



Swyddfa'r Prif Weithredwr a'r Cadeirydd

Chair and Chief Executive's Office

Our Ref: JK97/et

27 July 2022

Jack Sargeant MS
Chair
Petitions Committee
Welsh Parliament
Cardiff Bay
Cardiff
CF99 1SN

Sent via email:- petitions@senedd.wales

Dear Mr Sargeant

Re: Petition P-06- 1274: Stop the Removal of the Rapid Response Vehicle for Monmouth

Many thanks for your correspondence in relation to the above matter. As you will know, we have met with members of the campaign group, led by Lorraine Allman, and have recently provided to them the enclosed briefing, which outlines our response to some of the petitioners' core questions.

As you might expect, there are some core facets to the roster review which, while they might feel counter intuitive, are very much borne out in the extensive modelling we have undertaken. These are explained in further detail in the briefing enclosed but, in summary, there are three main issues which we have to reflect in our planning:

- Everything we do is on a health board level. We don't do any modelling at a locality level as we are not commissioned on a locality or county basis
- Demand is generally low per head of population in the Monmouthshire area which will have been factored into the modelling

Mae'r Ymddiriedolaeth yn croesawu gohebiaeth yn y Gymraeg neu'r Saesneg, ac na fydd gohebu yn Gymraeg yn arwain at oedi

The Trust welcomes correspondence in Welsh or English, and that corresponding in Welsh will not lead to a delay

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- All of our modelling is done via a very sophisticated independent/external simulation model. This takes information on where demand occurs, what road journeys are like, how long ambulances stay at scene, how often the patients have to be conveyed
- This model is used to determine the best mix of hours and locations to get the best performance for the health board population within the resources that are available to us. There is more information about this in the accompanying document.

Our core aim is to improve response times for patients across Wales. Our commissioners, the seven health boards in Wales, supported our 2019 Demand and Capacity Review, one of the outputs of which was the roster review, and are fully supportive of its implementation. Indeed, we are coming under pressure to deliver on it. Similarly, the Minister for Health and Social Services is fully briefed.


We, and our commissioners, scrutinise our performance with forensic interest, and we will, of course, be keeping an eye on performance as new rosters are rolled out across Wales. This process will begin in September and take a few months to fully complete.

We have afforded petitioners the opportunity to visit our clinical contact centre at Vantage Point House, Cwmbran, to understand more about how resources are dispatched and allocated. Similarly, we have offered an opportunity for petitioners to see a demonstration of our modelling software, so that they can see at first hand the level of sophistication it uses. We await their response to these offers.

We do realise that petitioners have the very best interests of their community at heart, and I have reassured them, as I have a number of politicians across Wales, that our sole focus is on delivering improvement, rather than detriment, for our patients.

In summary, I hope the information we have provided is helpful, but I remain happy to discuss any matters where you feel further clarity is required.

Yours sincerely



Jason Killens
Chief Executive

Enc.

Cc: Rachel Marsh, Executive Director of Strategy, Planning and Performance
Estelle Hitchon, Director of Partnerships and Engagement

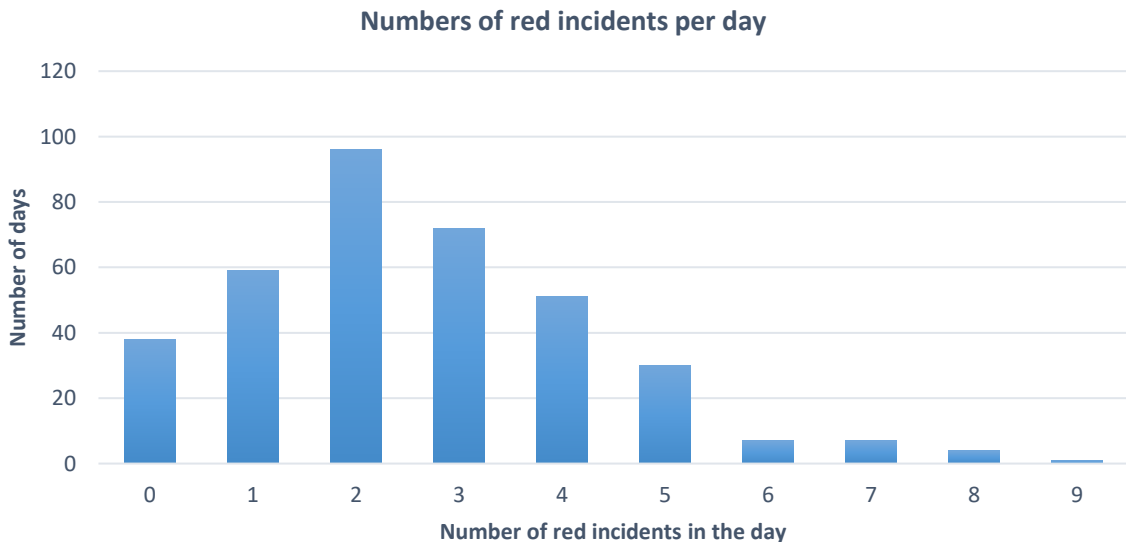
Monmouthshire

What is considered to be a low level of RED calls?

The Welsh Ambulance Service does not use a rigidly defined measure of what constitutes a low level of red calls. The table below provides a snapshot of demand per 10,000 population for each locality within the Aneurin Bevan Health Board area. This shows that Monmouthshire has the lowest level of demand per 10,000 population.

2021 Data	Red Incidents	Total Incidents	2021 Population <small>(new census data)</small>	Red per 10,000	Total per 10,000
Monmouth	965	13,214	93,000	104	1,421
Blaenau Gwent	1,029	11,743	66,900	154	1,755
Caerphilly	2,381	25,584	175,900	135	1,454
Newport	2,187	23,942	159,600	137	1,500
Torfaen	1,207	18,382	92,300	131	1,992
Whole Aneurin Bevan	7,769	92,865	587,700	132	1,580

The graph below shows the number of red calls per day across the Monmouthshire area. This indicates that in 2021 there were 38 days with no red calls, 59 days with 1 red call and 96 days with 2 red calls.



The modelling that the Trust undertakes, whether that be with ORH or Optima (our external and independent operational and simulation modelling providers), uses this historical demand data to determine the best number, type and location of responding vehicles. This will take account of both the need to respond as quickly as possible but also the need to make sure that each vehicle is utilised as efficiently as possible thus offering the best value for local communities.

On reflection and review of the data for Monmouthshire from WAST, ABUHB, and QOF presented today, can you confirm that all of this data has been included in the original (ORH) and subsequent (Optima) modelling? If not, (for example the QOF data you confirmed has not been), please advise why not?

In 2019, an independent Emergency Medical Service Demand & Capacity Review was undertaken by ORH. The Review was undertaken on behalf of WAST and the Emergency Ambulance Services Committee (EASC) which represents the seven health boards in Wales. EASC commissions ambulance services across Wales and commissions the Trust to deliver levels of performance/patient safety (and report on them) at a health board level. The Review outcomes and recommendations are therefore based at a health board level.

A key element of the review was a consideration of how 999 demand may change over a 5 year period. ORH used 3 statistical techniques for forecasting patient demand including:

- Projecting forward the average demand trend seen in historical data from 2012 to 2018 (this gave an overall annual demand increase projection of 2.1% across Wales)
- Holt Winters statistically seasonally adjusted time series projection (this gave an overall annual demand increase projection of 2.3% across Wales)
- Analysis of demand by age and gender forecasted forward using ONS predictions of population changes in each health board area (this gave an overall annual demand increase projection of 2.5% across Wales)

The Trust in collaboration with the Chief Ambulance Services Commissioner agreed that the middle forecast would be used i.e. a 2.3% increase in demand per year. It is noted that this forecast demand increase is greater than the projected national population increase, and is reflecting therefore the increasing morbidity of the populations across Wales.

There are detailed disease registers which are used to support the Quality Assurance and Improvement Framework (previously QOF) which provide information on rates of certain disease types in each health board / locality / GP practice. This data cannot be used to predict 999 demand, as there is no link that we are aware of which provides a direct correlation between the numbers of people with dementia for example and the number of 999 calls that they will generate.

We are confident that the use of demand trends over time is the best way to forecast future demand. The methodology we have used is similar in nature to that used across the UK and internationally when forecasting/modelling ambulance activity, capacity and performance.

One other important point to note is that the Trust continues to update its modelling where it sees changes to demand that were not forecast in the 2019 review. As an example, we have recently seen significant increases across Wales in the number and proportion of red calls and we have therefore updated our modelling and agreed consequent increases in resources with our commissioners as a result.

How are the required vehicle numbers and types identified to meet the forecast demand?

The demand and capacity review undertaken by ORH in 2019 identified the optimum shift patterns and rosters to be implemented at the end of 2 years growth in staff numbers i.e. in 2021. Commissioners have provided resources to support 263 WTE additional front line staff over the last 2 years.

In order to be able to determine the best use of this staff resource, ORH built a powerful simulation model of the service. This is a computer representation of a real life system and its behaviour. ORH have created a virtual replica of the Welsh Ambulance Service.

ORH built the model by taking a large download of data from the Trust's Health Informatics function. This included patient incident demand data for seven years, actual average road speeds for the Trust's different ambulances, rosters and other information e.g. expected hospital handover delays. Once the model was built, ORH tested it to ensure that when the simulation model was run, it delivered the same level of performance as real-life. Once they were satisfied that the model was a true replica of real life, they were then able to make changes to the model, for example increasing demand, and identify the impact of these changes on ambulance response times. They can also use the model to identify the optimum hours of operation and locations of each vehicle type to maximise performance (response times). The embedded link below links to a video on the ORH website which explains in some more detail how this type of simulation model works.

[Emergency Medical Services – ORH \(orhltd.com\)](http://orhltd.com)

Based on this very sophisticated model, ORH have not recommended that a Cymru Hugh Acuity Response Unit (CHARU) be based in Monmouth. In looking ahead another three years, and including a further three years of demand increases, ORH would still not recommend a CHARU in that location.

It should be noted that the absence of the physical CHARU in an area does not mean that area will not receive the service. All WAST resources are deployed dynamically and the closest resource to any emergency will always be deployed, even if this is coming from out of county. That is, and always has been, the case.

If there are a low-level of RED calls in the area, and the RRVs can't take those seriously ill (assumed category RED) patients to hospital, why invest in more EAs?

Emergency ambulances (EAs) can respond to a wider patient incident range than an RRV (now CHARU) and they are a conveying resource i.e. they can take patients to hospital. RRVs (now CHARU) primarily focus on RED (immediately life threatening incidents), which accounts for 10% of total patient demand. The rationale for investing in CHARU is that with enhanced paramedical skills (beyond those of a standard paramedic deployed today) and an often faster response than an EA, CHARU practitioners can help keep the sickest patients alive and/or stable prior to conveyance by a supporting emergency ambulance. With their focus exclusively on the sickest patients and enhanced skills, it is anticipated survival rates and therefore outcomes will improve.

The bulk of the Trust's patient demand is in the Amber (serious, but not immediately life threatening) category which accounts for 72% of patient demand. The bulk of patient safety incidents occur in the Amber category and therefore we need to optimise conveying resource for this category of patient, many of whom are very unwell and need hospital care.

How many EAs will be available to serve Monmouth?

Monmouth station will have one 24/7 (or 168 hours) EA. Monmouth forms part of the Aneurin Bevan North locality, which also includes Aberbeeg (Abertillery), Abergavenny and Tredegar. These stations will see 245 hours, 168 hours and 168 hours EAs respectively.

A 24/7 ambulance resource equates to 168 hours per week. For the Aneurin Bevan health board the planned level of EAs will change from 2,577 (current) to 3,136 hours per week. The RRV (now CHARU) will change from 2,091 to 826 and Unscheduled Care Service ambulance resource from 512 to 519.

It is important to note that the Trust has historically had insufficient funding to recruit the number of staff required to fill the rosters, so the 2,577 hours referenced above in the current rosters needs to be treated with a degree of caution. For Aneurin Bevan, the EMS Demand & Capacity Review identified a gap of 53.58 FTEs or 23%. The Trust has now been funded to close this gap. As a result of the additional modelling undertaken and referenced above, the Trust requires a further 18.24 FTEs to fully deliver the CHARU resource in Aneurin Bevan which will boost the FTE uplift to 30%. The Trust has recently been provided with around two thirds of the resource required, with recruitment having commenced in the last couple of weeks.

The Monmouth RRV itself was largely staffed via colleagues choosing to cover it via overtime, rather than with that particular roster line being permanently filled, and in 21/22, only 53% of the RRV hours were produced.

Monmouth will see an increase of 5.4 WTE:-

- -2.2 Paramedics
- +6.9 Emergency Medical Technicians (EMTs)
- +0.6 Ambulance Care Assistants

We appreciate this is a dynamic service once the vehicles are on the road, but to start with which bases will they be at for serving Monmouthshire?

There are three stations in Monmouthshire: Abergavenny, Chepstow and Monmouth. The following table shows the planned new rosters for each station.

	EA	CHARU	UCS
Abergavenny	168	0	74
Chepstow	168	0	0
Monmouth	168	0	0

Note: where 168 hours = 1 x 24/7 ambulance resource.

We appreciate the initial extra numbers of staff are now in place?

The staff required for the Monmouth station in the re-rostered position are now in place i.e. for the 24/7 EA. We are currently recruiting additional technicians across Aneurin Bevan.

Can you please confirm how many emergency care staff vacancies there are currently in Gwent?

Aneurin Bevan: There is a requirement for 290.58 FTEs to fill the new rosters (this excludes CHARUs), and current actual in post is 267.52 FTEs.

Is the plan to put the additional EAs in place before removing the RRVs?

Yes, the plan is to turn on the new roster keys for Aneurin Bevan at the same time. The exact date is not yet scheduled, but there will be a phased go live across Wales through September, October and November this year.

On two separate occasions (as shown in the presentation), the WAST Annual Performance Report 2020/21 stated that the decision to prioritise EAs over RRVs was one of the key reasons for a

negative impact on response times. Removing the RRVs surely means further negative impact on both RED and AMBER performance times. Do you agree? If not, could you please explain why not? Can you confirm you are still planning to replace all 23 of the RRVs as part of your 2022/2023 Vehicle Replacements Plan (see below)? In which areas will the replacement vehicles be based? Why, if RRVs are not seen as crucial to the planned changes, is the Trust continuing to invest in them?

During the pandemic period the Trust made a tactical decision on a number of occasions to prioritise EAs over RRVs i.e. conveying resource, linked to reduced workforce availability caused by CoVID-19.

The decision to prioritise EAs over RRVs during the pandemic was a clinical/patient safety decision.

The roster keys being used in the current roster review will see a shift in emphasis with a plan to produce more EAs, linked to patient safety, because the bulk of patient safety incidents occur in the “Amber tail” (long waits in the Amber tail distribution curve) and require a conveying resource. The RRVs are being removed pan-Wales, but are being replaced by the CHARUs. CHARUs provide a higher level of clinical skill and clinical leadership for high acuity patient incidents and will deliver improved clinical outcomes for these patients, as well as being a responding resource. Whilst there will be fewer CHARUs than RRVs, the modelling undertaken indicates that there will be sufficient vehicles (EAs and CHARUs) to deliver the Red 8 minute 65% target for every Health Board in Wales. EAs make a contribution to Red performance, but also deliver improved response times for Amber patients.

Whilst much of the discussion on the RRV / CHARU has centred on the impact that this will have on performance, it is important to note that one of the key factors affecting response times is the level of handover lost hours. The current levels are extreme and we have had information to suggest that Wales is an international outlier. In the 2019 EMS Demand & Capacity Review, the Trust used December 2018 handover levels (considered high at the time) – 6,038 pan Wales – in April 2022 the Trust lost 23,832 hours. These levels mean the Trust is losing approximately 30% of its conveying capacity. Conscious of these extreme losses, the Trust has undertaken some recent additional modelling to test out whether, in this new environment, we should proceed with the new rosters, and this continues to confirm that proceeding with the new rosters will produce improved response times compared with the current rosters.

The Trust made the decision to continue to replace its RRV fleet because it was anticipating the new CHARU resource type being built into the roster review project. CHARUs will use the same rapid ambulance car type as RRVs.

Other Points in Slides

The slides refer to rurality. As part of the roster review, the Trust undertook a rural impact assessment using Welsh Government’s definition of rurality which included Monmouthshire. The impact assessment noted the increase in FTEs, but also the proposed reduction in planned roster lines, in particular, the RRVs. The Trust decided to proceed with the roster keys as is, on the basis of the modelling set out above, in particular, the low level of demand and potentially very low levels of utilisation.

Economics: a single crewed RRV will cost less than a double crewed EA; however, RRVs (and the CHARUs that replace them) provide a rapid response to high acuity patients. Most Red calls require back up from a conveying resource. The roster keys are based on modelling on what is required from a patient safety perspective as the starting point rather than any financial constraint

July 2022.