website (NHS-Hospital-Activity/NHS-Beds)

Whilst the proportion of average daily occupied beds to average daily available beds is similar across each Health Board, each percentage is significant. If Betsi Cadwaladr University Health Board had the same proportion rate as Cwm Taf University Health Board it would equate to 51 more beds. This data is insufficient in detail to accurately analyse the impact on handovers, however, good bed management and patient flow is recognised as having impact on delays and there may be a link that the

Health Board with the lowest average daily bed occupancy have the highest rate of handover within 15 minutes.

During this audit there was a particular point raised by all of the Health Boards and by WAST regarding the impact on conveyance and peaks in attendance to ED that result in handover delays. GP referrals are unscheduled and occur between GP hours, typically 10am to 6pm which can contribute to bottlenecks outside hospitals. Furthermore, we were informed that the time lost during hospital handover delays, coupled with the way the WAST clinical model is designed to prioritise calls in line with their red, amber, green rating, mean that ambulance crews are often unable convey GP referrals to hospital within the relevant department's opening hours. This is due to GP referrals typically being classified as green priority and results in the patient not receiving timely and appropriate care. It was generally recognised that improvements could be made by having scheduled conveyance for GP referrals where appropriate.

We recommend that:

- WAST, in conjunction with EASC, evaluates how it records, analyses and reports on conveyance and how this information is used to gain assurance that conveyance to ED is restricted to those cases where the presenting condition determines that the ED is the appropriate pathway for the patient. WAST should develop ways of identifying missed opportunities, for example, through undertaking sample audits across a range of indexed conditions and comparing conveyance rates across Health Boards.
- WAST and Health Boards undertake a project to investigate whether GP referrals could be scheduled, where the patient condition allows, so that the time of arrival at the ED is more likely to improve the patient experience by being aligned to the demand and capacity models of the hospital.

Action 3: Pathways for emergency care that bypass the Emergency Department should be in place.

Each of the Health Boards has developed unscheduled care pathways with WAST to bypass ED. In addition, WAST has a Clinical Pathways Approval & Appraisal Group (CPAG) with the focus of approving clinical pathways. At present, the Terms of Reference for this Group are in draft but should be finalised soon.

Whilst we were provided with examples of pathways that have been developed by both WAST and the Health Boards, accepting there will be local variances, the process of developing and implementing pathways appears disjointed. The number of pathways vary across Health Boards and whilst there are examples of uniformity e.g. mental health and falls

pathways, there is opportunity for improved sharing of good practice. It may be, that a lack of analysis currently undertaken or made available regarding the effectiveness of each pathway in reducing conveyance to ED ('admission avoidance'), is currently preventing this.

As noted under Action 2 above there is no clear breakdown of conveyance by pathway, however AQI 17 measures the 'number of incidents that resulted in a non-conveyance to hospital'. This relates to the number of 999 verified incidents that received an emergency response that resulted in either being resolved at scene or in the home or referred to an alternative care provider.

The AQI specification details that this data is for incidents:

- Referred to GP
- Referred to GP Out of Hours
- Referred to Falls Pathway
- Referred to Other Healthcare Professional
- Referred to Diabetic Pathway
- Referred to Epilepsy Pathway
- Referred to Midwife
- Referred to Specialist Practitioner
- Referred to Social Care Pathway
- Referred to Mental Health Pathway
- Passed to PCS
- Referred to Palliative Care
- Referred to COPD Pathway
- Referred to Cardiac Care Pathway
- Referred to Alcohol and Drug Pathway

As part of the audit we were provided with a schedule of pathways managed through CPAG. We were also provided with a list of pathways by each of the six Health Boards. We were unable to reconcile these and were therefore unable to verify that:

- There is a clear and consistent process for WAST and Health Boards to formally approve each pathway;
- Where a pathway is approved, there is a clear flowchart that has been made available and understood by WAST staff, including the crews and staff within the Clinical Contact Centres;
- Each pathway is underpinned by detailed methodology to enable evaluation and monitoring of its success in reducing conveyance to ED; and
- There is a process in place to review and identify pathways that are effective and should be considered for implementation at other Health Boards.

The Wales Audit Office Review of Emergency Ambulance Services Commissioning Arrangements report dated July 2017 stated '*The pattern of data is perhaps not surprising given that many Health Board changes, to provide alternative services that have the potential to reduce conveyance, have only been recently introduced and have not yet been fully tested by winter pressures. It will be important, however, for EASC and individual NHS bodies to look for positive changes in conveyance rates as part of their assurances that the five-step model is securing its intended benefits.*'

One of the key ways that handover delays can be managed is through reduced conveyance to ED. The cost in lost hours is well documented and investing in the implementation of alternative pathways should see improved handover performance. As there has been a recent restructure within the WAST Operations Team, having a more formalised procedure for the management and dissemination of pathways will assist in ensuring that alternative pathways are known and applied at all applicable times.

We were informed by the WAST Operations staff interviewed, that paramedics have not always been able to follow a pathway as the alternative location did not have capacity or resource to receive and treat the patient at the time. This is currently not well recorded and as such we could not audit this in any detail.

We also noted during our visits that the WAST crews have a pathways folder in the ambulance that should enable them to identify and follow the appropriate pathway. Again, we were unable to reconcile that all of the pathways were in the folder and overall we could not be confident that all staff were fully aware of them. In particular, if a crew conveyed across border to another Health Board Area it is unlikely that they would be aware of the local pathways. We were informed that tablet devices have recently been allocated to paramedics. This provides WAST with an opportunity, following software development, to provide an electronic tool of all the available pathways for paramedic's that could increase their ability to utilise a pathway and bypass conveyance to ED where appropriate.

We recommend that:

- WAST and Health Boards undertake a review of the governance arrangements for the identification and approval of all pathways, together with a consistent process for recording, disseminating and measuring outcomes.
- WAST ensures that any blocks or breaks that prevent the use of a conveyance pathway to bypass ED are recorded and management action is taken to address any issues.

- WAST investigates the opportunity of developing an electronic pathways tool to assist paramedics in following pathways to bypass conveyance to ED.

An escalation policy must be in place with safe levels of staffing. Staff of all grades should have clear lines of responsibility and accountability and an appropriate level of supervision, (e.g. training doctors, health care assistants and nurse practitioners).

Action 4: Safe, sustainable, staffing levels for emergency care, able to flex to meet demand, must be in place, with appropriate levels of supervision.

Each of the Health Boards we visited, and specifically those with major EDs, have undertaken exercises to analyse demand and capacity and to seek to staff the ED on a shift basis that aligns with predicted demand. We were informed that in some hospitals the level of staffing within the ED is fixed and is based on the budget available for staffing the ED. However, Hospital Speciality Consultants / Registrars are called to the ED as required.

There is no statutory 'safe levels' of staffing for ED, unlike for wards and we were informed that there is no prescribed formula for calculating ideal staffing levels. We reviewed the nursing and medical staff rosters for a sample of seven days (Monday – Sunday), covering a seven-week period from August to October 2017. Review of the rosters confirmed staff of all grades and levels, for example, Qualified Nurses, Emergency Department Assistants, Senior Doctors and Junior Doctors. In addition, we noted that staff are assigned a responsibility for each shift e.g. Nurse in Charge, Ambulance Triage, Walk-in Triage, Majors, Minors etc. The hospitals visited had escalation plans in place that detailed the actions to be taken at different escalation levels and this included staff responsibilities. Further information on escalation plans is documented under Actions 7 and 8 of this report.

The Hospital Arrival Screen (HAS) requires the ED staff to record the 'late reason' for the handover exceeding 15 minutes (from a list of reason codes). One of the reasons is 'No Available Nurse or Medical Staff'. We reviewed a sample of the daily HAS data quality reports produced by the WAST Informatics Department for the sample period above and found that less than 4% of delays recorded were noted as being as a result of insufficient staffing as shown in Table 5 below:

TABLE 5:

	Audit Sample 7 days			Late Reason						
0-9% 10-19% 20%+	Hospital	Total Number of Conveyances	Total Late	No Beds Available	No Reason Provided	Patient had Complex Needs	No Available Trolley/Chair	No Available Nurse or Medical Staff	Patient Taken Direct to Ward	Handover to Ambulance Staff
TOTALS for ALL six Health Boards		4661	1980	658	604	271	278	74	41	54
Total % Late			39.07%	29.98%	27.60%	17.03%	15.30%	3.88%	3.63%	2.58%

Source: WAST Informatics Department

NB: The late reason was not provided for 27.6% of the instances and there could have been more instances where the delay was due to 'no available nurse or medical staff.' This has been analysed further under Action 9.

We were informed that staffing ED to meet demand can be difficult in some hospitals, especially out of hours, however, for the sample we tested and from the findings of the audit overall we did not conclude that hospital staffing is a significant contributing factor for handover delays. In addition, given that our internal audit report on Red Calls Response issued in August 2017 included a recommendation relating to WASTs staffing arrangements and the demand and capacity review, we have not performed further work on this area.

WAST and Health Board operational teams should meet weekly to review the demand for emergency care and plan any necessary measures to address it. The culture of care in the organisation is of the utmost importance in ensuring that prompt handover becomes business as usual in Health Boards. Health Board executive teams must ensure that the importance of avoiding delays at ambulance handover is effectively communicated to all staff by emphasising it visibly and repeatedly.

Action 5: Health Boards and WAST should meet weekly to manage emergency care flow. These meetings should ensure that care pathways that reflect the five step ambulance model used to commission ambulance services in Wales are in place.

Each of the Health Boards has meetings with WAST although their frequency varies. Managing delays in hospital handover is a daily activity that is monitored by the minute. There is constant communication and dialogue between WAST and the hospitals, aligned with escalation plans.

We were informed by each Health Board that they have a good partnership working arrangement with WAST and meetings occur daily, weekly or fortnightly, typically;

- Daily 11am conference call between all Health Boards, WAST and the Welsh Government.
- Daily bed management / patient flow hospital meetings ('huddles').
- Weekly or fortnightly meetings between ED staff and the WAST Area Operations Manager.

Whilst the frequency and attendance at meetings (both formal and informal) varies, the purpose is the same with hospital staff aware that patient flow is key in preventing handover delay and bed management forms a fundamental role. We requested minutes of these meetings but were not provided with them and concluded that many of these meetings are indeed not minuted.

As noted above, a conference call is held every day of the year at 11am with representatives from each Health Board, WAST and the Welsh Government (Emergency Care Policy and Performance). This call is principally to review each hospital's escalation status level as this impacts on ED handovers and if there are specific delay issues these can be addressed collectively.

We were informed at some hospitals that attendance at site meetings by a WAST representative was often limited by the availability of the Clinical Team Leader (CTL). Other hospitals have a designated WAST Hospital Ambulance Liaison Officer (HALO) in place which results in better ongoing oversight of the handovers at the hospital. The feedback we received during our hospital visits was that most would value having a HALO as it provides more opportunity for WAST to liaise with the hospital staff to assist in managing hospital handovers.

During our visits, hospital staff expressed concern regarding the limited control they have over the paramedics, specifically the time they take to 'notify' and then 'clear' handovers. We observed some handovers which could have been completed more efficiently – this is reported in Action 9. Having a dedicated HALO in place, especially at hospitals with poor handover rates, could assist in managing the patient flow by ensuring that the 'notify' and 'clear' actions are consistently completed by crews to the expected standards. Other issues raised in this audit report would also benefit from having a WAST member of staff on site with good local knowledge and the ability to monitor and manage performance.

Whilst there is communication between WAST and Health Boards on operational matters there was little evidence of strategic direction and related forums. Such would assist in leading on and managing the issues of handover delays, conveyance, pathways, patient flow, HAS data quality and enable better uniformity and best practice sharing.

We recommend that:

- WAST identifies all meetings that are held between WAST and Health Boards at hospital, Health Board and national level and determines the need for less or more and how they are recorded (agendas, minutes, action plans). In particular, how strategic decision making and sharing of best practice is performed in respect of handover of care at Emergency Departments.
- WAST undertakes a cost benefit analysis on the potential efficiency gains that may be available through the HALO role. This could be trialled initially at those hospitals with the lowest handover rates to measure the impact it has on improving handover performance.

Action 6: Health Board executives must visibly and repeatedly communicate the importance of ambulance handover to all staff.

The escalation level of a Health Board, and its constituent parts, is communicated regularly with the Executive team, in particular the Chief Operating Officer. As a minimum this occurs between two and four times per day following the Site (Bed Management) Meetings but may be more frequent if required. Significant delays should be escalated to the Chief Operating Officer or Executive on call at the time they occurred and immediate actions agreed. During periods of prolonged pressure, the Chief Operating Officer would typically convene extraordinary meetings to agree additional measures the hospital (and wider health and social care system) should take to recover the position and de-escalate.

We reviewed Board meeting minutes for each Health Board and found that delayed handovers are included in performance reports. It was clear that all Health Board executives are aware of the problem of handover delays and set targets and actions to reduce them. As noted in Action 1 above, we also reviewed the IMTPs for the six Health Boards and found that emergency care is included with reference to developing joined-up health and social care services. Whilst this is noted as a priority by all Health Boards, the AQI's over the past 12 months have shown little improvement in performance on handover delays. The only Health Boards that are near the 15-minute handover target of 100% are Cwm Taf University Health Board achieving almost 90% each month and Hywel Dda University Health Board achieving circa 80%.

Cwm Taf University Health Board's performance may be attributed to its project to reduce delays and improve the flow of patients across hospital, GP and community services. The 'Focus on Flow' project won the NHS Wales Improving Patient Safety Award 2014:

"A Cwm Taf University Health Board project to identify delays within its healthcare system and improve the flow of patients across hospital, primary care and community services is delivering better outcomes and experiences.

Overwhelming demands on the system, particularly in the accident and emergency department, was leading to delays in diagnosis and treatment, and patients staying in hospital for longer than necessary. It was also impacting on the ambulance service leading to delays in patients moving from the ambulance into hospital.

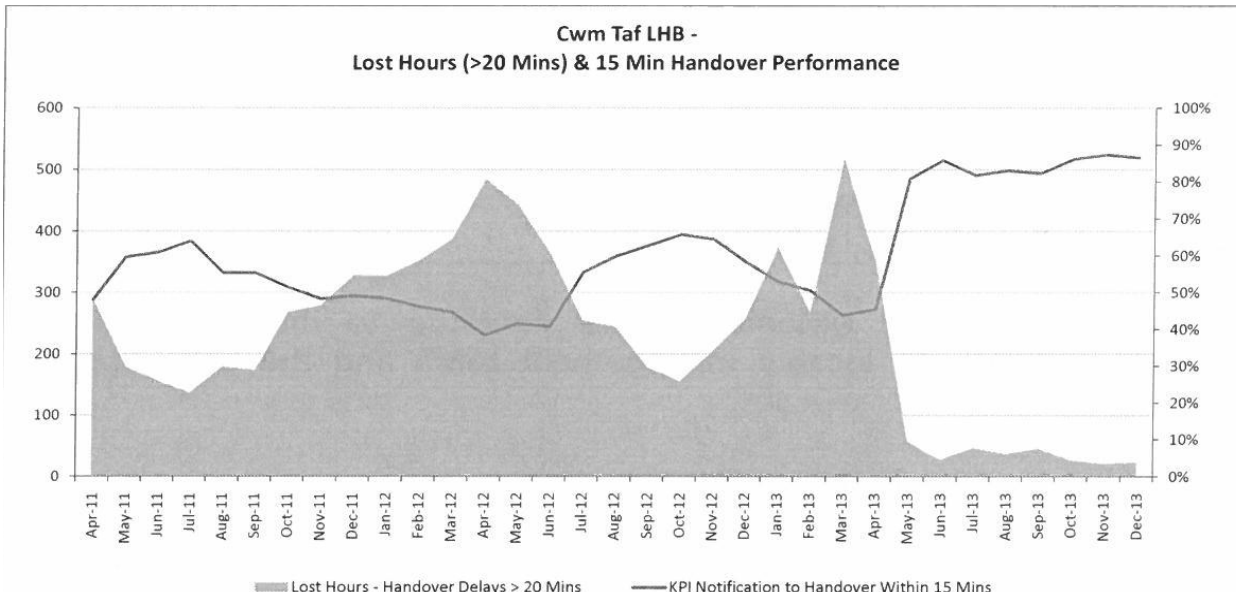
The 'Focus on Flow' project set about identifying blockages within the system and identifying how they could be improved. Staff concentrated on a number of changes including a zero tolerance of delays in handing patients over from ambulance to hospital, redirecting patients to minor injury units instead of accident and emergency, where appropriate, and improving social care support.

The health board also increased the number of short stay surgery beds, improved discharge times from hospital and introduced daily board rounds to ensure all staff are informed about next steps needed for individual patients.

As a result of these changes, levels of overwhelming demand on accident and emergency have decreased and more patients are handed over into hospital from an ambulance within the 15-minute target."

During this audit it was not possible to evaluate specifically how the 'zero tolerance' has made such a difference on handover performance but since it was introduced in May 2013 it has had a significant impact as shown in the graph below.

GRAPH 1:



Source: 'Focus on Flow' Update Report - Cwm Taf UHB Quality and Safety Committee Meeting 23 January 2014

It should be acknowledged that all of the Wales NHS Health Boards have undertaken projects and initiatives to improve unscheduled care and address patient flow. Many of these are currently in operation. What is clear from the AQI's is that the initiatives applied by Cwm Taf University Health Board have been very effective in respect of the impact on WAST and lost ambulance hours as a result of handover delays as shown in table 6 below.

TABLE 6:

Hospital LHB	KPI	Apr 17	May 17	Jun 17	Jul 17
All Wales	15 min Handover %*	58.40%	59.20%	58.90%	59.90%
	Lost Hours	3589.4	3832.1	3235.9	3341.7
Betsi Cadwaladr	15 min Handover %*	43.40%	44.40%	40.20%	40.40%
	Lost Hours	1645.4	1626.2	1393.7	1633.7
Hywel Dda	15 min Handover %*	80.00%	79.60%	79.00%	80.00%
	Lost Hours	156.3	144.9	141.4	130.3
Abertawe Bro Morgannwg	15 min Handover %*	52.10%	58.50%	54.40%	59.90%
	Lost Hours	759.4	650.8	722	523.9
Cardiff And Vale	15 min Handover %*	54.70%	51.00%	56.90%	63.90%
	Lost Hours	428.8	672.5	496.5	273.6
Cwm Taf	15 min Handover %*	84.90%	86.40%	88.00%	86.90%
	Lost Hours	48.7	44.3	33.8	36.2
Aneurin Bevan	15 min Handover %*	51.60%	50.90%	52.90%	46.00%
	Lost Hours	457.2	551.8	361.8	640.1
Out of Area	15 min Handover %*	46.90%	43.30%	46.50%	46.80%
	Lost Hours	93.6	141.6	86.6	103.8

Source: WAST Monthly Integrated Quality and Performance Report July 2017

It is surprising, given the transparency of this performance information over the past 3 years with each Health Board receiving the quarterly AQIs showing Health Board comparative data, that those lower performing Health Boards have not done more to emulate models of the higher performers, notably, Cwm Taf. We have recommended under Action 3 above that a process be put in place to review and identify processes that are effective and should be considered for implementation at other Health Boards.

We recommend that:

WAST and Health Boards evaluate the key factors adopted by Cwm Taf University Health Board that resulted in their handover performance

improving from circa 50% to 90% since 2013 and work together to drive similar improvement.

WHC/2016/029 – Handover on Arrival:

Once the patients have arrived, handover should take place quickly. The Health Board and WAST should work together operationally in order to avoid any handover delay. WAST crews should not routinely be responsible for monitoring patients over prolonged periods outside A&E, and hospital clinicians should be responsible for overseeing the assessment of patients. If delays occur immediate action must be taken by the Health Board to resolve them. Where ambulances are delayed beyond 30 minutes the actions must include:

1. The WAST CCC and the hospital operational team must be notified immediately.
2. Senior hospital medical and nursing staff from all relevant specialities must attend the ED.
3. Hospital ED staff must ensure that any patient waiting more than 30 minutes has been assessed and moved immediately into the ED if there is a risk to patient safety.
4. WAST staff must ensure patient observations are repeated as required and any necessary treatment continued until admission to the ED. Any patient who is seriously unwell, or whose condition deteriorates, should be moved to the ED.
5. Patients and their carers should be kept fully informed of the reason for any delay and the progress in resolving it.

Action 7: Hospital clinical staff must ensure that any patient waiting more than 30 minutes has been assessed and moved immediately into the hospital if there is a risk to patient safety.

It was apparent from our site visits that at every hospital there is full awareness (with use of the live data systems and liaison between the WAST crews and the hospital clinicians) of waiting times of patients. Depending on the acuteness of the patient need, they are moved in to the hospital as soon as there is capacity to do so.

Each Health Board has Local Escalation Action Plans (LEAP) that set out actions for the hospital and WAST at triggers over 15, 30, 45 and 60 minutes. The extract below is a typical example from a LEAP:

- Identify reason for delay in handover.
- Escalation to Nurse in Charge (NIC) and Site Manager.
- Ongoing review of patients to identify opportunities to sit out or move to discharge lounge.

- Ongoing review of patients delayed with crews to identify opportunities to release crews (i.e. potential to sit out).
- Move all patients awaiting discharge home who are suitable for the discharge lounge to the discharge lounge.
- Identify any patients on trollies awaiting ambulance transport who are not suitable for the discharge lounge. Escalate this to the site manager.
- Patient now held on ambulance and crews delayed >30 minutes.
- All patients delayed will be triaged and reviewed by a Senior ED Doctor.
- Utilise all available capacity in the department suitable for patients.
- Utilise all site beds – Site Manager.
- Utilise all ring fenced beds - Site Manager.
- Pre-empt to definite discharges with Senior Nurse support.
- Ongoing communication with senior manager regarding plans.
- Escalate any transport delays to senior manager.

WAST crews should not routinely be responsible for monitoring patients over prolonged periods outside A&E, and hospital clinicians should be responsible for overseeing the assessment of patients.

The University Hospital of Wales (UHW) was the only hospital of the 6 visited that did not undertake a face to face assessment of the patient before admission to the hospital. In all other cases the clinician carried out an initial patient assessment in the back of the waiting ambulance as required. We were informed by staff at UHW that that the ambulance triage by ED clinicians is not one supported by the Royal College of Emergency Medicine and that whilst nurses do not enter the ambulance, the risk to patients is managed through the protocols and processes in place; a clinical assessment by the Majors Assessment Nurse (MAN) through communication with the paramedic.

The Welsh Government health circular clearly states that hospital ED staff must ensure that any patient waiting more than 30 minutes has been assessed.

TABLE 7:

September 2017	All Wales	ABM	AB	BCU	CV	CT	HD	OOA
Number of Handovers > 30 Minutes	3,752	677	527	1,684	457	16	391	177
Total Number of Handovers	19,914	3,580	3,048	4,631	2,920	2,651	3,084	775
% Handovers > 30 Minutes	18.84%	18.91%	17.29%	36.36%	15.65%	0.60%	12.68%	22.84%

Source: WAST Informatics Department

The current practice at the UHW is contrary to Point 3 of the Welsh Government guidance above. This is a conscious decision by the hospital, as outlined above, and results in greater responsibility on the paramedics to assess the patient condition and monitor that condition for over 30

minutes and sometimes several hours. There is also a missed opportunity for the ED clinician to undertake an assessment at an earlier stage that could have resulted in the patient being redirected, avoiding an unnecessary wait for the patient and lost hours to WAST.

We recommend that:

WAST seeks confirmation from Welsh Government regarding responsibility for undertaking a clinical assessment of patients prior to admittance to the ED.

Effective systems should be in place through the Escalation Policy to prevent ED exit block. Wards must increase their ability to pull patients from ED at times of high demand. This should be risk managed to ensure that patients are treated in a suitable clinically supervised area with appropriately qualified staff and in a suitable environment. The patient's safety is the utmost priority and any infection control, or any other risk, should be managed safely.

Action 8: Wards must increase their ability to pull patients safely from the ED at times of peak demand. If significant ambulance delays occur Health Boards must ensure that effective site escalation operates to allow ambulances to be released promptly.

As mentioned previously, every hospital has escalation plans and seeks to increase capacity in times of peak demand. The use of corridors is a contentious practice and is operated in some hospitals but not in most. The majority consider that it reduces patient dignity and privacy and lacks both the appropriate space and more so appropriate clinical observation and monitoring of the patient. Others feel that they can manage patients in corridors effectively, most noticeable in our sample the Royal Glamorgan hospital where some of the highest handover rates within 15 minutes are recorded. All of the hospitals seek to use appropriate space to increase capacity to meet demand as set out in their local escalation plans.

Automated e-mails are sent from WAST every 15 minutes which ensures that appropriate staff are aware of the current status of each patient and the need for escalation. It was noted that despite the Clinical Contact Centres receiving live information on the location of each ambulance and where they are queued outside EDs, ambulance crews are not advised to convey to an alternative hospital. We were informed that whilst conveyance across Health Boards can be agreed at Executive level this does not happen unless the hospital is at Escalation level 5. The main reason provided is that the patient care is considered best provided in their residential Health Board should they require admittance to the hospital or require other care services e.g. social care.

To verify that escalation procedures are undertaken we reviewed the HAS data for a sample of 7 days, expecting to see a significant increase in handover rates at the trigger points to indicate that further action had been escalated.

TABLE 8:

Health Board	<15mins	<30mins	<60mins		>15mins	>30mins	>60mins
AB	51.9%	83.4%	96.4%		48.1%	16.6%	3.6%
ABM	56.5%	76.2%	88.3%		43.5%	23.8%	11.7%
BCU	34.5%	62.4%	79.9%		65.5%	37.6%	20.1%
CT	89.2%	99.1%	100.0%		10.8%	0.09%	0%
CV	59.9%	84.2%	93.1%		40.1%	15.8%	6.9%
HD	73.1%	90.4%	97.4%		26.9%	9.6%	2.6%
Total	**60.9%**	**82.6%**	**92.5%**		**39.1%**	**17.4%**	**7.5%**

Source: WAST Informatics Department

Table 8 above shows that indeed the handover rates had improved significantly between 15, 30 and 60 minutes. We also reviewed whether the Health Boards and WAST had followed their escalation protocol which is recorded on the EMS Occurrence Logs. For our sample we obtained the logs and found evidence that bronze, silver and gold on call staff had been notified of the delay.

Action 9: An appropriate level of training is provided to paramedics and Emergency Department to support effective hospital handover.

All of the Health Board staff interviewed during our site visits felt that formal training on handovers was not necessary as the process for a routine handover to ED should be clearly understood.

- Ambulance is en route to the hospital. These ambulances can be identified by the hospital as they will have an 'Inbound' status on the HAS. The HAS also details the ETA of the Ambulance;
- Paramedic will inform that they have arrived at the hospital on the terminal on the ambulance. The status on the HAS will change from 'Inbound' to 'Arrived' which can again be seen on the HAS at the hospital;
- On arrival one paramedic will stay with the patient and one paramedic will enter the ED to inform the Nurse in Charge / Triage Nurse of their arrival so that the triage of the patient can commence;
- The paramedic must log into the HAS at the hospital to record that the ED has been notified of the ambulance's arrival. This action changes the status on the HAS from 'Arrived' to 'Notified' and is the point where the 15-minute handover target commences;
- Once the patient has been handed over to the hospital, either the Nurse in Charge or the Paramedic must login to the HAS to confirm that the

patient has been handed over. This changes the status on the HAS from 'Notified' to 'Handover'; and

- If the handover was over 15 minutes the Nurse in Charge selects the appropriate 'late reason' from a drop down list in the HAS.

In respect of requiring training it was also highlighted that all staff in ED are qualified clinicians and that local escalation plans are in place to guide staff on the actions to take over delayed handovers. To test the process above, we obtained data for a sample of 7 days (Mon-Sun) over 7 weeks during September and October 2017. We reviewed the WAST HAS data quality audit reports and found that there was a significant number of missing entries for the notification as shown in Table 9.

TABLE 9 (Source: HAS Data Quality Audit Reports, September and October 2017):

	Data Totals for Sample 7 days over 7 weeks		
Health Board	Total Notifications	No Notification	% No Notification
AB	734	276	37.6%
ABM	812	257	31.7%
BCU	1135	472	41.6%
CT	541	193	35.7%
CV	678	186	27.4%
HD	719	150	20.9%
Totals	**4619**	**1534**	**33.2%**

Through discussion with paramedics and hospital clinicians (i.e. Nurse in Charge) we found some contradiction over the responsibility for completing the HAS handover entries. Some thought it was the responsibility of the other party, particularly when the entry had not been completed. Others felt it was the responsibility of both parties which had on occasions resulted in the paramedic finding the entry had already been made by the hospital. It was also found during observation at site visits that the point at which the paramedic updated the HAS varied. Some 'notified' as soon as they entered the ED and then notified the Nurse in Charge, others the other way around. Whilst this finding is mainly anecdotal it was apparent that the data is not as accurate as it would be if there was clear guidance and understanding on HAS roles and responsibilities and a consistent approach at all hospitals over exactly what point the paramedics or clinicians update the HAS.

We analysed HAS data covering a sample of 7 days (Mon-Sun) over 7 weeks in September and October 2017. A summary of our findings is in Table 5 on page 24 and also shown below.

TABLE 5:

	Audit Sample 7 days			Late Reason						
0-9% 10-19% 20%+	Hospital	Total Number of Conveyances	Total Late	No Beds Available	No Reason Provided	Patient had Complex Needs	No Available Trolley/Chair	No Available Nurse or Medical Staff	Patient Taken Direct to Ward	Handover to Ambulance Staff
TOTALS for ALL six Health Boards		4661	1980	658	604	271	278	74	41	54
Total % Late			39.07%	29.98%	27.60%	17.03%	15.30%	3.88%	3.63%	2.58%

Source: WAST Informatics Department

Across Wales our sample results found almost 30% of handover delays are due to no bed availability. The main hospitals affected in our test were:

- ABU – Neville Hall 33.6%, Royal Gwent 27.8%
- ABMU - Morriston 56.6%, Princess of Wales 39.6%
- BCU – Glan Clwyd 35.5%, Maelor 26.7%, Ysbyty Gwynedd 37.0%
- CVU – University Hospital Wales 24.7%
- HDU – Bronglais 33.3%, Glangwili 32.9%, Prince Phillip 65.4%

The Table also highlights that the late reason is not completed over 25% of the time. The main hospitals who did not complete a reason in our sample were:

- Royal Glamorgan 40.7%, Princess of Wales 30.2%, Maelor 61.6% and Bronglais 39.6%.

If this data was complete and accurate it would provide both WAST and Health Boards with information to assist in reducing delays.

We recommend that:

- WAST and Health Boards ensure that the roles and responsibilities for recording data on the HAS are clearly understood. This should be supported by clear guidelines and protocols to ensure that the data can be relied upon as fair and accurate with consistent application of the time recording for the notification and handover.
- The Health Boards and WAST undertake an assessment over the use of the 'late reason' data and where and how it provides management information that can assist in managing handover delays, e.g. addressing issues such as a lack of beds.

8. Summary of Recommendations

The audit findings, recommendations are detailed in Appendix A together with the management action plan and implementation timetable.

A summary of these recommendations by priority is outlined below.

Priority	H	M	L	Total
Number of recommendations	**3**	**4**	**1**	**8**

Action Plan

Finding 1 Patient care during handover delays	Risk
One of the key feedback improvement themes that has been identified by the WAST Quality, Safety and Patient Experience team is in regards to the provision of nutrition, hydration and continence when a patient experiences a significant delay and is held outside the ED. Although the majority of patients conveyed to ED are admitted within 60 minutes there are over 1,300 patients each month that wait in an ambulance for long periods. In order to address continence concerns WAST now participates with the All Wales Continence Bundle to ensure that pre-hospital patient care is included in their monitoring. The approach regarding the appropriate provision of continence, nutrition and hydration is currently informal and there are no standard operating procedures. Arrangements vary and it would assist ambulance crews if Health Boards had a clearer process in place, particularly at those hospitals that typically experience handover delays in excess of 60 minutes. During our site visits at EDs we observed instances where WAST staff were providing food and drink to patients from stock cupboards held at hospitals. In addition to nutrition, hydration and continence considerations, significant handover delays can lead to patients requiring pressure sore area care.	Safe and dignified care is not provided to patients during handover delays.
Recommendation 1	**Priority level**
We recommend that: • Health Boards undertake a review of the arrangements in place for the provision of continence, nutrition and hydration at each hospital to	**Low**

ensure safe and dignified care is provided to patients during handover delays. • Although handover delays should not occur, where they do Health Boards should maintain a formal record of continence, nutrition and hydration offered and declined or accepted by the patient to evidence that adequate care in these areas was provided at reasonable times.	
Management Response 1	**Responsible Officer/ Deadline**
Whilst WAST recognises the importance of hydration and nutrition as well as pressure area care for delayed patients we feel that this recommendation can only be address via the Nurse Directors at each Health Board. WAST's preference is that all patients are handed over within the agreed 15 minute timescale thus negating the need for these issues to be considered as part of a handover delay plan. *Awaiting Health Board response. Report will be updated once provided.*	*Awaiting Health Board response. Report will be updated once provided.*

Finding 2 Conveyance to ED	Risk
Ambulance Quality Indicators (AQI's) There are a number of AQIs that relate to conveyance including the '*number of incidents that resulted in non-conveyance to hospital*' under '*Step 4: Give Me Treatment*' and the '*number of 999 patients conveyed to hospital*', including analysis by type and also those conveyed to hospital outside of the local Health Board area, under '*Step 5: Take me to Hospital'*. The Wales Audit Office Review of Emergency Ambulance Services Commissioning Arrangements dated July 2017 highlighted improvement areas for the AQIs. There is recognition that these indicators are still developing and require further refining to ensure they demonstrate key data in a clear way. There are also opportunities to improve the presentation of some indicators so that they become more accessible and understandable to readers and make them more meaningful in understanding patient outcomes and patient experiences. Additionally, the report highlighted that EASC members are not yet fully recognising and making the most of the potential that this information holds to inform decisions for improving the quality of ambulance services for patients across Wales. It is recognised that it would not be appropriate to set a 'target' of reduced conveyance following 'See and Treat' as this could incentivise decision making to the detriment of the patient. However, there could be improved usage of the conveyance data that would enable analysis that should improve handover delays and reduce the cost of lost hours. For example, improved analysis of patients who were seen by the hospital clinician and released without requiring treatment, highlighting that the conveyance was not necessary or identifying patients that were conveyed to ED where an alternative pathway	Ambulance conveyance not being managed effectively by Health Boards and WAST resulting in patients being conveyed to ED inappropriately.

was more appropriate, also known as 'missed opportunities'. Further analysis would also identify if paramedics require training and development and ensure that all crews have the guidance and understanding to reduce conveyance to ED. **GP Referrals** During this audit there was a particular point raised by all of the Health Boards and by WAST regarding the impact on conveyance and peaks in attendance to ED that result in handover delays. GP referrals are unscheduled and occur between GP hours, typically 10am to 6pm which can contribute to bottlenecks outside hospitals. Furthermore, we were informed that the time lost during hospital handover delays, coupled with the way the WAST clinical model is designed to prioritise calls in line with their red, amber, green rating, mean that ambulance crews are often unable convey GP referrals to hospital within the relevant department's opening hours. This is due to GP referrals typically being classified as green priority and results in the patient not receiving timely and appropriate care. It was generally recognised that improvements could be made by having scheduled conveyance for GP referrals where appropriate.	
Recommendation 2	**Priority level**
We recommend that: • WAST, in conjunction with EASC, evaluates how it records, analyses and reports on conveyance and how this information is used to gain assurance that conveyance to ED is restricted to those cases where the presenting condition determines that the ED is the appropriate pathway for the patient. WAST should develop ways of identifying missed opportunities, for example, through undertaking sample audits across a	**High**

range of indexed conditions and comparing conveyance rates across Health Boards. • WAST and Health Boards undertake a project to investigate whether GP referrals could be scheduled, where the patient condition allows, so that the time of arrival at the ED is more likely to improve the patient experience by being aligned to the demand and capacity models of the hospital.	
Management Response 2	**Responsible Officer/ Deadline**
• The Chief Ambulance Services Commissioner is leading a project to identify 'missed opportunities' which will be reported via the Performance Delivery Group. • A trial of 'scheduling' GP admission calls is underway in the Aneurin Bevan University Health Board area (Royal Gwent). This initiative will be evaluated in Q2 2018. *Further responses may be provided by Health Boards. Report will then be updated.*	Assistant Director of Planning and Performance August 2018 Assistant Director of Ambulance Response / Assistant Director of Clinical Contact Centres and Hear and Treat August 2018 *Further responses may be provided by Health Boards. Report will then be updated.*

Finding 3 Pathways to bypass ED	Risk
As part of the audit we were provided with a schedule of pathways managed through the Clinical Pathways Approval & Appraisal Group (CPAG). We were also provided with a list of pathways by each of the six Health Boards. We were unable to reconcile these and were therefore unable to verify that: • There is a clear and consistent process for WAST and Health Boards to formally approve each pathway; • Where a pathway is approved, there is a clear flowchart that has been made available and understood by WAST staff, including the crews and staff within the Clinical Contact Centres; • Each pathway is underpinned by detailed methodology to enable evaluation and monitoring of its success in reducing conveyance to ED; and • There is a process in place to review and identify pathways that are effective and should be considered for implementation at other Health Boards. We were informed by the WAST Operations staff interviewed, that paramedics have not always been able to follow a pathway as the alternative location did not have capacity or resource to receive and treat the patient at the time. This is currently not well recorded and as such we could not audit this in any detail. We also noted during our visits that the WAST crews have a pathways folder in the ambulance that should enable them to identify and follow the appropriate pathway. Again, we were unable to reconcile that all of the pathways were in the folder and overall we could not be confident that all staff were fully aware of them. In particular, if a crew conveyed across border to	Pathways for emergency care that bypass the ED are not communicated, shared and understood.

another Health Board Area it is unlikely that they would be aware of the local pathways. We were informed that tablet devices have recently been allocated to paramedics. This provides WAST with an opportunity, with software development, to provide an electronic tool of all the available pathways for paramedic's that could increase their ability to utilise a pathway and bypass conveyance to ED where appropriate.	
Recommendation 3	**Priority level**
We recommend that: • WAST and Health Boards undertake a review of the governance arrangements for the identification and approval of all pathways, together with a consistent process for recording, disseminating and measuring outcomes. • WAST ensures that any blocks or breaks that prevent the use of a conveyance pathway to bypass ED are recorded and management action is taken to address any issues. • WAST investigates the opportunity of developing an electronic pathways tool to assist paramedics in following pathways to bypass conveyance to ED.	**High**
Management Response 3	**Responsible Officer/ Deadline**
• Pathway approval, development, recording and dissemination will be co-ordinated via the Performance Delivery Group chaired by the Chief Ambulance Services Commissioner.	Chief Ambulance Services Commissioner /

Action Plan

• The HALO audit underway now will identify failed pathways. This will report in Q2 2018. The Chief Ambulance Services Commissioner's team have published, via the National Unscheduled Care Programme Board, a number of best practice unscheduled care measures. Within this is the need to capture opportunities for patients to have been diverted to the community rather than taken to ED. WAST have responded to this work stating that our view is that ED data would be better used as the source for these missed opportunity.	Assistant Director of Planning and Performance August 2018
• The Medical Director is chairing a development group for the Electronic Patient Clinical Record which will encompass this.	Assistant Director of Paramedicine August 2018
Further responses may be provided by Health Boards, particularly for the second part of this recommendation. Report will then be updated.	*Further responses may be provided by Health Boards, particularly for the second part of this recommendation. Report will then be updated.*

Finding 4 HALO Role	Risk
Each of the Health Boards has meetings with WAST although their frequency varies. Managing delays in hospital handover is a daily activity that is monitored by the minute. There is constant communication and dialogue between WAST and the hospitals, aligned with escalation plans. We were informed by each Health Board that they have a good partnership working arrangement with WAST and meetings occur daily, weekly or fortnightly, typically; • Daily 11am conference call between all Health Boards, WAST and the Welsh Government. • Daily bed management / patient flow hospital meetings ('huddles'). • Weekly or fortnightly meetings between ED staff and the WAST Area Operations Manager. Whilst the frequency and attendance at meetings (both formal and informal) varies, the purpose is the same with hospital staff aware that patient flow is key in preventing handover delay and bed management forms a fundamental role. We requested minutes of these meetings but were not provided with them and concluded that many of these meetings are indeed not minuted. We were informed at some hospitals that attendance at site meetings by a WAST representative was often limited by the availability of the Clinical Team Leader (CTL). Other hospitals have a designated WAST Hospital Ambulance Liaison Officer (HALO) in place which results in better ongoing oversight of the handovers at the hospital. The feedback we received during our hospital visits was that most would value having a HALO as it provides more opportunity for WAST to liaise with the hospital staff to assist in managing hospital handovers.	Ineffective meetings between staff at WAST and Health Boards to manage emergency care flow. This could lead to poor decision-making negatively impacting WAST and Health Boards ability to reduce handover delays and patient health.

Action Plan

Recommendation 4	Priority level
We recommend that WAST undertakes a cost benefit analysis on the potential efficiency gains that may be available through the HALO role. This could be trialled initially at those hospitals with the lowest handover rates to measure the impact it has on improving handover performance.	**Medium**
Management Response 4	**Responsible Officer/ Deadline**
Using Winter pressure monies, HALO cover has been established at the seven worst performing sites for handover delay. This cover will run until 31 March 2018 and will then be evaluated.	Assistant Director of Ambulance Response / Chief Ambulance Services Commissioner April 2018

Finding 5 Strategic forums	Risk
Whilst there is communication between WAST and Health Boards on operational matters, as highlighted in finding 4 above, there was little evidence of strategic direction and related forums. Such would assist in leading on and managing the issues of handover delays, conveyance, pathways, patient flow, HAS data quality and enable better uniformity and best practice sharing.	Opportunities to address All Wales issues and seek to develop consistent approaches may be missed.
Recommendation 5	**Priority level**
We recommend that WAST identifies all meetings that are held between WAST and Health Boards at hospital, Health Board and national level and determines the need for less or more and how they are recorded (agendas, minutes, action plans). In particular, how strategic decision making and sharing of best practice is performed in respect of handover of care at Emergency Departments.	**Medium**
Management Response 5	**Responsible Officer/ Deadline**
This activity will be mapped out by the Planning and Performance team with a view to streamlining and ensuring strategic direction making and sharing of best practice is achieved. *Further responses may be provided by Health Boards. Report will then be updated.*	Assistant Director of Planning and Performance May 2018 *Further responses may be provided by Health Boards. Report will then be updated.*

Finding 6 Patient flow initiatives	Risk
We reviewed Board meeting minutes for each Health Board and found that delayed handovers are included in performance reports. It was clear that all Health Board executives are aware of the problem of handover delays and set targets and actions to reduce them. As noted in Action 1 above, we have also reviewed the IMTP's for the six Health Boards and found that emergency care is included with reference to developing joined-up health and social care services. Whilst this is noted as a priority by all Health Boards, the AQI's over the past 12 months have shown little improvement in performance on handover delays. The only Health Boards that are near the 15-minute handover target of 100% are Cwm Taf University Health Board achieving almost 90% each month and Hywel Dda University Health Board achieving circa 80%. Cwm Taf University Health Board's performance may be attributed to its project to reduce delays and improve the flow of patients across hospital, GP and community services. The 'Focus on Flow' project won the NHS Wales Improving Patient Safety Award 2014. It should be acknowledged that all of the Wales NHS Health Boards have undertaken projects and initiatives to improve unscheduled care and address patient flow. Many of these are currently in operation. What is clear from the AQI's is that the initiatives applied by Cwm Taf University Health Board have been very effective in respect of the impact on WAST and lost ambulance hours as a result of handover delays.	Opportunities for sharing best practice that reduces handover delays may be missed resulting in lost hours.

It is surprising, given the transparency of this performance information over the past 3 years with each Health Board receiving the quarterly AQIs showing Health Board comparative data, that those lower performing Health Boards have not done more to emulate models of the higher performers, notably, Cwm Taf.	
Recommendation 6	**Priority level**
We recommend that WAST and Health Boards evaluate the key factors adopted by Cwm Taf University Health Board that resulted in their handover performance improving from circa 50% to 90% since 2013 and work together to drive similar improvement.	**Medium**
Management Response 6	**Responsible Officer/ Deadline**
This work must be driven centrally via the National Unscheduled Care Programme Board and the Performance Delivery Group chaired by the Chief Ambulance Services Commissioner. *Further responses may be provided by Health Boards, the National Unscheduled Care Programme Board and the Performance Delivery Group. Report will then be updated.*	Chief Ambulance Services Commissioner August 2018 *Further responses may be provided by Health Boards, the National Unscheduled Care Programme Board and the Performance Delivery Group. Report will then be updated.*

Finding 7 Delayed handover clinical triage	Risk
The Welsh Government health circular clearly states that *"WAST crews should not routinely be responsible for monitoring patients over prolonged periods outside A&E, and hospital clinicians should be responsible for overseeing the assessment of patients."* The University Hospital of Wales (UHW) was the only hospital of the 6 visited that did not undertake a face to face assessment of the patient before admission to the hospital. In all other cases the clinician carried out an initial patient assessment in the back of the waiting ambulance as required. We were informed by staff at UHW that that the ambulance triage by ED clinicians is not one supported by the Royal College of Emergency Medicine and that whilst nurses do not enter the ambulance, the risk to patients is managed through the protocols and processes in place; a clinical assessment by the Majors Assessment Nurse (MAN) through communication with the paramedic. The current practice at the UHW is contrary to Point 3 of the Welsh Government guidance above. This is a conscious decision by the hospital, as outlined above, and results in greater responsibility on the paramedics to assess the patient condition and monitor that condition for over 30 minutes and sometimes several hours. There is also a missed opportunity for the ED clinician to undertake an assessment at an earlier stage that could have resulted in the patient being redirected, avoiding an unnecessary wait for the patient and lost hours to WAST.	Patients are not clinically assessed resulting in them coming to harm. There is also a missed opportunity for the ED clinician to undertake an assessment at an earlier stage that could have resulted in the patient being redirected, avoiding an unnecessary wait for the patient and lost hours to WAST.

Recommendation 7	Priority level
We recommend that WAST seeks confirmation from Welsh Government regarding responsibility for undertaking a clinical assessment of patients prior to admittance to the ED.	**High**
Management Response 7	**Responsible Officer/ Deadline**
The National Unscheduled Care Programme Board has confirmed that the expectation is that this Welsh Health Circular is complied with. *Further responses may be provided by Health Boards, Cardiff and Vale University Health Board in particular. Report will then be updated.*	Completed. *Further responses may be provided by Health Boards, Cardiff and Vale University Health Board in particular. Report will then be updated.*

Finding 8 HAS Data	Risk
Through discussion with paramedics and hospital clinicians (i.e. Nurse in Charge) we found some contradiction over the responsibility for completing the HAS handover entries. Some thought it was the responsibility of the other party, particularly when the entry had not been completed. Others felt it was the responsibility of both parties which had on occasions resulted in the paramedic finding the entry had already been made by the hospital. It was also found during observation at site visits that the point at which the paramedic updated the HAS varied. Some 'notified' as soon as they entered the ED and then notified the Nurse in Charge, others the other way around. Whilst this finding is mainly anecdotal it was apparent that the data is not as accurate as it would be if there was clear guidance and understanding on HAS roles and responsibilities and a consistent approach at all hospitals over exactly what point the paramedics or clinicians update the HAS. We analysed HAS data covering a sample of 7 days (Mon-Sun) over 7 weeks in September and October 2017. The analysis highlighted that the late reason is not completed over 25% of the time. If this data was complete and accurate it would provide both WAST and Health Boards with information to assist in reducing delays.	Incomplete and inaccurate data could undermine the quality of the management information reported. This could lead to poor decision-making negatively impacting WAST and Health Boards ability to reduce handover delays and patient health.
Recommendation 8	**Priority level**
We recommend that WAST and Health Boards: • WAST and Health Boards ensure that the roles and responsibilities for recording data on the HAS are clearly understood. This should be supported by clear guidelines and protocols to ensure that the data can	**Medium**

be relied upon as fair and accurate with consistent application of the time recording for the notification and handover. • The Health Boards and WAST undertake an assessment over the use of the 'late reason' data and where and how it provides management information that can assist in managing handover delays, e.g. addressing issues such as a lack of beds.	
Management Response 8	**Responsible Officer/ Deadline**
• HAS Guidance to be recirculated to WAST staff. • An audit of 'late reason' date will be undertaken and findings used to inform future action plan. *Further responses may be provided by Health Boards. Report will then be updated.*	Assistant Director of Clinical Contact Centres and Hear and Treat August 2018 Head of Health Informatics / Assistant Director of Clinical Contact Centres and Hear and Treat August 2018 *Further responses may be provided by Health Boards. Report will then be updated.*

Summary of Health Board IMTPs integration with WAST

Organisation	Joint Priorities	Health Board/Trust actively engaged on priority
Abertawe Bro Morgannwg	1) 111 pathfinder, including Pre-pathfinder initiatives 2) Working together to improve hospital handover (in line with guidance) 3) NEPTS BC implementation Pathways implementation: Mental Health / Early Adopters / Acute GP (Swansea) / Falls vehicle (Swansea) / help point plus (Swansea) / end of life (all wales work)	1) 111 ongoing engagement with the Health Board 2) Handover ongoing engagement 3) NEPTS minimal engagement 4) Pathways ongoing engagement except for End of Life
Hywel Dda	1) Collaborative AP development pilot with primary care partners and GPOOH services 2) Mid Wales Health Collaborative 3) Joint Performance action plan 4) 111 Pathfinder - Carmarthen 5) NEPTS BC implementation 6) Pathways implementation: Stroke / end of life (all wales work) 7) Retention of dedicated ambulance vehicle (DAV) Withybush	1) Joint interviews with two APs appointed - target date of go live early April 16 2) WAST supporting the collaborative at both public events and through the work streams 3) Action plan agreed, implemented and kept under regular review and refinement. 4) Locality Manager part of implementation group 5) Engagement 6) Stroke pathway agreed 7) Ongoing discussions with Health Board to make this service part of core business.
Aneurin Bevan	1) Working together to improve hospital handover (in line with guidance) 2) Development of new model for unplanned care - Code Zero RED AMBER Release of EA's to support patients in community when delays impact 3) SCCC Joint partnership project (hyper acute stroke, ENT, etc.) 4) NEPTS BC implementation 5) Pathways implementation: Mental Health / neck of femur / Falls / end of life (all wales work) / Community Nursing 24 hour project	1) Joint WAST and AB weekly meeting and partnership work with HALO 2) SOP shared with AB and control, request implemented as required with DGH's. 3) Continued WAST engagement with AB 4) Active engagement – proposed pilot live for AB early April. 5) Joint Falls service working well with weekly conference with Almanac, Community nurse 24/7 live 29th Feb

Betsi Cadwaladr	1) Alcohol treatment centre in Wrexham 2) NEPTS BC implementation 3) Pathways implementation: Mental Health / district nurse / MIU / Falls / end of life (all wales work) / interface with GPOOH and clinical support CCC (local to BCU area) 4) BCU acute service re-configuration 5) Working together to improve hospital handover and patient experience through improved performance (in line with guidance)	1) Project completed in partnership with Health Board and others 2) Engagement 3) Pathways ongoing engagement 4) Actively engaged on project teams/board 5) Actively engaged
Cardiff & Vale	1) Alcohol treatment centre 2) Development of new model for unplanned care - Code Zero RED AMBER Release of EA's to support patients in community when delays impact 3) Working together to improve hospital handover (in line with guidance) 4) NEPTS BC implementation also PCS transition from Whitchurch to Lansdowne 5) Pathways implementation: Falls / end of life (all wales work) / emergency obs and Gynae / Ambulatory care / Barry MIU Pathway / Cardiac stemi 6) Strategic estates Planning pending substantial road network potential changes at UHW	1) Joint working with external budget removed 2) Joint meetings in process 3) Joint Process Mapping 4) Regular joint meetings ongoing 5) Some pathways already in place or being developed 6) Joint engagement with ARC development
Cwm Taf	1) Implementation of South Wales plan inc. diagnostic centre, paeds, obs &neo 2) Optimising use of paramedic pathfinder 3) Evaluation of Cwm Taf Explorer 4) NEPTS BC implementation 5) Pathways implementation: Mental Health / MIU / fractured neck of femur / Falls / end of life (all wales work) / community integrated assessment service 6) Acute medicine model whereby pathways have been developed and agreed with WAST for patients going to Royal Glamorgan Hospital.	1) WAST attends all meetings 2) MD and P Care lead involved 3) Equal partners 4) Engagement 5) Ongoing work – regular meets to develop and improve/tweak 6) Ongoing monthly clinical meetings

Powys	1) Meaningful and joint engagement in Future Fit Programme 2) Mid Wales Collaborative – focus on exploring modes for community, new model for Bronglais 3) NEPTS BC implementation	1) Option appraisal being reconsidered, assistant head of Ops in discussion. 2) Supporting public meetings and work streams 3) Minimal involvement

Source: WAST IMTP 2016/17-2018/19 Appendix 5

Audit Assurance Ratings

 **Substantial assurance** - The Board can take **substantial assurance** that arrangements to secure governance, risk management and internal control, within those areas under review, are suitably designed and applied effectively. Few matters require attention and are compliance or advisory in nature with **low impact on residual risk** exposure.

 **Reasonable assurance** - The Board can take **reasonable assurance** that arrangements to secure governance, risk management and internal control, within those areas under review, are suitably designed and applied effectively. Some matters require management attention in control design or compliance with low to **moderate impact on residual risk** exposure until resolved.

 **Limited assurance -** The Board can take **limited assurance** that arrangements to secure governance, risk management and internal control, within those areas under review, are suitably designed and applied effectively. More significant matters require management attention with **moderate impact on residual risk** exposure until resolved.

 **No Assurance** - The Board has **no assurance** that arrangements to secure governance, risk management and internal control, within those areas under review, are suitably designed and applied effectively. Action is required to address the whole control framework in this area with **high impact on residual risk** exposure until resolved

Prioritisation of Recommendations

In order to assist management in using our reports, we categorise our recommendations according to their level of priority as follows.

Priority Level	Explanation	Management action
High	Poor key control design OR widespread non-compliance with key controls. PLUS Significant risk to achievement of a system objective OR evidence present of material loss, error or misstatement.	Immediate*
Medium	Minor weakness in control design OR limited non-compliance with established controls. PLUS Some risk to achievement of a system objective.	Within One Month*
Low	Potential to enhance system design to improve efficiency or effectiveness of controls. These are generally issues of good practice for management consideration.	Within Three Months*

* Unless a more appropriate timescale is identified/agreed at the assignment.

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Audit

The audit was undertaken using a risk-based auditing methodology. An evaluation was undertaken in relation to priority areas established after discussion and agreement with WAST. Following interviews with relevant personnel and a review of key documents, files and computer data, an evaluation was made against applicable policies procedures and regulatory requirements and guidance as appropriate.

Internal control, no matter how well designed and operated, can provide only reasonable and not absolute assurance regarding the achievement of an organisation’s objectives. The likelihood of achievement is affected by limitations inherent in all internal control systems. These include the possibility of poor judgement in decision-making, human error, control processes being deliberately circumvented by employees and others, management overriding controls and the occurrence of unforeseeable circumstances.

Where a control objective has not been achieved, or where it is viewed that improvements to the current internal control systems can be attained, recommendations have been made that if implemented, should ensure that the control objectives are realised/ strengthened in future.

A basic aim is to provide proactive advice, identifying good practice and any systems weaknesses for management consideration.

Responsibilities

Responsibilities of management and internal auditors:

It is management's responsibility to develop and maintain sound systems of risk management, internal control and governance and for the prevention and detection of irregularities and fraud. Internal audit work should not be seen as a substitute for management's responsibilities for the design and operation of these systems.

We plan our work so that we have a reasonable expectation of detecting significant control weaknesses and, if detected, we may carry out additional work directed towards identification of fraud or other irregularities. However, internal audit procedures alone, even when carried out with due professional care, cannot ensure fraud will be detected. The organisation's Local Counter Fraud Officer should provide support for these processes.

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