Ymddiriedolaeth GIG
Gwasanaethau Ambiwlans Cymru
Welsh Ambulance Services
NHS Trust

Bwrdd Iechyd Prifysgol
Caerdydd a'r Fro
Cardiff and Vale
University Health Board


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2nd October 2018

Dr SJ Richards
HM Assistant Coroner
South Wales Central Area
The Coroner's Court
Courthouse Street
Pontypridd
CF37 1JW

Dear Dr Richards

**Re: Mr Steven John Welch (deceased)**

This is the response of the Welsh Ambulance Services NHS Trust to the Regulation 28 Report to Prevent Future Deaths that you issued to ourselves (the Trust) on 7 August 2018 following the conclusion of the inquest the late Mr Steven John Welch.

Within your report you asked the Trust to consider and address the following specific issues:

**Training needs of 999 emergency call telephonists for medical assistance.**

I can confirm that the call handlers, known as Emergency Medical Dispatchers (EMDs), training schedule was last reviewed prior to the last induction of new recruits in July 2018. All trainees have to be signed off as competent before they are allowed to go live within the operational service. The auditors within the clinical contact centre act as mentors to the new EMDs and are experts in the level of competency required to take 999 calls.

There is another group of staff who are responsible for allocating ambulance responses to incidents, these are called Allocators who dispatch the ambulance via the Computer Aided Dispatch (CAD) system. They can electronically send a message


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Prif Weithredwraig /Chief Executive: Jason Killens
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*The Trust welcomes correspondence in Welsh or English*

to the vehicles to allocate them to an incident. The Allocators are supported by Dispatchers who assist with meal break management, vehicle breakdowns and radio communications etc.

We do not expect Allocators/Dispatchers to maintain their call taking skills unless they are undertaking regular calls. If for any reason an EMD has not been call taking due to prolonged sickness or being seconded to a different role they would be expected to undertake a refresher course and have their competency reassessed prior to commencing live independent call taking.

The purpose of the Medical Priority Dispatch System (MPDS) Quality Assurance and Improvement is to ensure staff adhere to a standardised practice and procedure as defined by the International Academies of Emergency Dispatch® (IAED™) when using their prioritisation software product. The quality improvement audit process is intended to support staff and identify learning needs as well as recognising performance strengths. Therefore, auditing calls is a vital function to ensure these standards are maintained. If any skills gaps are identified the EMD will receive extra coaching, be supported with a coaching plan and capability may be considered if they fail to reach an acceptable standard following appropriate support.

EMDs are required to undertake recertification every 2 years, sit an exam and demonstrate they have undertaken 24 hours of Continuing Dispatch Education (CDE) in that time.

With regard to the use of the breathing tool the Trust is and has been working with the International Academy of Emergency Dispatch (IAED) to try and improve the assessment of breathing over the phone. It is well recognised that this is very difficult to assess with callers and to aid EMDs the Breathing Verification tool has been developed. It is very clear in MPDS guidelines that if there is uncertainty about whether the patient is breathing they should act as if the patient is not breathing. If the patient is unconscious and is reported as breathing abnormally the caller is asked to check if they can feel or hear breathing. If the answer is "no", then Cardio Pulmonary Resuscitation is started. If the answer is "yes", the breathing will be further evaluated using the Breathing Verification tool. The caller is asked to indicate every time the patient takes a breath to ensure the patient is breathing effectively. The auditors monitor the use of the breathing tool to ensure it is being used correctly.

Whilst the Trust does not propose to change its systems following the receipt of the Regulation 28 report, I hope this reassures you that the Trust does have in place systems for considering call takers initial training needs, as well as monitoring their ongoing performance, with built in occasions to identify and act on remedial training needs.

**The complexity of the emergency call ranking system (MPDS) for users and whether or not this may contribute to errors occurring.**

MPDS has been designed to generate a code in response to an emergency call. As I am sure you will appreciate given the vast number of possible reasons for making a clinical call and the clinical conditions that can exists, MPDS can generate 1,933 different codes. These codes are then matched to the 5 different categories of response (Red, Ambers and Greens) in the Clinical Response Model.

MPDS has been designed to be screen driven thus making it easier for the EMD to use. It follows a 'flow chart' type system with one answer leading to the next question. This depends on the EMDs correctly recording into the system the responses received from the caller.

In response to the Regulation 28 received from yourself we have undertaken a review of the calls taken for the first 6 months of the year to explore if there is any evidence to support the supposition that MPDS is too complex for call handlers to use effectively. Of the calls audited only 7% of calls were non-compliant. A total of 85% were of high compliance and in order to get a recorded result of high compliance the call taker has to have scored a perfect 100%.

| | Percent | Number of Cases |
|---|---|---|
| High Compliance | 85% | 2990 |
| Compliant | 6% | 203 |
| Partial Compliance | 2% | 60 |
| Low Compliance | 0% | 15 |
| Non-Compliant | 7% | 247 |
| Totals | 100% | 3515 |

From this data it can be concluded that the EMDs generally do use the MPDS software correctly. The audit data was examined to identify if there was any particular aspect of the call taking that the EMDs had difficulty with. No one aspect of call taking stood out as presenting an issue other than the delivery of Dispatch Life Support (DLS) instructions. Dispatch Life Support includes all instructions given during the call, this does not affect the category of the call. The DLS deviations relate to a moderate deviation. Moderate deviations are those deviations from expected performance considered to be incongruent with the desired function and design of the protocol without a direct impact on safety. These deviations can affect the most appropriate instructions provided, but they are not expected to have a direct negative impact on the patient/victim or scene outcome.

On each of the critical deviations 97% or more of the times the calls were managed correctly. A critical deviation are those deviations from expected performance that not only fail to meet the minimum standard of practice but also pose a substantial risk to the caller or patient/victim or that impact responder safety. Examples of critical deviation can include the address not being verified correctly, even if the correct

address was given, failure to choose the correct chief complaint, however this might not affect the final categorisation. So although they will be marked as critical it does not always follow that the patient came to harm.

Having reviewed this evidence the Trust does not believe the EMDs find MPDS too complex to use. The Trust will continue to monitor the EMD's performance using MPDS and continue to work to improve call takers performance.

| Percentage of Deviations | | Critical | Major | Moderate | Minor |
|---|---|---|---|---|---|
| Case Entry | Agency | 0.10% | 0.31% | 0.56% | 0.07% |
| Chief Complaint | Agency | 2.45% | 0.09% | 0.13% | 0.03% |
| Key Questions | Agency | 0.36% | 0.13% | 0.41% | 0.01% |
| Dispatch Life Support | Agency | 1.01% | 0.53% | 16.77% | 0.92% |
| Final Coding | Agency | 2.78% | 0.58% | 0.00% | 0.00% |
| Customer Service | Agency | 0.34% | 0.00% | 0.11% | 0.49% |
| Total Accreditation Acceptance | Agency | 0.84% | 0.26% | 0.45% | 0.71% |

The Trust is an MPDS Centre of Excellence, one of only 250 such centres worldwide. This is from a pool of over 2500 using the system. Annually, MPDS is used in the prioritisation of 65 million Emergency Medical calls worldwide and has been shown to be a safe system.

**The failure to predict accurately emergency demand over a public holiday thereby not having sufficient resources at hand or in reserve.**

As described at the Inquest the Trust currently uses the previous year`s emergency demand profile, with a percentage uplift when trying to predict the daily emergency demand.

The Trust is aware of the need to consider changes to the demographics in Wales, both current and predicted, and as such the Trust's Planning & Performance Directorate, since July 2018, have been working on a project in relation to Optima Predict.

Optima Predict is a powerful interactive strategic planning solution for Emergency Medical Services (EMS) that provides a platform to undertake Operational Demand & Capacity Review.

Optima Predict takes into account key performance indicators (KPIs) such as response times, vehicle coverage and shift requirements and allows users to quickly build scenarios that make logistical and business sense. It can be used to estimate call volumes, for the coming year and beyond, test different coverage and posting plans, test proposed roster changes and then analyse their impact, enabling the Trust to select the most effective option and take action.

The project is ongoing and the Trust is currently modelling the plan for Optima Predict and the issues that will be selected for analysis. I hope this reassures you that the Trust is taking action to address and further strengthen future planning by using this software.

The use of the software will assist the Trust in planning the utilisation of available resources to inform our Integrated Medium Term Plan.

The Trust has also undertaken the recruitment of 90 additional staff, who are undergoing training and will be operational by December 2018. Whilst the increase in staff is pan Wales, a proportion of the new staff will be operational in the Cwm Taf area. This will enable the Trust to increase the number of staff available to it and the number of staff that can be considered as being available "in reserve", although we are obviously restricted by the number of vehicles available and available budgets.

**The impact of lengthy patient handover delay times between emergency ambulance and recipient hospitals, upon the delivery of an effective emergency service.**

The Cwm Taf University Health Board (the Health Board) and the Trust already work closely together to minimise delays in hospital handover and ensure patients receive the care they need in a timely manner. The Health Board can experience occasions when the number of ambulances arriving at the emergency unit temporarily exceeds the capacity of the unit to safely receive the patients, leading to a delay in handover from the Trust's crews. We are very aware that these waits are not only sub-optimal for the patient on the ambulance at the time but can also affect the ability of the Trust to respond to patients in the community. For these reasons we endeavour to keep these delays to an absolute minimum and closely monitor our performance on an hourly and daily basis. It should be noted that Cwm Taf University Health Board is commended for their focus on flow improvement model that has achieved the least lost hours for hospital handover from the Trust in NHS Wales.

Whilst our colleagues at the Health Board will share with you the actions they are taking to continue to minimise handover delays, in response to the Regulation 28 report you issued separately to them, I would like to assure you that the Trust also continues to try and avoid conveyance of patients to the Emergency Departments when it is safe to do so. Whilst the following actions do not directly affect how long ambulances take to hand over the care of patients when they arrive at hospitals, these actions see a reduction in the number of patients being conveyed to Emergency Departments across Wales and improve the flow of patients within the NHS. Please find appended to this response further details of these supporting actions.

The Trust has developed robust winter planning actions that will support the requirements of this Regulation 28 report received from you. We would like to reassure you that the Welsh Ambulance Services NHS Trust and Cwm Taf University Health Board continue to work together to drive the improvements and learning forward that we commenced last year and we continue to strengthen the out of hospital alternative pathways to improve efficiency and effectiveness of care for our patients and make best use of our resource.

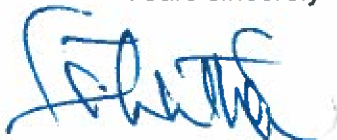
**In conclusion:**

We hope that we have been able to assure you that as a result of the Regulation 28 the Trust:

- Has in place robust systems for the training of call taking staff and systems for the continued monitoring.
- Has undertaken a review of errors made by call takers in the last 6 months and the findings provide assurance that the complexity of MPDS is not contributing to the errors made.
- Will be using the Optima Predict software to assist the Trust in more accurate predictions in relation to emergency demand and resource deployment.
- Continues to work collaboratively with Cwm Taf University Health Board to further reduce patients being conveyed by ambulance to the Emergency Units, increasing the capacity of appropriate resources and assisting in patient flow.

We would like to extend the offer to meet with you to discuss our response in more detail and to provide you with assurance of our commitment to learning and the continuous quality improvement our service provision.

Yours sincerely



**Jason Killens**
**Chief Executive**