



# Chief Ambulance Services Commissioners Report

## Emergency Medical and Retrieval Service - Service Review

### Supporting Document 1 History of WAAC and EMRTS



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Pwyllgor Gwasanaethau  
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Emergency Ambulance  
Services Committee

# Wales Air Ambulance Charity

## History

The Wales Air Ambulance Charity was incorporated on 19 June 2000 and launched on St. David's Day, 2001. The objective of the Charity at that stage was to provide a paramedic-led air response with the aim of rapidly transferring patients to hospital by air. Once in hospital, patients would then receive the advanced critical care they required.

Existing airports were identified as base locations due to their ready-made infrastructure, factors taken into account included hangar space, fuel supply, air traffic control and the required Civil Aviation Authority (CAA) and local authority approvals.

The service was first operated from Swansea Airport on the establishment of the Charity with the first aircraft (made by Bölkow) initially working as an 8 hours per day, 5 days per week service then expanding to a 7 day service in July 2002. A base in Swansea was the first to be implemented as it could reach the large populations of South West Wales, South East Wales and Mid Wales.

A paramedic was based on the North Wales police helicopter based at Rhuddlan from April 2001 as an interim measure until the second aircraft was established at Caernarfon (Dinas Dinlle) Airport in July 2003. This was initially a three-month trial to cover the busy summer period, working as an 8 hours per day, 5 days per week service. During this period a paramedic continued to be based on the North Wales helicopter for 2 days per week. The service was expanded to a 7-day service in November 2003.

The service at Welshpool Airport was established in June 2006, with the offer from the aircraft provider of a helicopter for a short period. This third aircraft initially worked as a 5-day service to cover the busy holiday period and then was made a permanent service in January 2007.

The daily operational hours were increased to ten hours per day in June 2007. In 2009, the Charity upgraded its fleet to the more advanced EC135 helicopters.

All three bases (Swansea, Caernarfon and Welshpool) were operating 12 hours per day, 7 days per week by 2011.

At this time:

- the Charity provided the helicopters, bases, pilots, fuel and engineers
- paramedics from the Welsh Ambulance Services NHS Trust (WAST) worked on board the aircraft, using WAST equipment and consumables, and within WAST governance arrangements.

From 2001-2010, taskings for the air ambulance crews were allocated by non-clinical staff working in the WAST control centres at Carmarthen and Caernarfon. From 2011-2015, this was consolidated at the Caernarfon control centre. The need to improve this system was identified as at this time there was no software-based system or interrogation opportunities. It is likely that this resulted in missed and delayed taskings with a consequent impact for patients, it is also likely that there was inappropriate activation and a high percentage of aborted missions.

## Developments

The Wales Air Ambulance Charity has continually evolved since its inception particularly in terms of the increasing specialist care provided, the number of bases and the operational hours. These changes were consistent with the Charity's vision of Doctors working on their air ambulances and providing 24 hour operational coverage across Wales. There was also an ambition to reduce the rate of aborted missions by improving the tasking of the air ambulances.

Throughout the UK, many air ambulance charities have moved away from the traditional model of rapidly transferring patients to hospital to an advanced decision-making and critical care model. This means that the aircraft is used to quickly deploy expert staff with access to specialist equipment to the patient in order to provide critical care at the scene of an incident and then transfer to the specialist centre.

In 2015, there was a significant development in NHS Wales with the establishment of the Emergency Medical Retrieval and Transfer Service. The new service created a partnership between the Wales Air Ambulance Charity, Welsh Government and NHS Wales, ensuring a highly effective pan-Wales emergency clinical service. The new service consolidated the move from the traditional model and provided an air and road response that would ensure advanced decision-making and critical care for life and limb threatening emergencies at scene and then transfer for time critical specialist care.

This development confirmed the Charity's role in still providing the helicopters, bases, pilots, fuel and engineers. In addition, rapid response vehicles were now introduced as a key part of this new service ensuring an additional response option.

This model is illustrated in the table below:

	<b>Air Ambulance Model (2015 Prior to EMRTS)</b>	<b>Current EMRTS Model</b>
Organisational responsibility	Managed and led by WAST	Led by Clinicians, hosted by Swansea Bay UHB
Staffed by	WAST Paramedics	EMRTS Consultants and Critical Care Practitioners
Service model	Paramedic scope of practice - getting patients across Wales to hospital quickly by air to receive critical care	Advanced decision-making, critical care for life and limb threatening emergencies at scene and transfer for time critical specialist care
Medical equipment	Medical equipment in line with the scope of practice	More advanced / specialist medical equipment in line with the scope of practice
Level of training	Provision of care in line with paramedic scope of practice	Provision of advanced critical care and advanced decision-making
Clinical Governance	Clinical governance arrangements rested with Welsh Ambulance Services NHS Trust for paramedic staff provided by them	The EMRTS National Director is accountable to the Swansea Bay University Health Board's Chief Executive for clinical governance, reporting to the health board's Quality and Safety Committee and Risk Management Group
Patient transfer	Patient taken to nearest hospital, patient then transferred to specialist centre	Patient treated at scene and taken directly to specialist centre
Response mode	Service by air only	Service by air and road
Tasking	Tasked via WAST Control Centre, staffed by non-clinical staff	Tasked via EMRTS Air Support Desk (now known as EMRTS Critical Care Hub), staffed by EMRTS Critical Care Practitioners and Allocators

The important development of establishing EMRTS included the addition of a road response option.

In 2016, the base at Swansea Airport moved to the purpose-built facility at Dafen, Llanelli. In addition to the infrastructure previously required for air response only, this location ensured better access to the main road networks.

In 2017, the Charity introduced a fourth aircraft to the fleet and upgraded three of the helicopters to the H145 model. H145 aircraft have larger cabins and more powerful engines, meaning that there is extra room for treating patients and they can fly longer distances without refueling. They are also equipped for night flying and would move the service towards its vision of operating an overnight service. In 2020, this vision became a reality with the introduction of an overnight service based at Cardiff Heliport and covering the whole of Wales.

2018 saw the Charity take over the long-term lease for Cardiff Heliport. As well as becoming one of the bases for the air ambulance operation, the Heliport is also a pioneering commercial venture run through the Charity's trading arm. The facility offers hangarage and fuel to visiting aircraft and hosts permanent on-site tenants. Profits from the Heliport go directly to the Wales Air Ambulance Charity in aid of its lifesaving work.

In 2020, the vision of operating 24/7 became a reality with the introduction of an overnight service based at Cardiff Heliport and covering the whole of Wales. In 2020, the service also introduced its Aftercare Service, providing a wider patient and family liaison service. Many patients treated by the Wales Air Ambulance have suffered serious trauma and it can be difficult for both a patient and their family. Two dedicated Patient Liaison Nurses support patients and relatives on their journey to recovery, providing consistency and support throughout, including after discharge home. This includes bereavement support for the loved ones of patients who sadly passed away. The Aftercare Service is jointly funded by the Charity and EMRTS.

Since the Charity's launch in 2001, the service has attended nearly 50,000 missions.

In 2021, as part of the Charity's Strategy Review, it updated its mission and vision statements to reflect the service's evolution, its medical advances, and the introduction of an overnight service.

The Charity's previous mission "To aid the relief of sickness and injury, and the protection of human life, by the provision of a HEMS/air ambulance service across Wales" was updated to "To deliver lifesaving, advanced medical care to people across Wales, whenever and wherever they need it".

The Charity's previous vision statement "To provide a 24-hour air ambulance operation and continually strive for an outstanding air ambulance service available to everyone in Wales" was updated to "To improve the lives of patients and their families by being a world leader in advanced, time-critical care".

### **Aviation Contract**

Following an extensive 18-month procurement process, a new seven-year aviation contract with Gama Aviation Plc will begin on 1 January 2024.

The contract covers the operation and maintenance of a primary fleet of four Airbus H145 helicopters upgrading the existing fleet (one H135 in use), operating from the Charity's current sites in Llanelli (Dafen), Cardiff, Caernarfon (Dinas Dinlle) and Welshpool. The contract includes a backup H145 helicopter to ensure service continuity during periods of maintenance for the primary fleet.

The contract includes the required flexibility to adapt to the outcome of the EMRTS Service Review if required (including revised base locations, revised operational hours and enhanced after-dark flying).

As part of the contract, three of the aircraft will be directly leased to the Charity. Gama will operate and maintain four aircraft, plus a backup helicopter, on behalf of the Charity but the Charity will be the direct leaseholder for three of them.

As a result of the global increase in the cost of goods and services, the cost to maintain the air operation, alongside the rapid response vehicle capability, has risen from £8 million to £11.2 million per year – a figure that will need to be raised, in its entirety, by the Charity.

The Charity has also confirmed that it will extend its contracts with Caernarfon Airport and Welshpool Airport, where two of its operations are currently based, until at least 2026.

The Charity operates in line with the rules and requirements of the Charity Commission for England and Wales. The Charity and Trustees want to make best use of donations received from the public for the helicopters, bases, rapid response vehicles, pilots, fuel and engineers.

# Emergency Medical Retrieval and Transfer Service

## History

### The case for change

The case for establishing the Emergency Medical Retrieval and Transfer Service (EMRTS) Cymru was agreed by Welsh Government, Health Boards and the Wales Air Ambulance Charity in 2014 following a period of engagement with stakeholder organisations.

This process included:

- **NHS Wales Enhanced Care Service: Initial Proposal (2012)** - This proposal was developed by expert clinicians from NHS Wales and described improved patient safety and patient outcomes that would result from an NHS Wales Enhanced Care Service that provides life-saving critical care interventions and safe transfer of the right patient to the right place at the right time.
- **Strategic Outline Programme (SOP) for the Emergency Medical Retrieval and Transfer Service for Wales (2014)** - The SOP described the key drivers for change including developments in pre-hospital critical care including learning from the military environment, NHS service change plans for reconfiguration and the development of trauma networks. The case for change was measured against key investment objectives (Health Gain, Affordability, Clinical and Skills Sustainability, Equity and Value for Money). The SOP included a Preferred Option 2A, this included two bases at Swansea and Welshpool Airports, air and road services, operational coverage 0800-2000, 1 team at each base for each shift, no overnight coverage and after 12 months of introduction of Phases 1 and 2, a formal Gateway review will be conducted to strongly consider the need for further phased expansion to include the Caernarfon base and 24/7 cover in Swansea.

The EMRTS SOP was approved by Welsh Government on 22 August 2014. This approval enabled the programme to move on to the production of a Business Justification Case.

- **Business Justification Cases** (BJCs) were developed for both Phase 1 (Swansea Airport) and Phase 2 (Welshpool Airport). The BJCs were submitted to Welsh Government in December 2014.
- **A Welsh Government Gateway Review** was undertaken in January 2015. In order to ensure robust assurances ahead of implementation, the team emphasised the need for stronger and appropriately resourced programme management for managing activities to launch and beyond.
- **A Welsh Government Gateway Review 'Health Check'** was undertaken in April 2015 to give assurance on the readiness of the service for launch on 27 April 2015 and to look at the issues that appeared at the time of the Gateway Review (January 2015) to be threatening the launch date, together with any issues and risks that have appeared since. Significant progress was noted across all work streams. At the Programme Board meeting held on 22 April 2015, it was agreed that the required assurances had been provided and that the Emergency Medical Retrieval and Transfer Service would commence on 27 April 2015.

### Establishment of EMRTS

In line with the Preferred Option 2A, a phased approach was adopted to establish the service, this included:

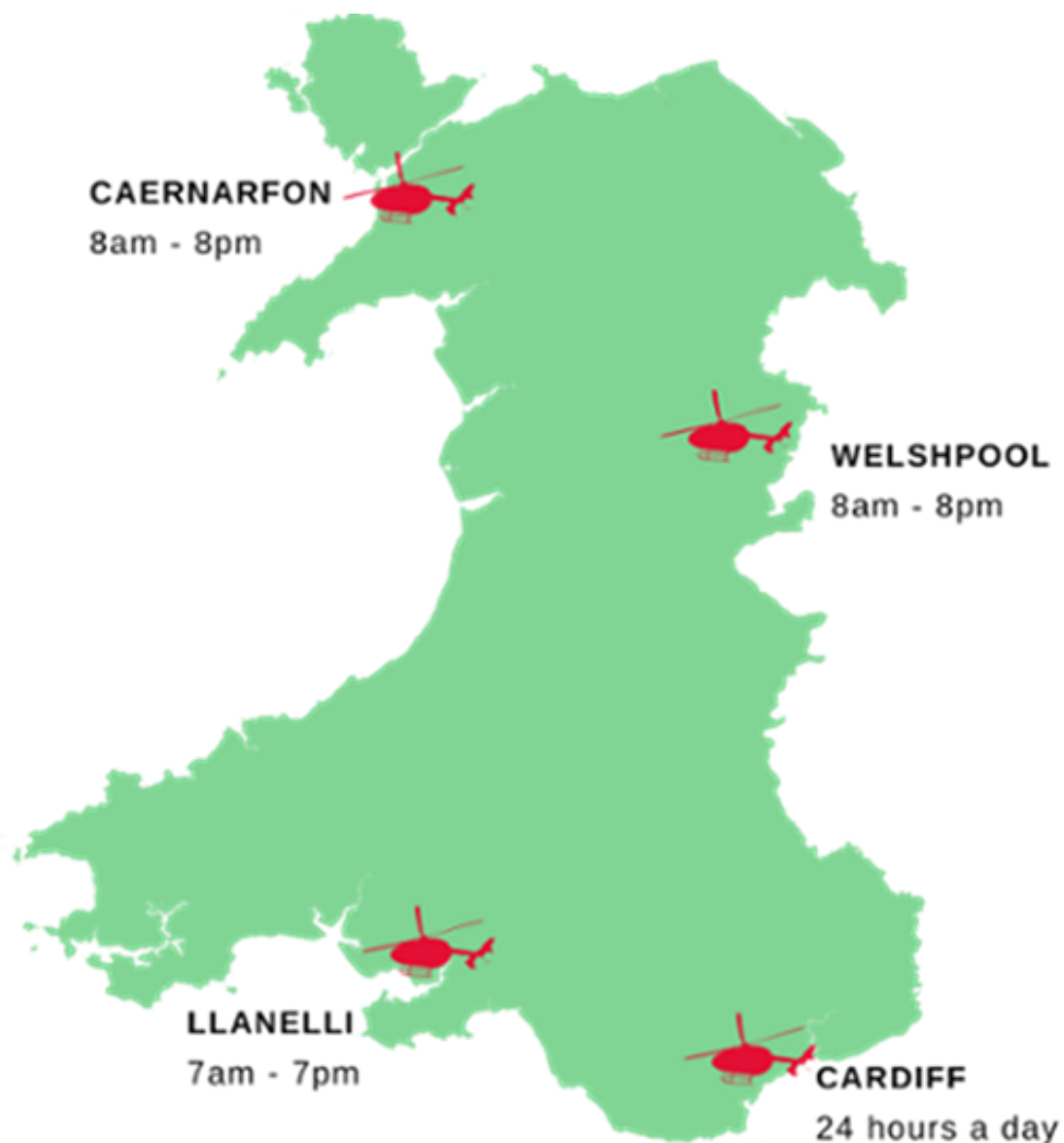
- **EMRTS established at Swansea and Welshpool Airports (2015)** - The service commenced in April 2015 with the implementation of the Preferred Option, 12 hour (daytime) air and road responses from Swansea (now Dafen, Llanelli) and Welshpool bases both with a Consultant and a Critical Care Practitioner. Other key parts of the service were also established at this time including the EMRTS Air Support Desk (ASD), now called the Critical Care Hub (CCH) based in the Welsh Ambulance Services NHS Trust's clinical contact centre in Cwmbran and also providing the EMRTS Top Cover Consultant role (providing remote advice for EMRTS crews, referring health care facilities and ambulance crews).



- **Fourth helicopter introduced at Cardiff Heliport (2016)** - This additional resource was provided and funded by the Charity to carry out a feasibility study to test the need for long distance, non-time critical neonatal, paediatric and adult transfers between hospitals. This work was separate from the core EMRTS service. With the use of EMRTS transfer practitioners, this resource supported the NHS Wales system by improving patient flow and reducing the impact on hospital staffing.
- **Welsh Government Gateway Review (2017)** - Another condition of the Preferred Option was for a Welsh Government Gateway Review to be undertaken following implementation to consider expansion to a 24-hour service. The Gateway Review took place in May 2017. The team found that, whilst most of the programme has been delivered some aspects were yet to be fully implemented, it was felt that planned developments at Caernarfon would close a perceived gap and that achieving a fully 24/7 all Wales Consultant service was still some way off.
- **EMRTS established at Caernarfon Airport (2017)** - In line with the Preferred Option, a proposal was then developed against the agreed key investment objectives for a third EMRTS 12 hour (daytime) air and road response from the existing Caernarfon base. The proposal recommended a hybrid approach involving EMRTS crews from both Caernarfon and Welshpool bases providing a Consultant and Critical Care Practitioner at one base and two Critical Care Practitioners at the other. This approach reflected the activity in Mid and North Wales and would avoid overstaffing by Consultants, would allow regular Consultant exposure to the most serious cases and would contribute to the development of Critical Care Practitioners with the opportunity for autonomous practice. This was taken through the EMRTS Delivery Assurance Group (DAG) and EASC Committee. The new EMRTS base at Caernarfon was established in the summer of 2017.
- **EMRTS overnight response established at Cardiff Heliport (2020)** - The EMRTS Service Expansion Review (2018) explored the options for expansion. The Preferred Option included a 24-hour expansion of the service from Cardiff Heliport, this met the agreed key investment objectives and was taken through the EMRTS DAG and EASC Committee. An overnight air and road response with a Consultant and a Critical Care Practitioner was implemented at Cardiff Heliport from December 2020.

- **EMRTS daytime response established at Cardiff Heliport (2022)** - A proposal was developed to reutilise existing staff and transport based at Cardiff Heliport (previously focusing on inter-hospital transfers). The proposal included two Critical Care Practitioners providing a 12 hour (daytime) air and road response, enhancing the EMRTS primary response and set out the anticipated benefits against the agreed key investment objectives. The proposal was received by the EMRTS Delivery Assurance Group and approved at the EASC Committee. The enhanced CCP response from Cardiff Heliport commenced in April 2022. From a South Wales model perspective, this ensured a Consultant and a Critical Care Practitioner at Llanelli and two Critical Care Practitioners at Cardiff Heliport, ensuring a similar model to the hybrid approach that is in place across Caernarfon and Welshpool bases.

The current EMRTS service configuration is illustrated in the following image:



- This section outlines the key strategic developments undertaken since the establishment of the EMRTS.
- The service is also able to make service-level decisions regarding the most effective use of resources, these opportunities are regularly discussed with the Chief Ambulance Services Commissioner. The decisions are based on many factors including base infrastructure and capacity, service activity and the availability of staff. There have been many short-term initiatives since the establishment of the service, utilising additional resources that have been made available to the service including non-recurrent funding (including WG winter pressures funding, surplus staffing resources etc), ensuring an important training and education platform and an opportunity for additional service delivery on a cost neutral basis.

## ACCTS

In addition to its core service relating to the provision of pre-hospital advanced critical care, the EMRTS also hosts the Adult Critical Care Transfer Service (ACCTS), which is a pan-Wales road-based service to transfer critically ill patients between hospitals. The ACCTS is a separately funded service, commissioned by EASC and is delivered solely by NHS Wales with no involvement by the Charity. The service has access to its own specially designed ambulances and typically operates as a crew consisting of a doctor, Retrieval Transfer Practitioner and a driver, all employed by the ACCTS.

The South Team commenced in August 2021, the crew provides a 12-hour daytime service and begin their shift at Cardiff Heliport. The North Team started in in October 2021, the crew provides a 12-hour daytime service with a 12-hour on-call night-time service and begin their shift at Ysbyty Gwynedd, Bangor.

The service is part of a separate commissioning arrangement and is outside the scope of the EMRTS Service Review.

# Commissioning

The EMRTS is commissioned by the Emergency Ambulance Services Committee (EASC) and the service is hosted by Swansea Bay University Health Board (SBUHB).

The service was originally commissioned by the Welsh Health Specialised Services Committee (WHSSC). This was an interim commissioning responsibility while the EASC concentrated on immediate emergency services challenges. As intended, the responsibility for commissioning moved to EASC once the initial commissioning had been completed.

The WHSSC Joint Committee approved the establishment of an EMRTS Delivery Assurance Group (DAG) in March 2015 and was chaired by Dr Grant Robinson in its' first year. The DAG has been chaired by Stephen HARRY, Chief Ambulance Services Commissioner since commissioning responsibilities moved to EASC fully in April 2016.

The EASC Joint Committee consists of an independent Chair, the 7 LHB Chief Executives and the Chief Ambulance Commissioner. The Committee has been established to enable the seven LHBs in Wales to make collective decisions to plan and secure Emergency Ambulance Services, Emergency Medical Retrieval & Transfer Service (EMRTS) and Non-Emergency Patient Transport Service (NEPTS). The Committee provides a forum for making decisions with national or regional implications.

The EMRTS DAG (as a sub group of EASC) is accountable to EASC and advises the Joint Committee on issues regarding the development and performance of EMRTS.

The EASC Committee receives a commissioning allocation from Welsh Government for its commissioned services. A collaborative commissioning approach has been adopted for the commissioning of EMRTS Cymru, using a quality and delivery commissioning framework (the CAREMORE approach).

This approach has ensured that expected care standards are defined as well as setting out activity, performance and resource management information. A key element of the approach is a robust process of review and evaluation. The framework focuses on outcomes, value, quality and safety of service delivery and aims to ensure reasonable expectations for the ongoing improvement of these services.

Commissioning Intentions are set for EMRTS provide a clear indication of the strategic priorities of the Committee for the next financial year. Intentions focus on outcomes, value, quality and safety of service delivery and aim to ensure reasonable expectations for the ongoing improvement of the service. These do not set out all activity that will be undertaken during the year and other projects to deliver short term operational improvements will also be undertaken.

The Commissioning Intentions for EMRTS Cymru for 2023-24 are:

1. Service expansion
2. Adult Critical Care Transfer Service (ACCTS)
3. Service evaluation
4. System transformation

In addition to these, all services commissioned by EASC are required to continually review the effectiveness of their service delivery and to bring forward opportunities to improve the services they provide or to deliver pre-hospital advanced critical care to as many patients as possible. These proposals are received and endorsed by the EMRTS DAG for approval by the EASC Committee. As a condition of approval, update reports are required against each service development to ensure that the anticipated benefits are realised.

# Opportunities for Improvement

As indicated, all services commissioned by EASC are required to continually review the effectiveness of their service delivery and to bring forward opportunities to improve the services they provide or to deliver pre-hospital advanced critical care to as many patients as possible.

## EMRTS Service Development Proposal

The EMRTS Service Development Proposal:

- responded to the Commissioning Intentions set by EASC for EMRTS, in terms of service expansion, service evaluation and system transformation
- described a detailed analysis of data, demand and base utilisation to understand whether the service is delivering the most efficient and effective service for the people of Wales
- considered how the service has significantly changed since the Charity was original established in terms of the medical provision and response mode
- set out to understand whether the service is meeting as much of its demand as possible, with the resources that it has

In addition, the procurement process for the Charity's aviation contract offered the opportunity to review the service configuration.

The EMRTS Service Development Proposal included a preferred option that included changes to base locations, changes to shift start and finish times and the ability to undertake Helicopter Emergency Medical Services (HEMS) dark hours operations from all bases.

## EMRTS Service Review

The EMRTS and Wales Air Ambulance Charity provided an overview of the EMRTS Cymru service to members at the meeting of the EASC Committee in September 2022, this included a presentation of the key headlines of the proposal to improve the service.

In line with other service developments and improvements being taken through the EMRTS DAG and EASC Committee, the full Service Development Proposal was received by members at the meeting of the EASC Committee on 8 November 2022, following discussion at the EMRTS Delivery Assurance Group on 1 November. Members noted that further scrutiny and analysis had been requested at the DAG meeting.

It was agreed that this impartial and objective formal engagement process would be led by the Chief Ambulance Services Commissioner and his team. The CASC works in line with EASC Standing Orders (issued by Welsh Government) and undertakes the duties identified. The EAS Committee reviewed the scheme of delegation and agreed that the CASC is responsible for public consultation on behalf of the Committee and will report back to the Joint Committee.

The EMRTS Service Review would be independent of the assumptions, comparisons and modelling included within the proposal and would explore and maximise the additional activity that could be achieved from existing bases and explore options to reconfigure the service.

As part of this approach of undertaking analysis afresh, formal public engagement would be undertaken, allowing stakeholders to inform the options to be reviewed and to agree how the benefits and risks of each option will be measured as part of an open, transparent and robust process.

The CASC worked with the Community Health Councils (now Llais Cymru) who recommended that a meaningful and comprehensive public engagement process should be undertaken for at least 8 weeks. The CASC also worked with Health Board colleagues particularly communication, engagement and service change leads to agree appropriate engagement materials and a robust communication and engagement plan.



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