

Emergency Medical Retrieval & Transfer Service Cymru & Adult Critical Care Transfer Service Cymru



Annual Report 23/24

1 April 2023 – 31 March 2024



W: emrts.nhs.wales
E: EMRTS@Wales.nhs.uk
T: 0300 3000 57

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Director's Foreword

It has been another eventful year for our service. Working with our partners Wales Air Ambulance Charity and the Welsh Ambulance Services University NHS Trust we have attended nearly 4000 incidents in every part of Wales. Some incidents are the major trauma incidents we expect to see when responding in Air Ambulances – the patient story below by Craig, one of our patients who suffered severe injuries after a motorcycle incident, shows how the full range of clinical interventions sometimes have to be administered before arrival in hospital. Making a good recovery after life-threatening incidents like this is a fantastic outcome for patients and those of us lucky



enough to treat them. In addition to trauma the range of incidents we treat is incredibly diverse. Cardiac arrests, agricultural accidents, obstetric emergencies, attempted suicides, paediatric emergencies and major incidents are just some that we attend regularly and train for. They have one thing in common – they are often frightening and have life-changing implications. We are there to support patients on the day and our patient liaison nurses are there to try and support and explain events to patients and/or their relatives in the following weeks and months.

We are always looking for ways to improve our services and this has taken up a lot of our time this year. We have successfully changed to a new aviation provider with an improved helicopter fleet. Our Charity has been upgrading our Volvo XC90 rapid response vehicles and this programme will be completed in the near future. The service review and public engagement process took us all over Wales in the last twelve months. This will allow us to get more patients in years to come and introduce night working in Mid and North Wales. Our interhospital transfer services is in its third year of operation and has moved more patients between hospitals than ever before. We have also partnered with various research groups to improve care across the range of clinical conditions we attend and to find better ways of delivering care.

These changes provide us with the tools to deliver excellent care, but it is of course our staff that make our service what it is. Our critical care practitioners and dispatch staff search through hundreds of calls every day to find the calls where our colleagues can make a difference. They are recruited in a highly competitive selection process and then move through a five-year programme of challenging learning and skill acquisition. The process is one of the best there is and we are very proud of it. Similarly, our doctors are working in nearly all hospitals in Wales, and some from beyond. Between them they provide a huge experience in emergency clinical care and also hold a broad range of leadership roles in their specialist areas. Recruitment is very competitive, and we are so lucky to have applications from highly motivated, talented and highly qualified individuals who want to work with us.

We recognise that our staff need looking after too. We have been involved in a National Project to better support our staff and were one of the first services to implement recommendations of the

report. Looking after emergency staff is one of the key projects of The Royal Foundation and was one of the main discussion points when our Royal Patron the Prince of Wales visited us recently.

This annual report details the activity of our services. We are grateful to all those in the NHS who support our service and to the generous people who contribute to the Charity. Next year we will continue to work hard to improve your service and be there when you need us.

**Professor David Lockett,
National Director EMRTS Cymru**

Message from ACCTS Cymru Clinical Lead



As I look back on our journey over the past year, I am filled with immense pride in what our team has achieved. What began as a vision three years ago has now become an essential service—a lifeline for the most vulnerable patients across Wales. This year, we continued to receive more referrals and undertake more transfers than ever before,

both in complexity and number. Each of these cases tells a story—one that reflects not only increased access to specialist care in partnership with our EMRTS colleagues but also the speed and efficiency with which we bring patients back closer to home.

One of the most significant developments in our service has been our growing belief that no patient is “too sick to transfer.” This year, we have continued to challenge that notion and transform it into something even more powerful: “Too sick to stay.” In the past, critically ill patients were often considered too unstable for transport. But we’ve proven that with the right expertise, equipment, and planning, these patients can be safely moved to the specialised care they desperately need, something that only a few years ago might have been deemed impossible.

As the landscape of Welsh critical care and specialist services continues to evolve, we too must evolve. We are working with stakeholders from all health boards across Wales to understand how we can adapt the transfer infrastructure to meet this growing demand. While this work is ongoing, we remain committed to understanding how we can best serve the people of Wales and what changes we need to make to continue delivering the highest quality care.

In line with this, we are proud to launch the Critical Care Transfer Audit, building upon the work done by the WCCN. This audit enables us to gain a deeper understanding of the care patients receive in transit, identify existing gaps, and begin formulating a unified solution aimed at delivering safe and effective critical care during transfer.

In addition to operational improvements, we have continued to place a strong emphasis on academic excellence. This year, we launched the UK’s first MSc in Advanced Retrieval Medicine—a groundbreaking programme designed to equip our clinicians with the skills and expertise to lead the field in patient transfer and critical care. This initiative isn’t just about pushing the boundaries of education; it’s about ensuring our team is constantly evolving to meet the demands of an ever-changing healthcare model.

We also remain committed to supporting regional training, with the goal of developing the transfer specialists of tomorrow. By investing in our local workforce, we are ensuring that Wales has the

highly skilled clinicians needed to deliver safe, effective critical care transfers long into the future. This commitment ensures that our service is sustainable and continues to grow.

Several of our team members have also completed the Diploma in Retrieval and Transfer Medicine (DipRTM), awarded by the Royal College of Surgeons of Edinburgh. These achievements reflect our belief that investing in professional development directly translates into better patient outcomes. By equipping our team with advanced skills and knowledge, we are ensuring that we can provide the highest quality care to every patient, no matter where they are in Wales.

We proudly support two of our ACCTS Clinical Fellows in their work as part of the Bevan Exemplar programmes, embracing our experience and culture of innovation to enhance other areas of healthcare in Wales.

Reflecting on our journey, it's remarkable to think that ACCTS Cymru was only a vision just a few years ago. Today, we are embedded as an essential part of critical care across Wales. Our journey hasn't been easy, but it has been driven by a deep belief in the strength of connecting critical care communities, from the point of injury to care closer to home. The tireless efforts of our team, the trust of our partners, and the support of clinicians across Wales have allowed us to make a lasting impact.

To our patients and their families—you inspire us every day. Your courage drives us to go further, to innovate, and to find new ways to bring care to the bedside, no matter the distance. We are deeply grateful to every member of our team, our partners, and all those who support us on this journey. You have helped make ACCTS Cymru what it is today.

I hope this Annual Report provides insight into the passion and commitment that fuels everything we do. Thank you for being part of our story. We look forward to writing the next chapter together.

Dr Mike Slattery, ACCTS Cymru Clinical Lead

Governance Structure

EMRTS Cymru has developed a robust system of organisational and clinical governance. The service is hosted by Swansea Bay University Health Board (SBUHB) and was commissioned by the Emergency Ambulance Services Committee. From April 2024 it has been superseded by the NHS Wales Joint Commissioning Committee (NWJCC)

The organisational governance structure consists of an EMRTS Delivery Assurance Group (DAG) which sat as a subcommittee. The DAG is responsible for the delivery, direction and performance of the Service.

The EMRTS Cymru National Director is accountable to the DAG for the delivery and performance of the service and to the SBUHB Chief Executive for organisational and clinical governance.

Internal governance is led by the EMRTS Clinical and Operational Board which is attended by senior EMRTS personnel and support services and manages clinical and operational issues relating to the service.

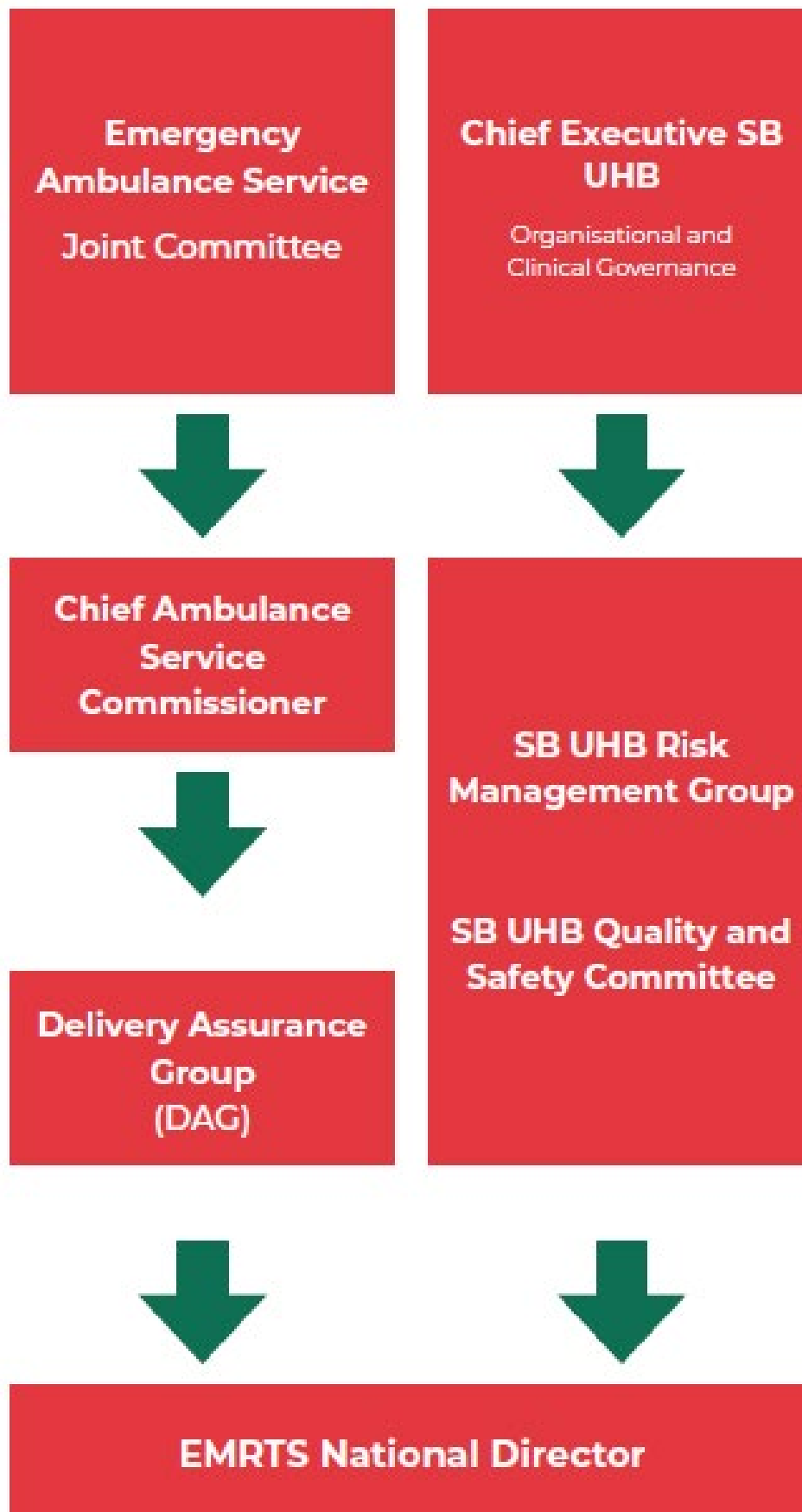
The Board meets on a bi-monthly basis and is supported by the work of several specialist sub-groups.

There are a number of supporting documents underpinning the organisational governance of the service as follows:

- National Collaborative Commissioning Quality and Delivery Framework – namely CAREMORE.
- Terms of Reference for the EMRTS DAG.
- Collaboration Agreement between SBUHB, the Wales Air Ambulance Charitable Trust (WAACT) and the Welsh Ambulance Services Trust (WAST).
- Memorandum of Understanding between SBUHB and other Welsh health boards and trusts.
- Service-level agreement between EMRTS and SBUHB for accessing support services.
- Terms of Reference for the EMRTS Clinical and Operational Board.

An External Clinical Advisory Group (ECAG) was established at the inception of the service in 2015. The ECAG provided benchmarking of clinical standard operating Procedures and independently reviewed significant adverse events, reporting their findings back to the Clinical and Operational Board.

A new External Clinical Advisory Panel (ECAP) has now been established in place of the ECAG. The new expert panel provides ad hoc advice on specialist issues when requested and input to Clinical Governance Days when relevant issues are being presented.





The Emergency Medical Retrieval & Transfer Service Overview

Our Mission

To provide advanced decision-making and Critical Care for life or limb-threatening emergencies that require transfer for time-critical treatment at an appropriate facility.

Our Vision

EMRTS Cymru has been developed to provide the following services to Wales:

EMRTS Cymru delivers improved equity of access to pre-hospital Critical Care for the people of Wales:

EMRTS Cymru delivers health gains through early interventions (provided outside normal paramedic practice by EMRTS Cymru) and by direct transfer to specialist care centres. This aims to improve the functional outcomes of patients and increase the number of patients considered by national models to be 'unexpected survivors.'

EMRTS Cymru delivers downstream benefits to smaller and more rural hospitals across Wales. More patients are taken directly to the most appropriate centre which results in significantly fewer

secondary transfers. These would previously have depleted hospitals of specialist personnel (such as anaesthetists) created an additional cost burden for NHS Wales, and added pressures for the Welsh Ambulance Service, as well as delayed time to definitive care in specialist centres.

EMRTS Cymru delivers clinical and skills sustainability in Wales. EMRTS supports consultant and Critical Care Practitioner recruitment into Wales by offering opportunities with the service as a part of the recruitment of related NHS Wales hospital positions. EMRTS Cymru also supports educational activities across NHS Wales.

Our Service

EMRTS offers a 24/7 medical operation across Wales. Services include:

- Pre-hospital Critical Care for all age groups (i.e. any intervention/decision that is carried outside standard paramedic practice).
- Undertaking time-critical, life or limb-threatening adult and paediatric transfers from peripheral centres (including Emergency Departments, Medical Assessment Units, Intensive Care Units, and Minor Injury Units) for patients requiring specialist intervention at the receiving hospital.

In addition, the service provides an enhancement of neonatal and maternal pre-hospital Critical Care, both for home deliveries and deliveries in free-standing midwifery-led units (MLUs), including transferring neonatal teams to distant time-critical cases by air.

The service provides a multitude of roles at major incident or mass-casualty events and a strategic medical advisor is available 24/7. This advisor is known as a top cover consultant.

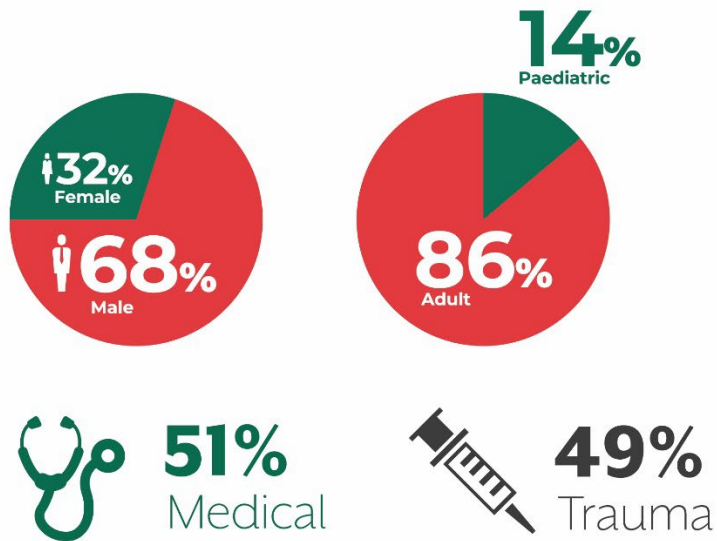
When the Wales Air Ambulance Charity helicopters are unable to fly due to poor weather conditions, EMRTS Cymru has access to a fleet of Rapid Response Vehicles (RRVs). They have been converted into state-of-the-art emergency response vehicles designed to enable the team to reach the scene of a medical emergency, by road, as fast as possible.

These vehicles are stationed at all of our operating bases in Wales. Medical equipment has been designed to be interchangeable between the charity's helicopters and the RRVs.

EMRTS Cymru is coordinated and tasked centrally via the Critical Care Hub (CCH) 24 hours a day. It is based within the Welsh Ambulance Service Clinical Contact Centre in Cwmbran.

Mission Data

Mission Data



341 Emergency Anaesthetics

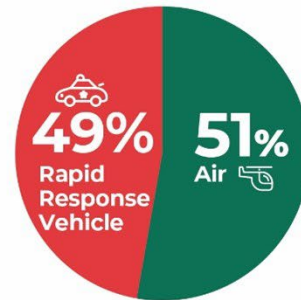
144 Sedations

130 Blood product transfusions

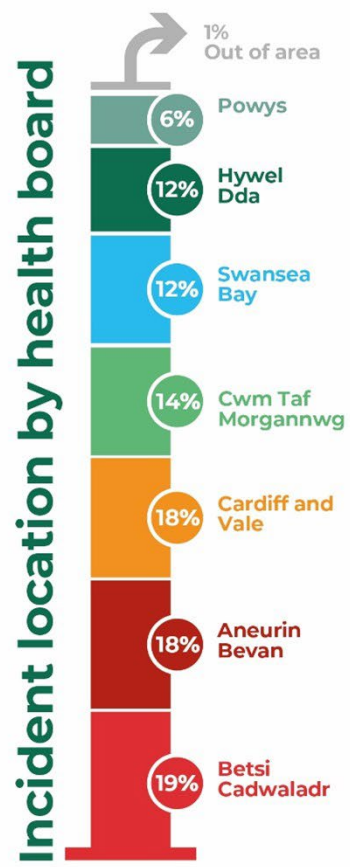
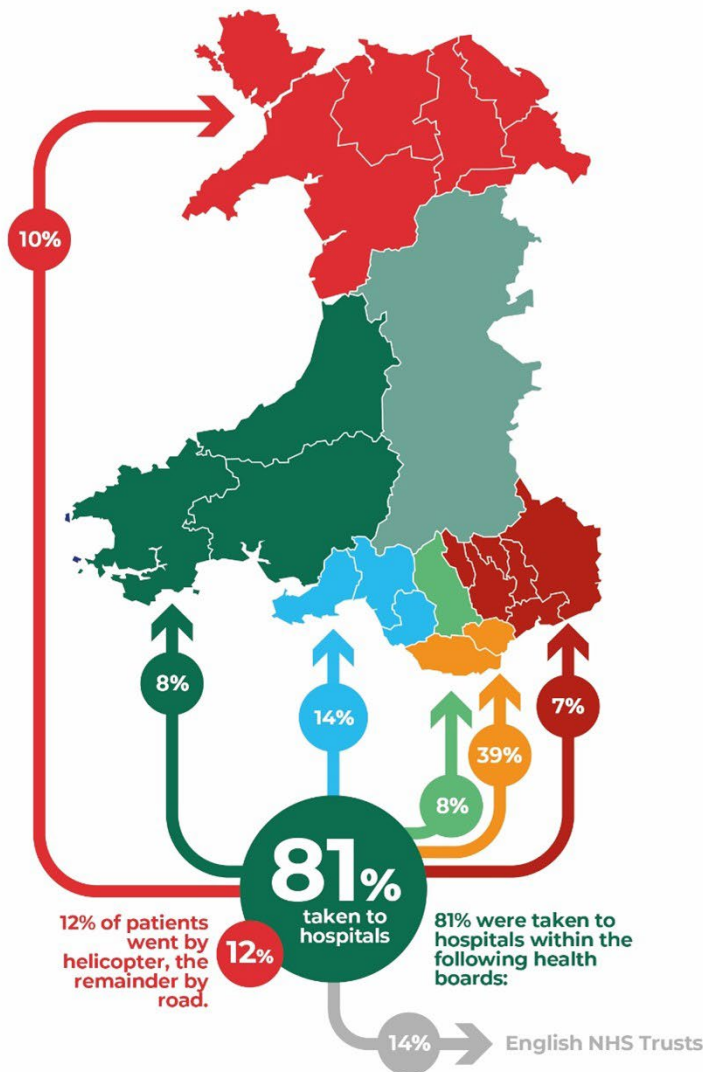
682 Intubations

Total number of incidents - 3934

96% Primary missions (999 calls)
4% Secondary missions (transfers)



Incident Locations



The Adult Critical Care Transfer Service overview



Gwasanaeth Trosglwyddo Gofal Critigol Oedolion Cymru
Adult Critical Care Transfer Service Cymru



Our Mission

To ensure seamless, uninterrupted care for critically ill and injured patients in Wales through provision of a professional, high-quality, specialist adult transfer service.

Our Vision

ACCTS Cymru's maxim is that Critical Care is a process and not a location. The service aims to ensure equity of access to Critical Care and specialist services for the people of Wales, irrespective of geographical distance or national borders. The service promotes cooperation across the Critical Care units of the health boards and can help to maintain optimal capacity throughout the Wales Critical Care Network. Additionally, the service delivers benefit by reducing demand on anaesthetic & Critical Care departments, Welsh Ambulance Services NHS Trust and EMRTS, by undertaking transfers that would otherwise impact these services.

Our Service

The Adult Critical Care Transfer Service launched in August 2021 as a result of the Critical Care Working Group task and finish report. The report recognised the requirement for safe and high-quality inter-hospital transfer to be an essential part of Critical Care delivery in Wales. Prior to the services launch, Critical Care transfers were undertaken on an ad-hoc basis by medical and allied

health care professionals from referring hospitals utilising front line ambulances. This ultimately resulted in increased pressures on the medical teams, both in hospital and prehospital, by depleting already stretched resources.

The service can provide varying levels of care from complex treatment and interventions to lower acuity Critical Care transfers between hospitals. It has three funded ambulances operated by two transfer duty crews covering the breadth of the Principality. ACCTS Cymru is able to provide this service by recruiting high calibre clinicians who have all undergone a robust selection process and have delivered critical and intensive care in previous roles. The predicted workload was initially estimated at 420 transfers each year. This number was exceeded within ten months of launching the service.

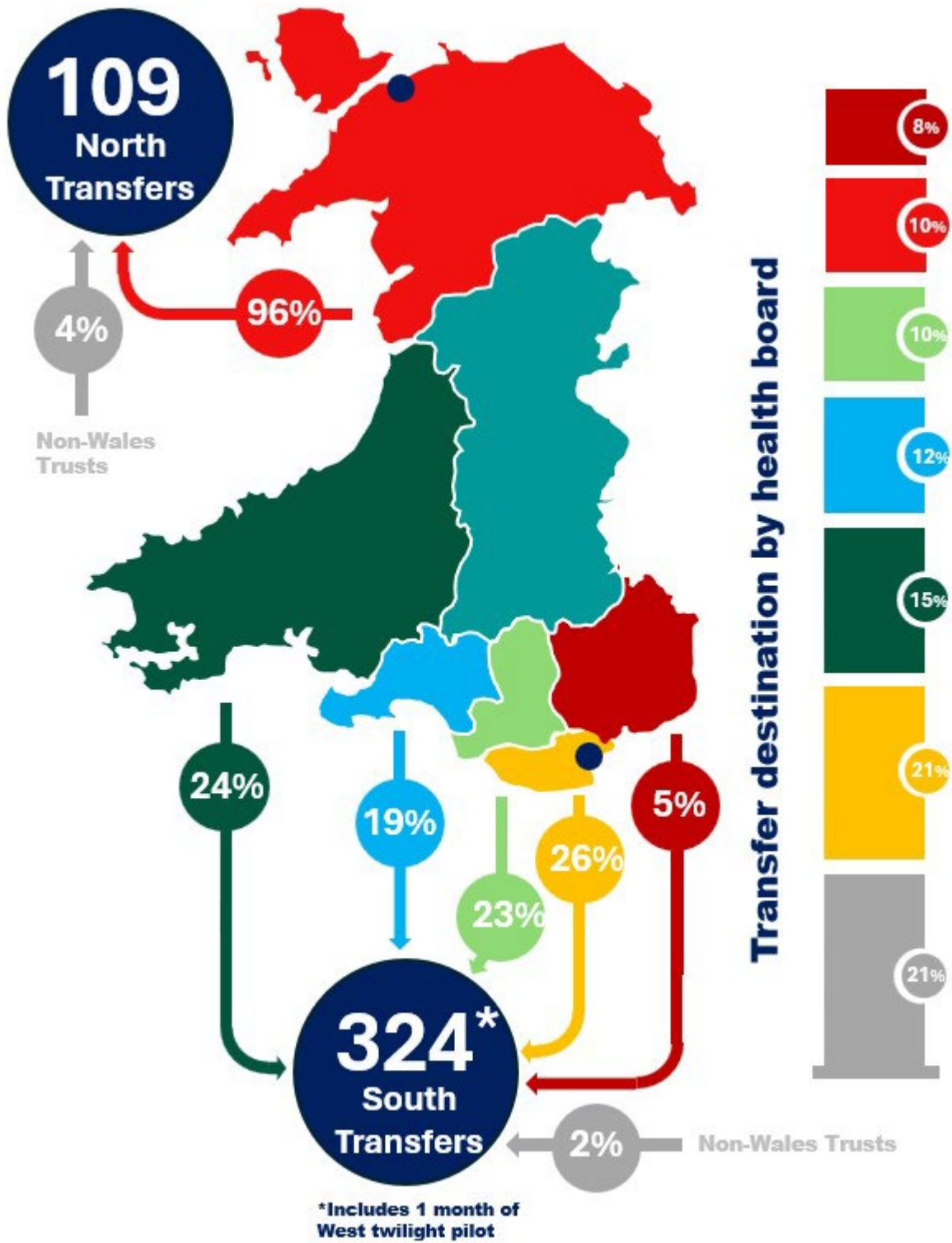
As a national service we have supported the movement of patients to specialist care as well as timely repatriation so that patients can receive the treatment they need near their loved ones. We work across all health boards in Wales as well as expediting access to quaternary care in NHS England for services not available within Wales.

For the period covered in this report, we completed a total of 433 transfers; the majority in the south of the country, 312, and 109 in the north, with a further 12 piloted in the west.

Of those, 221 were level 3 transfers, 118 were level 2, and the remainder 1 or 0.



Transfer Missions



Service Evaluation

We are pleased to present the findings from the first Service Evaluation of the Adult Critical Care Transfer Service (ACCTS) Cymru. This evaluation offers a comprehensive review of ACCTS Cymru's impact since its establishment in 2021, demonstrating its critical role in enhancing transfer services for critically ill adults across Wales.

Launched in response to the Chief Medical Officer's directive, ACCTS Cymru was created to provide equitable, timely, and high-quality care for patients needing inter-hospital transfers. The evaluation analyses the service's performance over its initial years, highlighting successes, challenges, and areas for improvement.

Using a mixed-method approach, we assessed clinical outcomes, stakeholder feedback, financial sustainability, and equity of care. The results reflect the dedication of our multidisciplinary team, whose efforts have been key to delivering high-quality, effective transfers, even amid post-pandemic challenges. The service consistently exceeds expected and clinical demands.

Key recommendations for further development and enhancing service include:

1. Refining Senior Medical "Top Cover" to ensure consistent, specialised intensive care advice during transfers.
2. Expanding coordination to 24 hours to enhance responsiveness and minimise delays.
3. Establishing a formal night shift in North Wales to ensure service availability and address the region's geographical challenges, with potential for a central base to support night operations.
4. Exploring an additional operational base in South West Wales to improve geographical coverage.
5. Assessing extended service hours in South Wales, including the potential for twilight shifts, to meet increased demand.
6. Engaging with emerging clinical networks to ensure integration into broader healthcare pathways.
7. Formalising patient feedback and aftercare mechanisms in collaboration with the EMRTS and WAA.

Some of this work has expectantly begun. A full report, including detailed findings and activities from April 2023 to March 2024, will be published as part of the Service Evaluation.



ACCTS delivered patient centred innovation

At ACCTS Cymru, our service is centred around the patient our contribution to critical care community in Wales isn't limited to the operational activity of our service.

We're focused on ensuring that every patient has access to the specialised care they need, exactly when they need it. By continuously looking for ways to overcome barriers—whether logistical, operational, or geographical.

We are proud to share, some of the progress we've made in the last year.

Supporting Knowledge, Education, and Training

We are committed to not only supporting our current healthcare staff but also inspiring the transfer practitioners and physicians of tomorrow. By offering comprehensive educational programmes and sharing our expertise, we aim to cultivate the next generation of critical care professionals who will carry forward the same commitment to patient-centred care. Additionally, we ensure that the wider healthcare community is equipped with the skills needed to manage critical situations, even in the rare instances when our team cannot be present.

Below are the infographics that provide further detail on the fantastic work that's been completed by our service

Transfer training for the professional era: A national approach

Tom Hirst, Cerys Hickenbottom, Bethan Jones, Meryl Jenkins & Mike Slattery

Planning and executing care in transfer outside ICU is a key element of training curricula for both anaesthetic and intensive care clinicians. Complexity of pathophysiology, level of supervision and frequency of exposure all require tailoring to individuals' level of training and experience. ACCTS and HEIW trainees presented a body of work at the Royal College of Anaesthetists college tutors' meeting to highlight the opportunities that placements within a dedicated transfer service present for training, and the challenges that have arisen as specialist transfer teams become the default and majority provider of critical care transfer. Undoubtedly an increase in safety, availability and capability has benefited the population of the Principality, but agreements between health boards, HEIW, and responsible trainers must ensure that this is sustained by training the next generation of transfer specialists.

The Past



Data from the South West Critical Care Network, showing regional ad-hoc transfer activity prior to commissioning of specialist transfer teams, highlighting the risks of using local 'flash teams' to facilitate transfer (Grier et al. 2020)

The Present



Data from a 2023 trainee-led survey in the Welsh school of anaesthesia, evaluating the impact of a specialist transfer service on trainee involvement in transfer, with 62 responses representing all training grades.

The Future

Stage 1		Stage 2		Stage 3	
All-Wales Transfer Course ¹	✓✓	Bank transfer doctor Posts ⁴	✓✓	Bank transfer doctor posts ⁴	✓✓
Clinical governance day ²	✓✓	Specialist training days ²	✓✓	14-day transfer placement	✓
Clinical observer shift ²	✓✓			SIA/SSY placements ⁴	✓✓
7-day transfer placement ³	*✓			DipRTM exam support ⁵	* *
		Anaesthetic Trainees	ICM Trainees		

- 1** Faculty & vehicles provided to every course **2** Available on request to all Welsh trainees **3** Formal agreement for all ICM trainees and Anaesthetic trainees from 1 health board
- 4** Subject to competitive application process **5** For suitably experienced candidates

While a large variety of tailored transfer exposure is available to Welsh trainees (above), formal agreements for placements only exist nationally for ICM trainees, and for anaesthetic trainees in a single health board. ACCTS hope to extend this to anaesthetic trainees with support of training programme directors and heads of school

Transfer training for the professional era: A national approach

Tom Hirst, Cerys Hickenbottom, Bethan Jones, Meryl Jenkins & Mike Slattery

In addition to providing placements for Welsh trainees, ACCTS have continued to develop and deliver bespoke transfer educational materials, supporting the delivery of cutting-edge transfer medicine and showcasing the ACCTS & EMRTS organisations across the UK. These include the newest draft of the 'Designed for Life' transfer guidelines, specialist study days, delivering the All-Wales Transfer Course, and the exciting development of a bespoke MSc at Bangor University.



Re-Designed for Life (left)

The most substantial re-write of the national critical care transfer guidance authored by ACCTS clinicians, reflecting the significant shift in transfer practice since the COVID-19 pandemic and commissioning of specialist transfer services, reflecting that the majority of transfers will be undertaken by the 2 specialist Welsh teams; ACCTS and EMRTS

Advanced Retrieval & Transfer MSc (right)

To address the unique requirements of specialist critical care transfer a novel MSc has been developed with Bangor University. 5 ACCTS practitioners have been enrolled along with external candidates, highlighting the unique educational provision offered for practitioners Wales.



All-Wales Transfer Courses (left)

The longstanding national transfer courses continue to ensure a universal baseline standard of knowledge and ability for clinicians undertaking transfer. ACCTS provide clinical expertise, vehicles and equipment to these courses, supporting 9 such courses in the last year alone.

CCTA portfolio (right)

For the unique new role of critical care transfer assistant, an educational portfolio has been developed to support professional development, in line with the existing RTP portfolio. This recognises the unique position and skillset of our CCTAs and provides a unique educational focus on critical care.



As transfer practice evolves and increases in complexity, ACCTS are already planning the next stages in educational development. Mechanical support devices, and advanced ventilation are planned for specialist training in the coming year. The ACCTS residential staff inductions, renowned across the wider transfer community for their high-fidelity simulations and expert lectures continue to grow in scope and ambition, with the latest transfer induction course scheduled for October.

Operational Barriers

Delivering safe, high-quality transfers for patients living with obesity requires innovative approaches. At ACCTS Cymru, we've focused on designing tailored solutions to meet the unique logistical challenges these patients face, ensuring their transfers are as efficient and safe as possible. Our commitment to patient-centred care drives us to continually refine vehicle design, equipment, and transfer protocols. This work has been shared at the Society of Bariatric Anaesthetists, extending our experience beyond Wales and placing ACCTS Cymru at the forefront of bariatric transfer innovation in the UK and beyond.

High-quality care by design: Providing critical care transfer for patients living with obesity in Wales

From 2004 to 2015 the prevalence of obesity in adults in Wales rose from 17.8 to 23.6% and continues to rise. In line with the service values of equity and high-quality care by design, ACCTS clinicians have worked with industry partners to develop a bespoke solution for transfer of critically ill patients living with obesity. This work was awarded the first prize at the Society for Obesity and Bariatric Anaesthesia (SOBA) scientific meeting. In order to meet the design goals of ergonomic, line-of-sight arrangement of all monitoring and therapeutic devices, a radical design change was required. The development of bespoke modifications to a standard bariatric stretcher highlights the gap in available medical equipment as transfer medicine practice advances beyond the pace of industry. Clinician-led design and innovation, as adopted by ACCTS Cymru has allowed development of unique solutions for the people of Wales, subsequently shared with transfer colleagues in the rest of the UK.



Weight is rarely a limiting factor in stretcher designs, as frontline ambulance stretchers offer a capacity >300kg already. However, width and mattress area is generally fixed and unable to accommodate a range of body sizes. Only one solution offered an incremental width adjustment combined with powered height adjustment. Bespoke modifications allowed all equipment to be safely mounted around the patient, with no compromises compared to the standard ACCTS stretcher configuration, ensuring equity of access to safe critical care transfer.

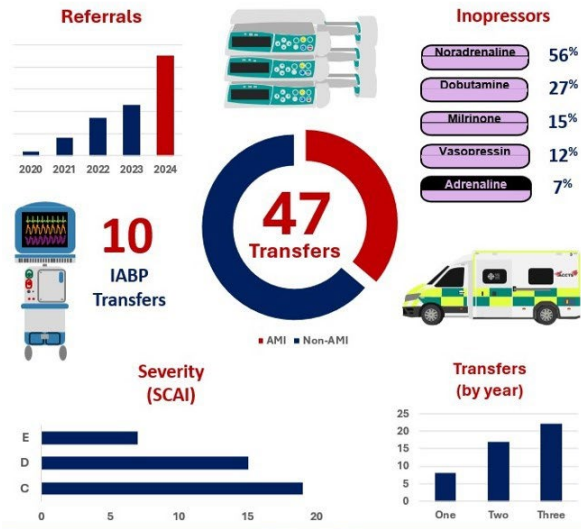
- Adjustable Mattress Area**
- Adjustable Patient Height***
 *Powered Operation
- Dynamically Tested Brackets***
 *Up to 100
- Ergonomic Equipment Mounting**

Physiological Barriers

Too sick to stay: Transfer of patients with acute cardiogenic shock

ACCTS clinicians have been conducting service evaluation on transfer of patients with cardiogenic shock, contributing to the growing literature on UK critical care transfer practice. This work has been presented at the Intensive Care Society state of the art conference and was awarded the Ed Major Prize at the Welsh Intensive Care Society. Patients can broadly be divided into those with shock related to acute myocardial infarction (AMI) and other causes (non-AMI). Patients with AMI can access percutaneous or surgical revascularisation across Welsh sites in Morriston, UHW, UHL and Glan Clwyd, along with Liverpool Heart & Chest Hospital. For patients with non-AMI cardiogenic shock, cohorting patients in shock centres and advanced heart failure centres in England is likely to offer improved outcomes, similar to those seen for patients with severe respiratory failure. In advance of commissioning of shock pathways, ACCTS Cymru clinicians have developed a significant body of expertise in these complex transfers, and are building relationships with shock centres to provide equitable access for Welsh patients.

At ACCTS Cymru, we are helping to shift the paradigm from the traditional view of patients being "Too Sick to Transfer" to recognising that many of these patients are actually "Too Sick to Stay." This shift acknowledges the significant physiological challenges these patients face and reinforces our commitment to ensuring that they receive timely interventions during transfer when necessary. Through ongoing educational training and by equipping our teams with the appropriate tools and resources, we are dedicated to making sure that even the most complex patients can be safely transferred with access to life-saving interventions when they need them most.



Supporting Innovation in Pre-hospital Care

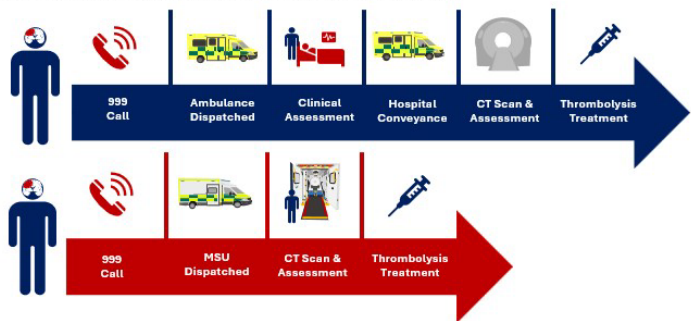
In partnership with EMRTS, we are harnessing our collective experience in vehicle design and process improvements to drive further innovation in pre-hospital care. This collaboration builds on our shared successes, allowing us to explore new ways to enhance patient care before reaching the hospital. A key focus of this partnership, through the Bevan project, is to bring traditionally in-hospital interventions—such as CT scanning for stroke patients—into the pre-hospital setting. This work aligns with EMRTS's core mission since its inception, and together, we are working to push the boundaries of what can be achieved in pre-hospital emergency care, ensuring patients receive critical interventions as early as possible.

Full details and expanded graphics can be found on our website

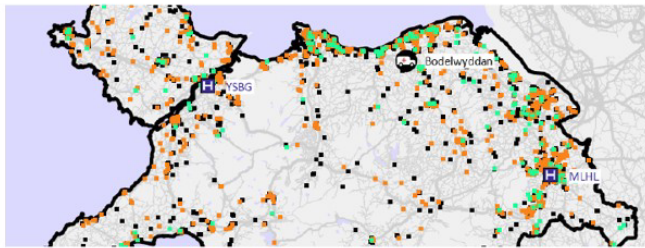
Prehospital Emergency Stroke Care: Bringing diagnosis & revascularisation to the patient

Tom Hirst, Mike Slattery, Shakeel Ahmad & David Rawlinson

ACCTS clinicians have led on a project to evaluate a novel approach to stroke care in Wales. In conjunction with EMRTS, the NHS Wales Executive, the Bevan Commission exemplar programme, and supported by the Jude Morris grant from Air Ambulances UK, the work focuses on the potential impact of mobile stroke units (MSUs) in Wales. MSUs were first described in 2010 and feature equipment and skills to perform CT scanning and thrombolysis in the field, potentially earlier in the patient journey. Extending the concept of high-quality care by design, and with expertise in deploying specialist ambulances and teams with capabilities comparable to hospital care, ACCTS clinicians collaborated with Optima to develop a simulation describing MSU operations.



Pairing AMPDS 999 call data from WAST with data from the sentinel stroke audit programme (SSNAP), a year long simulation of stroke calls including false and true positive stroke cases has been produced, allowing a variety of clinical operations to be modelled. Daytime mobile stroke unit operations from a variety of existing ambulance stations were compared to a baseline amber one WAST response, incorporating data from UK trials of mobile stroke units and data on in-hospital CT scanning and thrombolysis performance.



Comisiwn Bevan Commission

ACCTS Adult Critical Care Transfer Service Cymru

Wales Ambulances Air Ambulance CYMRU Charity

The Wales Air Ambulance Charity



Our services are delivered via an important partnership with the Wales Air Ambulance Charity.

What is the difference between EMRTS Cymru and the Wales Air Ambulance Charity?

Wales Air Ambulance is a charitable trust which relies entirely on the generosity and support of the Welsh public to help keep the helicopters in the air and Rapid Response Vehicles on the road.

The charity does not receive direct funding from the government.

EMRTS Cymru, a part of NHS Wales and supported by Welsh Government, supplies a highly trained NHS Critical Care team.

This exclusive and highly effective partnership between the NHS and the Wales Air Ambulance Charity demonstrates the benefits of cross-sector models, and the important role charities can play in the provision of healthcare.

What is the Wales Air Ambulance Charity?

Launched on St David's Day 2001, the Wales Air Ambulance Charity is the official air ambulance service for Wales. The Charity relies entirely on donations to raise £11.2 million each year. This funds four helicopters across Wales and the service's fleet of Rapid Response Vehicles. It is the largest air ambulance operation in the UK.

Income generation is supported by community fundraising, legacies and corporate support, a national retail and trading operation, and a Lifesaving Lottery.

The service has attended over 50,000 missions since its inception.

The Charity's Mission

To deliver lifesaving, advanced medical care to people across Wales, whenever and wherever they need it.

The Charity's Vision

To improve the lives of patients and their families by being a world leader in advanced, time-critical care.

For more information about the Wales Air Ambulance Charity, visit www.walesairambulance.com

EMRTS Cymru would like to thank the charity for their support as we continue to work collaboratively for the people of Wales.

Financial Statement

In 2023-24, EMRTS received £8.32m of revenue funding from EASC with a further £0.62m of revenue funding from the Welsh Government. Actual expenditure was within £7,000 of the total allocations of £8.95m.

A £0.60m Welsh Government capital allocation was available in the 2023-24 financial year. Actual expenditure was some £0.5m, the underspend was carried forward to 2024-25.



EMRTS Education and Training

EMRTS continually provides educational opportunities and training to the operational teams within the service, allowing them to improve and develop so we can always provide the best care to the people of Wales.

This year a one-day session captured ECCH dispatchers focusing on communication, human factors and updates pertinent to the crews that operate at the Hub. In addition, we inducted two new members of the Dispatch Team into the service making them familiar with the operational role of the EMRTS and also familiarisation of the technology and systems used during dispatch. This includes our own internal terminology utilised when informing them of the cascade of work streams when our pre-hospital teams administer blood product and component therapy – “CODE RED”.

Other induction courses included training our PHEM doctors that have joined the service to support their sub-specialty training of clinical work within the pre-hospital and retrieval environments, and the 2024-25 cohort of Critical Care Practitioner Fellowship programme (CCPf). As the PHEM doctors progress with their training throughout the year, we assess this internally and provide support with exam preparations. The CCPf programme allows clinicians who are employed within a Wales Health Board, to work with our pre-hospital care teams for a 12-month period. The programme offers exposure, experience and a learning opportunity to the non-doctor clinical workforce, and gives insight into working within this specialised field. The CCPf is a volunteer scheme and we acknowledge the dedication the fellows demonstrate with completion of this programme.

The end of 2023 saw a new aviation provider (GAMA) join the WAAC team which required internal training to familiarise crews with differences to the interior of the aircraft, stretcher and communication systems. The CCPs, who are also technical crew members, were also required to complete GAMA Crew Resource Management (CRM) and Dangerous Goods training.

In addition to delivering internal training, we also host engagement opportunities across Wales and have worked closely with local fire and rescue teams, ambulance crews and nurses currently within university, as well as supporting the British Thoracic Society with their seminar event.

In collaboration with British Army 203 (Wales) field hospital, we ran Exercise Flying Medic at Kinmel Park Camp during October. This exercise consisted of high fidelity simulated training, case discussions and a mass casualty event during dark hours. It was a great opportunity to work alongside our military colleagues and share in joint training and education during this exercise.

The EMRTS Clinical Governance Day plays a key part in delivering clinical knowledge and skills to all professional colleagues, together with this we have developed a closed practitioner governance day, where we discuss cases, audits and have guest speakers - all of which focus on the practitioner workforce, their clinical cases and topics that support the knowledge and growth of our non-doctor clinicians.

Internally we continue training the practitioners through their development, assisting them to achieve positive outcomes throughout the various phases of the CCP pathway. The CCPs

undertake our own assessments as well those who are undertaking the MSc Advanced HEMS Practice associated with Bangor University.

EMRTS has undertaken several major incident training events using different methods of delivery such as video conferencing, interactive PowerPoint and on-line assessment all of which help with training and engagement with these alternative platforms of delivery.

The EMRTS training team is looking forward to planning events for next year that will arm our staff with the knowledge and skills to help provide the best care in the pre-hospital and retrieval environments.

PHEM Training

EMRTS continues to be the principal Health Education and Improvement Wales (HEIW) approved Local Education Provider (LEP) for Pre-Hospital Emergency Medicine Training in Wales. We are proud to be able to offer our trainees an almost unique experience with access to a vast range of opportunities.

Geographically, our trainees gain experience working in busy urban environments and the remote and rural parts of Wales. They complete shifts at all of our four EMRTS platforms as well ACCTS Cymru shifts and Community Emergency Medicine with the Physician Response Unit in Aneurin Bevan.

Trainees wishing to complete sub-specialty training undergo national recruitment and Wales is consistently one of the most competitive posts across the country.



'The Pre-Hospital Emergency Medicine (PHEM) training experience aims to develop trainees to consultant level practice in both primary response and secondary transfer. The experience here at EMRTS has been amazing and completely unique!

Training in Wales provides exposure to incidents in rural, urban, mountain rescue, coastal, and community environments. This diversity in training opportunities within the EMRTS programme is unparalleled. This broad experience is blended with opportunities to gain skills in transfer medicine with the ACCTS, and community emergency

medicine in partnership with Aneurin Bevan University Health Board.

I feel incredibly well supported by EMRTS and very well prepared as a consultant level practitioner in Pre-Hospital Emergency Medicine. I cannot speak highly enough of the Critical Care Practitioners, Consultants, Trainers, Pilots and wider EMRTS team. It has been a privilege to train here.

*Pascale Avery
Pre-Hospital Emergency Medicine Trainee*

Completion of PHEM training requires coverage of an extensive curriculum. The education team has facilitated and supported a number of training events over the past 12 months including simulation consolidation days and surgical skills courses. We support the regional training days with nearby air ambulance and critical care colleagues at both Bristol and Dorset.

This last year has seen the introduction of an Ultrasound Course designed and run by one of our current PHEM trainees and a monthly case discussion forum that has proved successful and popular with the trainees.

We recently ran our Wales PHEM Induction course and welcomed several new colleagues to the service. This is a week-long course and involves aviation experience, clinical scenarios, time spent in ambulance control as well as thorough induction to EMRTS and the Wales Air Ambulance.

Training and education continue to be at the forefront at EMRTS. This would not be possible without the hard work, time and dedication of not only the education team but all team members within the service. We are dedicated to continuing to deliver high quality training and education and excited for what the future will bring.

**Laura Owen Training Programme Director Consultant in Emergency
Medicine and Pre-Hospital Emergency Medicine**



Research and innovation

The service strives to provide evidence-based care in a traditionally evidence poor environment. We are proud to work with academic colleagues across Wales and the UK, including Bangor, Swansea, Cardiff, Bristol and Warwick University, as well as the Welsh Ambulance services University NHS Trust and Welsh Blood Service. This includes funding from Health and care Research Wales (HCRW), and National Institute for Health and Care Research (NIHR).

In addition, we continue to forge strong collaborative relationships with the wider community including the National HEMS Research and Audit forum (NHRAF), TriTech institute, The Bevan Commission and industrial partners.

Through these partnerships there are active research studies ongoing exploring dispatch, clinical care and projects extending beyond their initial scope. Applied linguistics, artificial intelligence, clinical psychology, human factors, anaesthesia, novel blood products and communications technology are all areas of active research interest. In addition, the service continues to use multi-

sourced linked data to monitor and improve its service delivered to patients in partnership with Digital Health Care Wales and Swansea University.

For more information please visit <https://emrts.nhs.wales/research/>

EMRTS Service Review

An update from Commissioning Director of Ambulance and 111 (Interim) , Stephen Harray:

“I wanted to update you on decision of the NHS Wales Joint Commissioning Committee (JCC) – which has replaced the Emergency Ambulances Services Committee (EASC) from 01 April 2024 – following the meeting on Tuesday 23 April. The JCC met to consider the recommendations of the Emergency Medical Retrieval and Transfer Service (EMRTS) Service Review. As you are aware, the purpose of the Review was to look at how the service could be further improved to reach more people - where currently there are 2-3 people per day who need the service but do not receive it - and also to make more effective use of the clinical teams across Wales – some of whom are not used as much as they could be. This Review began afresh after the initial EMRTS Service Development Proposal was first received by the then EASC Committee in November 2022, the JCC Committee and I thank stakeholders for their patience during the time taken to ensure the work was carried out robustly. The JCC Committee recognised that the engagement process identified differing views on the ways in which the service could further improve.

In delivering improvement there is always a challenge in reconciling differing views into an agreeable way forward but there is clear common ground in finding the best solution to reach more people who need the service and make better use of the critical care expertise of the EMRTS teams. The JCC Committee, which comprises four Lay Members and seven Health Board Chief Executives, acknowledged there were different views from some members but arrived at a majority decision to accept the recommendations to merge Caernarfon and Welshpool bases into a new location in central north Wales, with an exact location to be decided at a later stage. The recommendations also included providing an additional bespoke road-based service for rural communities in direct response to what was heard during the Review’s engagement. It is expected that these changes will enable more people to benefit from the clinical expertise delivered by teams of this critical care service by reducing the current unmet patient need across the whole of Wales in every Health Board area. These changes will keep the same number of helicopters and teams but by organising the service operations differently, it also allows an improvement to night coverage where there is significant demand for this service, particularly in the north areas of Wales. These developments introduce night flying from North Wales beyond 8pm instead of just the Cardiff team having to cover the whole of Wales.

The service is delivered in partnership between the Wales Air Ambulance Charity and the EMRTS clinical teams of NHS Wales and the JCC Committee acknowledges the public passion for this service and the public interest on its future developments. I am grateful for all the responses submitted throughout the engagement and all the time and interest shown in the EMRTS Service Review. I appreciate that this decision may be disappointing for some citizens however the JCC Committee has given due consideration to these and is assured that this development will provide an improved service for population of Wales and that people who receive a service now will continue to receive a service. At the heart of this issue is a collective desire - between the public

and stakeholders - to work together with the Charity and EMRTS - to make this great partnership service even better for communities in Wales as it continues to evolve so that more people can benefit from the clinical outcomes the service provides. Next steps, following this JCC Committee decision, will be to set out the implementation plan in more detail. This includes key milestones and timescales that will be reported back through the JCC Committee including the bespoke rural service with no changes to base locations expected to take effect until 2026.

This maintains the transparency that has been delivered throughout the Review. I am particularly grateful for the way in which the Charity and EMRTS have supported and contributed to the Review in what have been challenging circumstances for them given the uncertainty affecting their people and business planning. I am also grateful to Llais, the national citizens voice body for Wales, who advised on the engagement as well as NHS Wales colleagues who have helped deliver the all Wales engagement with citizens. As has been the case throughout the Review's engagement, I am keen to continue listening to and working with public and stakeholders, NHS Wales colleagues, the Charity and Llais as we work through the next steps. I sincerely hope that everyone can continue to support the Charity that enables this life-saving partnership service to be delivered for everyone in Wales. "

Stephen Harchy

Director of Commissioning - Ambulance and 111 (Interim)

The latest updates can be found online at <https://jcc.nhs.wales/latest-news/>



Patient Liaison – Aftercare

Recovery from a critical illness or injury can be long and challenging as people move between different departments, hospitals, and rehabilitation centres before finally returning home. Our jointly funded Aftercare service is delivered by two patient liaison nurses, and an administrator, who support patients and relatives on that journey, providing consistency and support throughout, including after discharge home.

Sadly, not everyone survives, and the deaths of our patients are often sudden and unexpected therefore the Aftercare team provide support to bereaved relatives and answer any questions they have about the treatment given at scene.

As well as, supporting patients and their relatives, the Aftercare Team co-ordinates and helps to deliver Peer Support and staff wellbeing that spans both organisations.

During the last year, the team have reviewed all cases, provided support for over 140 patients and relatives directly.



Patient Care



Relative Care



Staff support



Outreach

In addition, the patient liaison nurses attend an average of 14 multi-disciplinary hospital meetings per month, ensuring those who may benefit most from the service are identified as early as possible, while providing crucial links into hospital networks. This



Training



Legal



Governance



Charity

enables ongoing feedback to clinical teams regarding patient diagnosis and outcome ensuring a conclusion to the case and any ongoing learning or development.

Staff support has been provided both formally and informally through the Peer support team to 30% of staff. They also attend regular meetings with charity colleagues to coordinate patient stories and contact. For more information, please visit <https://emrts.nhs.wales/patient-liaison/> , email emrts.patient@wales.nhs.uk or call 0300 3000 067.

Case Study



Craig Harrendence was riding his motorcycle near Penlleger in Swansea when one of the wheels clipped the central reservation, causing him to catapult through the air and land approximately 60 foot from his bike. Crew on a passing ambulance found him lying face down close to his bike with his helmet still on.

Emergency support was called and an EMRTS Critical Care team arrived quickly, having already been airborne and returning to their base in Dafen from a previous incident.

The crews first rolled Craig onto his back, making sure his spine remained in alignment while they removed his helmet. He was attached to a monitor and intravenous lines were inserted into his arms and hand. His blood pressure was found to be very low, a sign of possible internal bleeding, prompting them to give him a transfusion of two bags of blood. He was also given strong pain relief and fitted with a tight belt to his waist to support any internal injuries.

His helmet was cracked, and with Craig becoming agitated and confused, the crew suspected a head injury, so administered a general anaesthetic to protect his brain to enable them to transfer him safely. He was moved onto a stretcher and loaded onto the Wales Air Ambulance helicopter and flown to University Hospital of Wales, who took over his care.

The former soldier with the Royal Engineers, who continues to undergo physiotherapy, said: "My left leg was open so you could see my fibula, but pelvis was broken, I had a collapsed lung and fractured spleen, and internally my blood was low which wasn't a good sign. I have had to have a buttock removed.

"I've been told that things were not looking good at all, but I came round after three days and was told it was unlikely I would walk again, and was looking at having to use a wheelchair.

"But I am a stubborn man, and I was determined to get better. I spent 10 weeks in hospital and then I was home. My consultant was blown away by my recovery and the physios were amazed.

"I have reduced my medicine by my own request, and I self-catheterise now so I have to be careful with what I eat – there's no pizza or red wine!

"But I'm fiercely independent and I am coping. And without the intervention of EMRTS the outcome would have been very different - I would not be here talking about what happened to me today."

Thank you for taking the time to read about the critical care services we provide and If you have any further queries about EMRTS or ACCTS and the work we do you can contact us on:

W: emrts.nhs.wales
E: EMRTS@Wales.nhs.uk
T: 0300 3000 57

