ELUSEN AMBIWLANS AWYR CYMRU
WALES AIR AMBULANCE CHARITY

In partnership with **EMRTS Cymru**



Annual Review

April 2018/March 2019

Serving Wales. Saving Lives.

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Trustees
D. Gilbert OBE (Chair)
K. Jacques (Vice Chair)
M. James
D. Kitto
D. Jones-Morris
J. Wagstaffe
S. Curtis
O. Davies
B. Kirsop
R. Locke
L. Dafydd

Registered in England and Wales
Company number: 4036600
Charity number: 1083645

Patron: Sir Bryn Terfel.
Company Secretary: J. Stephens.
Chief Executive: A. Hughes.

Foreword

In 2019, the Wales Air Ambulance Charity came of age, marking its 18th anniversary on 1 March. In that time, we have grown from a one helicopter service into the largest air ambulance operation in the UK.

With the introduction of consultants and critical care practitioners to the service in 2015, along with pioneering ED-standard equipment, we have also become one of the most medically advanced air ambulance operations in Europe.

This medical enhancement has been possible thanks to a unique Third Sector and Public Sector partnership between the Wales Air Ambulance Charity and NHS Wales. The medical part of the operation is known within NHS Wales as the Emergency Medical Retrieval and Transfer Service (EMRTS Cymru), or the 'Welsh Flying Medics'. EMRTS Cymru focuses on the medical workforce and medical governance of the service.

NHS Wales, through EMRTS Cymru, supplies the medics while the Charity works tirelessly to raise the £6.5 million required every year to keep the helicopters flying.

For the first time since the partnership began, we have brought together our end-of-year summaries into one document – this Annual Review.

This service thrives thanks to the support of our trustees, employees, volunteers, medics, and pilots (past and present) and their dedication to our cause of serving Wales and saving lives.

Our incredible success has been made possible thanks to you, the people of Wales. Over the past eighteen years, you have helped us raise over £100 million and save countless lives. Thank you for your overwhelming and ongoing support.

Wales Air Ambulance was created by the people of Wales, for the people of Wales. Our success is your success and the information in this review is a testament to that.



Dave Gilbert OBE
Chair of Trustees, Wales Air Ambulance Charity



Professor David Lockey
National Director, EMRTS Cymru

Our Service - Fast Facts

Medical Capability

- **Consultants and critical care practitioners** on scene to make advanced assessments and critical management decisions.
- **The ability to undertake blood transfusions**. We carry four types of blood products supplied through a partnership with the Welsh Blood Service: red blood cells, freeze-dried plasma, fibrinogen concentrate and prothrombin complex concentrate.
- **The ability to administer** anaesthesia and analgesia (pain relief).
- **Point-of-care-testing devices:** portable blood gas analysers and an ultrasound scanner.
- **Advanced technology** (e.g. life support ventilators suitable for all ages).
- **An advanced flight incubator system.**
- **Automated chest compression devices** to aid CPR.

Helicopter Capability

- **Two powerful turboshaft** engines and large fuel tanks. Enables crews to fly long distances without the need to refuel.
- **The helicopter can fly at 130 knots (around 150mph).**
- **It has five seats.** Allows for additional passengers, such as specialist medical crew or a patient's relative if appropriate.
- **A high-speed internet connection.** Crews can communicate vital information to hospitals directly from medical equipment en route.
- **The latest weather radar** technology, and traffic and terrain avoidance systems.
- **Ergonomic storage.** A customised storage system specifically for the medics, so they can access all their kit precisely when they need to.
- **Advanced lighting systems.** Night-flight technology will help us to extend our hours of flight.
- **Superior oxygen capacity.** Crews can carry 600 litres of oxygen on a flight.
- **Customised stretcher system.** The stretcher can be wheeled out of the aircraft and directly into the hospital, and has brackets around the stretcher to fix the crews' specialist equipment to it when moving patients.
- **Pioneering bracket systems** for medical equipment. Unique designs have been used to secure our advanced medical equipment into the aircraft. Equipment can be charged in the helicopter, so it is ready to go as soon as the crews get a 999 call – saving time and reaching patients even faster.



The Charity Operation

About Wales Air Ambulance

Launched on St. David's Day 2001, Wales Air Ambulance is the official air ambulance service for Wales. We provide air cover to relieve illness and injury across the country.

We are the only air ambulance charity based in, and dedicated to, Wales and rely entirely on donations to raise £6.5 million each year to keep our helicopters flying.

Our Mission

We are on standby every day to protect human life through Helicopter Emergency Medical Services and air ambulance transfers across Wales.

Our Vision

To provide a 24-hour operation so we can help people both day and night, and continually strive for an outstanding air ambulance service available to everyone in Wales (see page 22).

Serving Wales, Saving Lives

Wales Air Ambulance covers the whole of Wales every single day, covering rural countryside, bustling towns and cities, along the Welsh coastline and across vast mountain ranges. Our four airbase operations in Caernarfon, Llanelli, Welshpool and Cardiff are ready to save lives wherever needed.

Flying ED (Emergency Department)

Wales Air Ambulance can be there for anyone in Wales within 20 minutes, taking the emergency department (ED) directly to the patient. Find out more about our medical operation on page 10.

Children's Wales Air Ambulance

The Charity also runs the Children's Wales Air Ambulance, a specialist division to provide expert care for some of Wales' youngest patients. Our crews airlift paediatric and neonatal patients to and from specialist hospitals across the UK, as well as providing vital air cover on emergency missions.

Children's Wales Air Ambulance
Ambiwlans Awyr Cymru i Blant



Public and Corporate Support

There are many ways in which the public and businesses support Wales Air Ambulance. Every pound and every spare hour makes a vital difference to what we do. Here are some examples of how we are supported:

Monetary Donations

Donations are made via postal mail, over the phone (**0300 0152 999**), through our website (**walesairambulance.com**), or via our Facebook page.

Legacies

Gifts in Wills have become an invaluable way to support the Charity (see page 9).

Lifesaving Lottery

Our Lifesaving Lottery offers £1,500 in cash prizes every week. As of 31 March 2019, the lottery had 95,027 members.

Donations of Pre-loved Goods

Pre-loved goods (furniture, clothes, DVDs, CDs, bric-a-brac, toys and more) are donated to us, either directly to our shops or via our free collection service.

Shops and Café

The Charity has 17 shops located across Wales. We also have an award-winning café based at Caernarfon Airport called Caffi HEMS (see page 19).

Fundraising

Across Wales, people find their own personal, and often creative, ways of raising money for Wales Air Ambulance.

Volunteering

Volunteers are crucial for our mission of continuing to provide an air ambulance service for the people of Wales. Our volunteers are the lifeblood of the Charity and support us in our shops and warehouses, as well as assisting our transport teams. They also attend fundraising and community events, in addition to supporting administrative functions at our bases.

Corporate/ Employee Support

We often receive support directly from businesses and their employees. They do so in the following ways:

- Donating before tax with Payroll Giving.
- Nominating us as Charity of the Year.
- Volunteering staff time or work-place fundraising.
- Donating services or supplies.

Cardiff Heliport

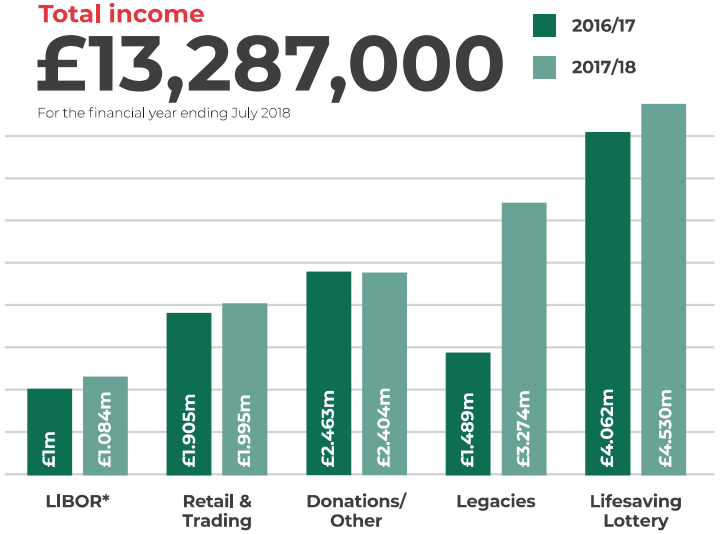
In August 2018, Wales Air Ambulance took over the lease of Cardiff Heliport in a new venture which will help to generate funds for the service (see page 18).

Charity Income and Expenditure

Total income

£13,287,000

For the financial year ending July 2018

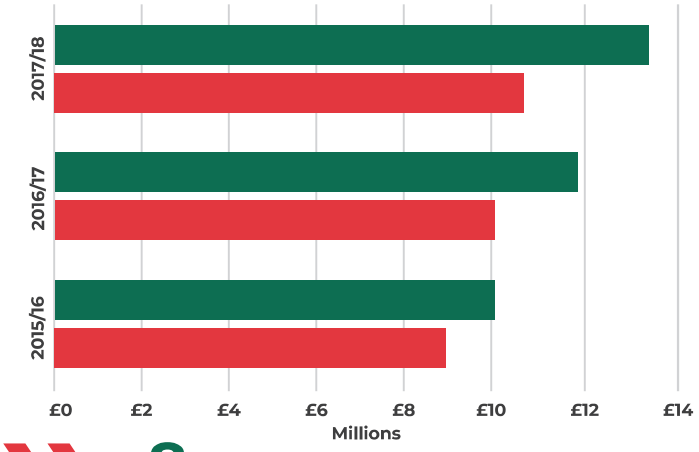


Generating funds

For every £1 we spend on fundraising, we generate more than £5 in income.



Income vs Expenditure





Income by source

8% LIBOR*

15% Retail & Trading

18% Donations / Other

25% Legacies

34% Lifesaving Lottery

Building Resilience

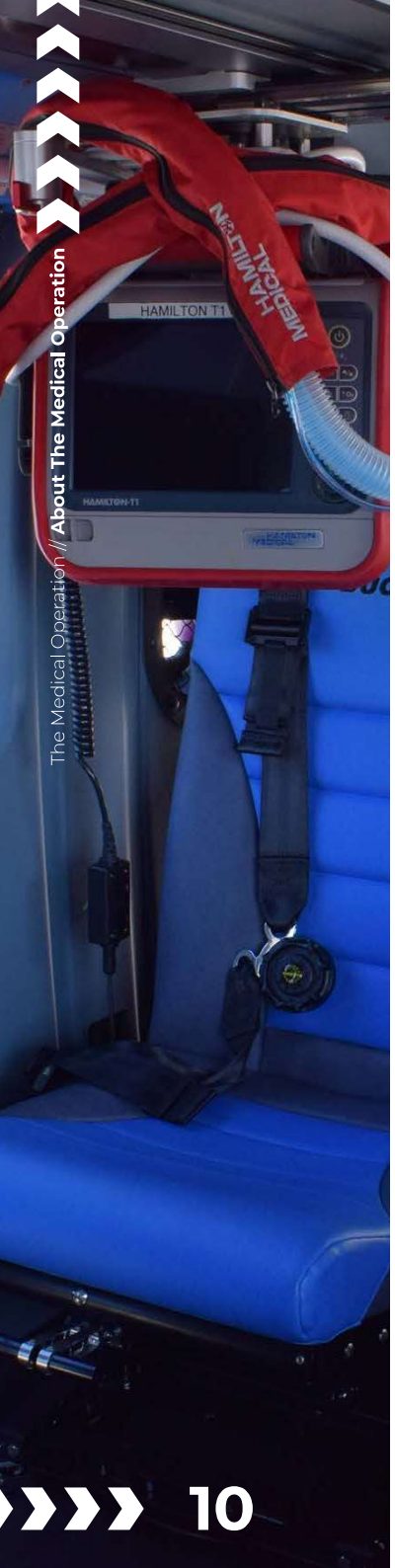
Delivering a healthy surplus is crucial to ensuring we can continue to offer our lifesaving service. As of 31 July 2018, we have sufficient unrestricted cash reserves to fund our operational cost for over 7 months. For more information regarding the Charity's finances, please see the financial statements published on our website.

*Wales Air Ambulance received a donation of £1.084m in 2017/18 and £1m in 2016/17 from the LIBOR banking fines fund held by the Treasury.

Legacy Tributes

We dedicate this page to the people below, who have left the greatest gift; a legacy that will support those in need and save lives.

- Allan John George Beaumont
- Ann Voisey
- Anne Elizabeth Murphy
- Anne Nest Humphreys
- Anne Thomas
- Arthur Walford Griffiths
- Barbara Muriel Dance
- Bertie Humphrey Jones
- Beryl Patricia Gwen Vaughan
- Catherine Kirkham
- Catherine Roberts
- Charles Norman Steele
- Charles Perry
- Cyril James Jones
- David Clifford Davies
- David Ivor Jones
- David Langmaid
- David Wyndham John
- Desmond Edward Jenkins
- Dilys Clwydwen Jones
- Edith Edna Thomas
- Elizabeth Diana Jones
- Elizabeth Fay Garrett
- Ernest Hedley George
- Ethel Hillidge
- Eunice Mary Hagelstein
- Evelyn Tearall
- George Arthur Llewellyn Hawkins
- Gwenda Jones Williams
- Helen Vivian George
- Irene Emma Hancock
- Jane Malltwen Williams
- Joan Ellen Susan Deneen
- Joan Emma Mynott
- Joan Hooper
- Joan Mary Merchant
- Joyce Ceridwen Edwards
- June Hopkins
- Jane Malltwen Williams
- Joan Ellen Susan Deneen
- Joan Emma Mynott
- Joan Hooper
- Joan Mary Merchant
- Joyce Ceridwen Edwards
- June Hopkins
- M Barrs
- M E Williams
- Madge Bolton
- Mair Alwyna Jones
- Margaret Nona Priscilla Edwards
- Margaret Novello Morgan
- Margaret Roberts
- Marion Hughes
- Mary Frampton
- Maureen Linda Jackson
- Meira Rice-Jones
- Michael Edwin Daws
- Mona & Derek Hansing
- Morgan Davies
- Nance Keevil
- Nesta Vaughan Brazell
- Olive Betty Goddard
- Patricia Maura Hackett
- Patricia Sadie Harbridge
- Patricia Tonkins
- Robert Andrew Miggiano
- Ronald Hubert Noot
- Sarah Ellen Pritchard
- Sheila Jean Badham
- Stan Clarke
- Stanley Reginald Salt
- Sylvia May Bithell
- Thomas Zedric Gwyn Jones
- Valerie Edna Jones
- Vera Robinson
- Vincent Davies
- Wendy Angela Kitty Doye
- William Hubert Evans
- William Huw Rees
- William Lewis Roberts



The Medical Operation

About the Medical Operation

In April 2015, a new and more advanced medical workforce began to operate from the Wales Air Ambulance bases. The Wales Air Ambulance Charity partnered with NHS Wales to create a consultant-led medical operation – known within the NHS as the Emergency Medical Retrieval and Transfer Service (EMRTS Cymru). EMRTS Cymru is responsible for the medical workforce and medical governance of the service.

Medical 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.

Benefits

The Wales Air Ambulance Charity and NHS Wales introduced EMRTS Cymru in the belief that it would bring a series of benefits to Wales, as follows:

- Our Service will deliver equity of access to pre-hospital critical care for the people of Wales.
- Our Service will deliver health gains through early ED - standard treatment (provided outside of normal paramedic practice) and direct transport to specialist care centres.

  This should improve the recovery of a patient and increase the number of 'unexpected survivors'.

- Our Service will deliver downstream benefits for hospitals across Wales. More patients will be taken directly to the most appropriate centre with fewer requirements for secondary transfers. Previously, this would have depleted hospitals of specialist medics (such as anaesthetists) and created additional cost for the Welsh Ambulance Service.
- Our Service will deliver clinical and skills sustainability in Wales. We will support consultant and critical care practitioner (CCP) recruitment into Wales by offering opportunities with the Service as a part of the recruitment of appropriate NHS Wales positions. We will also support educational activities across NHS Wales.

Medical Services

The medical services we offer are as follows:

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

  In addition, our 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).

  This includes:
- Transporting neonatal teams to distant time-critical cases by air.
- Supporting midwife units and home deliveries by stabilising neonates and women with life-threatening problems and transporting them to a consultant-led delivery unit.

  Finally, 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.

  In addition to the Wales Air Ambulance Charity helicopters, medics have access to a fleet of Rapid Response Vehicles (RRVs). Five Audi Q7s 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. A vehicle is stationed at each Wales Air Ambulance base. Medical equipment has been designed to be interchangeable between the Charity's helicopters and the RRVs.

  Our medical operation is coordinated and tasked centrally via the Charity-funded Air Support Desk (ASD) which is based at the Welsh Ambulance Service headquarters in Cwmbran.

Twilight Critical Care Car

To support frontline ambulance and hospital services in South Wales during the pressurised winter months, the Service ran an additional critical care car-based service.

Every Friday, Saturday and Sunday between 4 January 2019 and 31 March 2019, a critical care team was operational in a Rapid Response Vehicle. It ran between the hours of 2pm and 2am, identified as a period of high demand for medical services in the South Wales region. It worked alongside the existing 12-hour (8am-8pm) Wales Air Ambulance/RRV operation.

A consultant and critical care practitioner (CCP) team staffed the car and the scope of practice was the same as the existing 12-hour operation.

Statistics relating to the Twilight Critical Care Car are included in the overall mission data presented on page 16.

Medical Governance

Our medical operation (EMRTS) has developed a robust system of organisational and clinical governance, as indicated in the graphic below.

Emergency Ambulance Services Committee (EASC)

(All NHS Wales Trusts, Welsh Government, WAA, EMRTS)

Abertawe Bro Morgannwg UHB

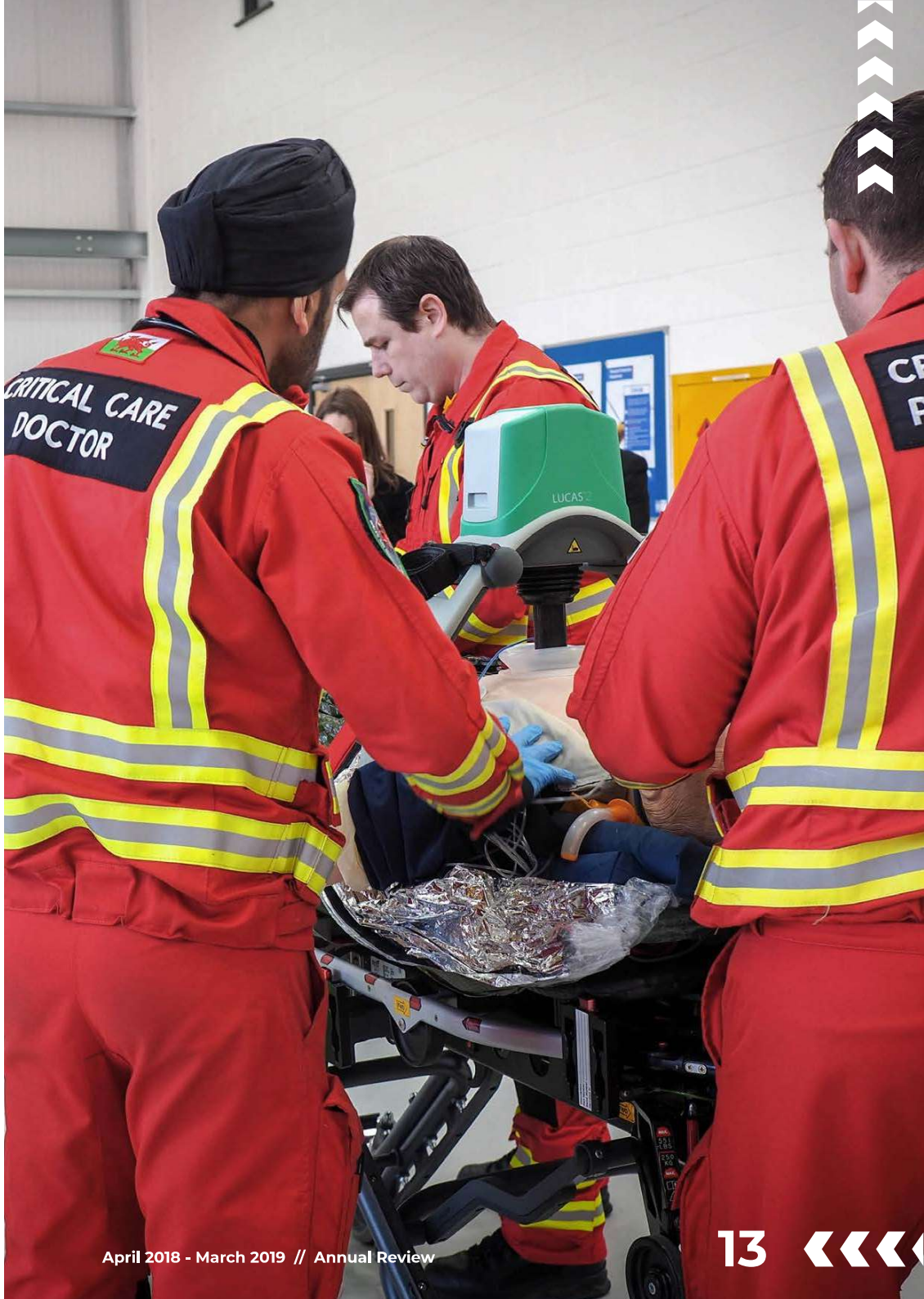
Swansea Bay UHB since 01/04/19

(CEO, Medical Director, Governance Sub-Committee)

EMRTS Clinical and Operational Board

(senior management and clinicians)

- External Clinical Advisory Group
- Medicines Management Group
- Airway Group (RSI Audits)
- Blood Group (Blood Audits)
- Equipment Group
- Transfer Group
- Education and Engagement Group
- Research and Audit Group



Medical Financial Statement (EMRTS)

(Please note: this relates to NHS Wales contributions to EMRTS, not the charitable funds raised by the Wales Air Ambulance Charity.)

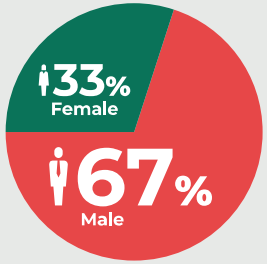
EMRTS met its financial target in 2018/19 by delivering a modest surplus of £76,000 against its revenue funding allocation of £3.6 million.

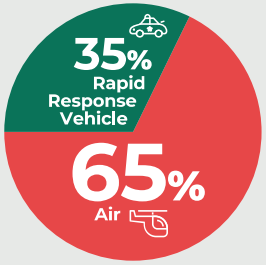
The surplus will be carried forward into 2019/20 to support the ongoing delivery of the medical service.

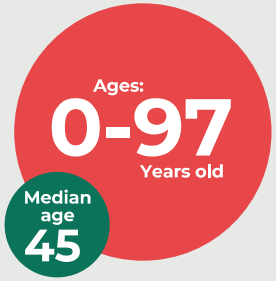


April 2018 – March 2019 Mission Data

Total number of calls - 3091

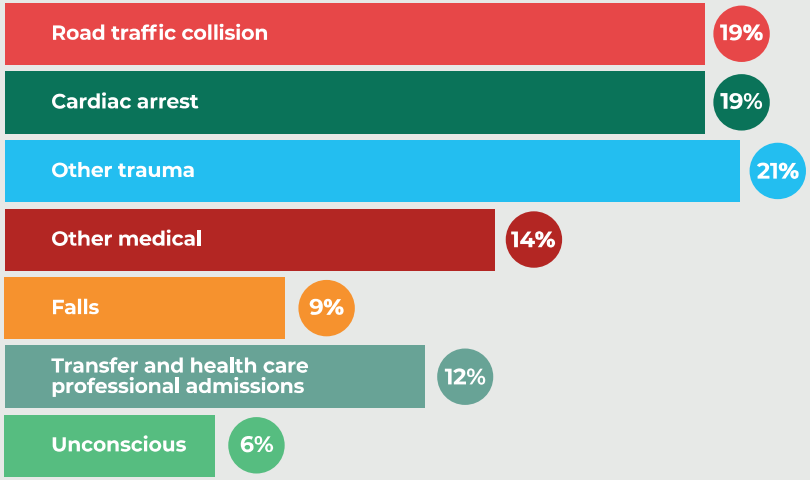




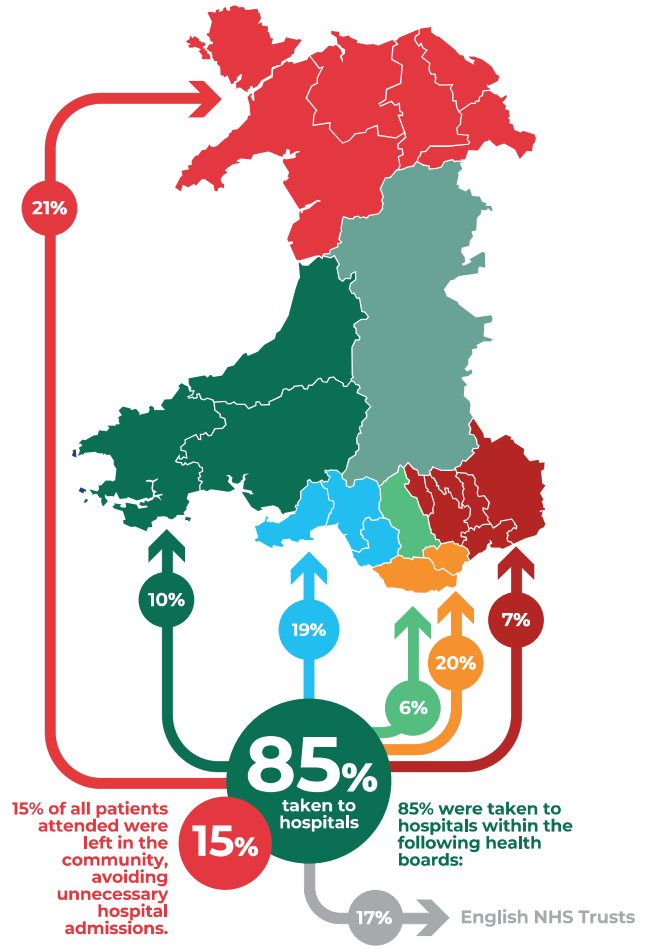


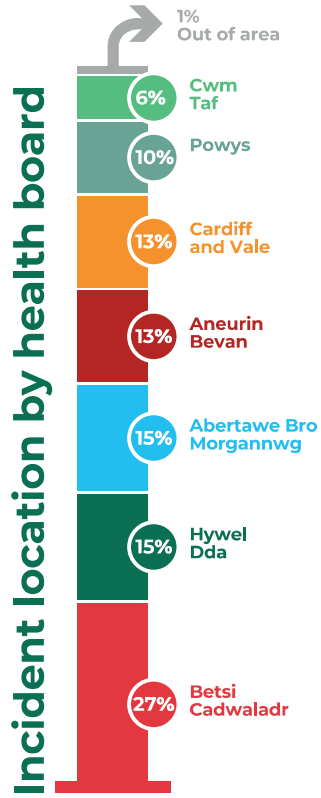
12% of the patients attended were paediatrics (under 17 years of age)

Cases attended by category



Patient destinations







172 *Figure pending final audit.

Emergency Anaesthetics





74 *Figure pending final audit.

Blood Product Transfusions



Success Stories

Welsh Public Help Air Ambulance Charity Reach Milestone

During September 2018, Wales Air Ambulance reached a significant milestone when it surpassed a total of **30,000 missions** since its inception in 2001.

This rapid development has only been possible thanks to the generosity of the Welsh public.

The Charity's first employee is now its Chief Executive, Angela Hughes. Angela said: "It's humbling to know that there have been 30,000 occasions where we have been available to support those in need. The noise of rotor blades turning is a familiar sound to us who work for the service, however, it is a constant reminder that we would not be here without public support.

"To the people of Wales, we say thank you. Thank you for joining our lottery. Thank you for using our shops. Thank you for your donations. We are a service created by the people of Wales, for the people of Wales."

Wales Air Ambulance Takes Over Cardiff Heliport

In August 2018, Wales Air Ambulance took over the lease of Cardiff Heliport in a new venture which will help to generate funds for its lifesaving service.

The new deal was struck with Heliport owners Cardiff Council and the previous leaseholder, Cardiff City Heliport Ltd. It is believed to be the first time an air ambulance charity has taken operational control of a commercial heliport.

Based on Foreshore Road in the Tremorfa area of the city, the Heliport is already home to the Charity's Children's Wales Air Ambulance division, which provides specialist transfers for vulnerable babies and children across Wales.

Wales Air Ambulance Chief Executive Angela Hughes said: "The Charity has been working in partnership with Cardiff Council and the previous leaseholder of Cardiff Heliport to transfer the lease and day-to-day running of the site to Wales Air Ambulance. Following a due diligence process, we are delighted to announce the transfer has been completed.

"This is an exciting and pioneering opportunity for Wales Air Ambulance to take on a new venture which will help to generate funds for our lifesaving cause. All profits made at the Heliport will support our charitable mission and any commercial use of the site will now be helping to save lives.

"Profits will come straight to the Charity so anyone using the Heliport's fantastic facilities, for landing, fuel or other purposes, will do so knowing they are helping to keep our helicopters flying over Wales."

For more information, visit **www.cardiffheliport.com.**



Angela Hughes, CEO
Wales Air Ambulance Charity



Charity Café Wins North Wales Enterprise Award

In November 2018, Caffi HEMS was named as the best social enterprise café in North Wales for 2018.

This prestigious title was awarded by SME News, an outlet for CEOs, leaders and decision-makers in UK-based SMEs. The Best Social Enterprise Award recognises industrious and hardworking businesses and enterprises that have worked arduously to provide the best products and services for their diverse community.

Caffi HEMS, based at Caernarfon Airport, is run by Wales Air Ambulance (WAA) with all profits fed back into the Charity and used to fund its helicopter operation. It is open all year round, with volunteers and staff serving seasonal treats.

Lynne Garlick, WAA North Wales Fundraising Manager, said: "Since the launch of Caffi HEMS in 2015, it has funded the equivalent of over 100 lifesaving missions. Winning this award is a testimony to the hard work of our staff and volunteers who ensure a great experience for our customers."

For more information, visit **www.caffihems.com.**

Children's Wales Air Ambulance Shop Lands in Welsh Capital

In March 2019, Wales Air Ambulance (WAA) officially opened its newest charity shop in the heart of the Welsh capital.

The shop, located on Churchill Way, is the Charity's largest and carries the branding of its specialist neonatal and paediatric division – the Children's Wales Air Ambulance. Every WAA shop is a key source of income that helps the Charity to reach its annual target of £6.5 million to sustain the lifesaving service.

Donna Rogers, WAA Retail Area Manager, said: "This is a really exciting time for us and we are looking forward to welcoming new and existing customers to our new shop in the centre of the capital. The project was a culmination of months of planning and hard work by staff and volunteers alike."



Patient Case Studies

Grant's Story

A Powys man has thanked the Wales Air Ambulance crew who saved his life twice in the space of three weeks.

Grant Withington, from Llandrindod Wells, was airlifted twice during June 2018 following two life-threatening experiences.

On 10 June, Grant was gardening at home when he slipped and suffered a severe injury to his left hand caused by an active chainsaw.

"I had severed part of my left hand and managed to cut through muscle, tendons and some of the bone too. Our local A&E department stemmed the bleeding but realised I needed specialist treatment."

Wales Air Ambulance's Welshpool-based crew was tasked to the scene and flew Grant to the specialist plastic surgeons at Morriston Hospital, Swansea. Following a six-hour operation and several days in hospital, Grant returned home.

However, his air ambulance experience was not over. On 27 June 2018, Grant became unwell and was experiencing a sharp pain in the left side of his face. During a visit to his local surgery, it was clear he was in the early stages of a heart attack.

In order to get Grant to specialists at Morriston Hospital as soon as possible, the Welshpool-based helicopter was called again.

"Living in a rural area, having the air ambulance response was pivotal and saved vital time. The journey to Morriston would have taken two hours by road but Wales Air Ambulance got me to the help I so desperately needed in just sixteen minutes."

After another several days recovering in hospital, Grant said: "My family and I are eternally grateful to Wales Air Ambulance. I frequently see the helicopter flying over our house but never thought for a moment I would ever need their help. We can never thank Wales Air Ambulance enough for what they did. I don't think I would be here today if it were not for their speed, skill, and professionalism."



Anonymised Case Studies

Case 1

During the hours of darkness, and in poor weather, our Caernarfon medics provided an initial response by road to a multiple vehicle road incident in North Wales. Our medics were able to triage numerous patients and provided lifesaving airway and surgical treatments. One patient, in particular, required a blood transfusion on scene from our team. This patient needed urgent treatment at the major trauma centre so was taken to the helipad at the nearest hospital where the Wales Air Ambulance helicopter was re-located. The aircraft transferred the crew and patient to the major trauma centre and the patient went on to have complex surgery for multiple injuries. They were discharged with a full neurological recovery after a 10-week stay in hospital. This illustrates the flexibility of our team's response in poor weather and our ability to deliver hospital-level care to patients in rural areas. Without the involvement of our service, delivery of the early lifesaving treatments may have been delayed significantly. In addition, the patient would have been taken to the local hospital in the first instance and would then have required a secondary transfer by road. This would have depleted the hospital of key staff for several hours and taken longer for the patient to get to specialist care.

Case 2

In response to a baby with breathing difficulties at a District General Hospital in Mid Wales, the Children's Wales Air Ambulance (CWAA) was able to transport the Cymru inter-Hospital Acute Neonatal Transport Service (CHANTS) team from Cardiff to Mid Wales, and then transfer the baby to a specialist health care facility in West Wales. Our dedicated transfer aircraft, equipped with a specialist flight incubator, gave vital support to the CHANTS team and saved them three valuable hours. Prior to the introduction of CWAA, this would have required the CHANTS team to undertake a longer journey by road, or to use one of the Wales Air Ambulance primary helicopters, making it unavailable for other emergencies.

Case 3

A patient in their fifties who had suffered a stroke in South Wales was identified as somebody who required mechanical thrombectomy (removal of a blood clot from blood vessels in the brain) at a specialist health care facility in England. In these cases, the time it takes to receive specialist care is critical to a patient's long-term outcome. For this particular individual, it would have taken 1 hour 30 minutes by road, but by air we were able to undertake the transfer in 30 minutes. The patient went on to make a full recovery following a successful procedure.

Case 4

A young child with complex cardiac history deteriorated in a District General Hospital and required intubation and ventilation after dropping their conscious level. A CT scan revealed a bleed on the child's brain for which they needed urgent neurosurgery. The Twilight Car (see page 11) attended and our medics were able to undertake the transfer. Without our medics, the hospital would have to send their ITU and paediatric consultant, as well as a paediatric nurse, taking them away from their hospital work for 3-4 hours and leaving the site understaffed for senior doctors. The child received excellent stabilisation en route and was delivered quickly and directly to theatre. The operation was successful and the child was able to be taken off the breathing machine later that night – making a good recovery.

The Future

We currently run a 12-hour service (8am-8pm). It is our vision to provide a 24-hour operation in the near future so we can help people both day and night.

With your continued support, we can achieve this together.



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enquiries@walesairambulance.com

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Dafen. SA14 8LQ

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Caernarfon Airport,
Dinas Dinlle,
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