

Airborne

Issue 5

H145 Fleet upgrade

Learn all about our new helicopters arriving in 2023!

Cpt Owen McTeggart
talks automation

Find out about YAA's
Secret Extra Pilot

**Flying in the
face of COVID**

One year on since the
Pandemic began



YORKSHIRE
AIR AMBULANCE

Operational **Stats**

Last **7** months most flown to areas

75
DONCASTER

62
YORK

48
HARROGATE

47
SHEFFIELD

44
WAKEFIELD

Welcome to the **YAA**



Welcome to our fifth newsletter.

After an unexpected start to 2021 back in a general lockdown and not quite knowing how our year will pan out, it seems like we're finally seeing the light at the end of the tunnel. The national vaccination programme is well underway, staff have resumed working at Cayley House, and operations are steadily returning to pre-lockdown figures.

Our fundraising teams are cautiously stepping out back into their regions and enjoying seeing a lot of familiar faces again, and we've been working hard getting events back up and running, in hope that we will return to some relative normality by the end of the summer. We realise we mustn't get complacent, COVID-19 will be around for quite some time yet, if not indefinitely, but the recent easing of measures have been a huge morale booster, not only for our Charity, but the UK as a whole. We will, as we have been doing, continue to work under the government's guidance going forward.

As always, we have been humbled by the generosity of supporters during the pandemic and the recent Hike4Helis project is a great example of this. More than 60 people took part, walking the distance (33 miles) or the return distance (66 miles) between our Nostell and Topcliffe airbases and nearly £9,000 was raised. It was great to see everyone's photographs and our own staff and crew getting into the fundraising spirit too.

As we look towards the future, we are excited to announce we will be replacing and upgrading our Airbus H-145 helicopters with the next generation aircraft by the end of summer 2023. This is an exciting advancement, not only for us, but the people of Yorkshire, enabling us to continue our life-saving service for many more years to come with the best possible helicopters and technology.



Peter Sunderland
Yorkshire Air Ambulance
Chairman

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Helicopter **Update**



We are delighted to confirm that we will be replacing our current Airbus H145 D2 helicopters with the next generation aircraft by the end of summer 2023. We will be the first organisation in the UK to receive the brand new, 5-bladed H145 D3 model.

Our two current YAA helicopters, G-YAAC and G-YOAA, which came into service in 2016, will be replaced by a more advanced and state-of-the-art version of their current model, the Airbus H145. The decision to replace the helicopters is to ensure the people of Yorkshire receive the best operational and medical service from our life-saving Charity.

Steve Waudby, Director of Aviation explains: "Our two current helicopters, G-YAAC and G-YOAA have served us well since 2016 and will continue to do so for another few years. However, the typical effective lifespan of an air ambulance helicopter is somewhere between 7 to 10 years, so we are placing a timely order now for delivery in 2023, whilst taking advantage of early Airbus production line slots, as this helicopter has become very popular within the air ambulance community.

There have also been a lot of advancements made to the H145 since we bought our current aircraft – both technically in the cockpit, and medically with regards to the equipment we carry. We had the choice to look at retrospectively fitting these technological advancements or upgrading to brand-new helicopters that include everything as part of their specification.

Given the complexities of helicopter mechanics, we would have also faced a longer lead time with having everything retrospectively fitted rather than buying new, so it was sensible for the Charity to upgrade the helicopters for new ones."

The first of the two new helicopters is expected to arrive in Yorkshire in Spring 2023, with the second following shortly after in Summer 2023.

Steve added "If we had taken the decision to retrospectively fit all the extra technology and equipment we needed, by the time that had been completed we'd have been at a point where we would have been starting to look at replacing our current helicopters. Bringing our plans forward by a year or two means we get best value, as well as bringing two even better state-of-the-art helicopters to the people of Yorkshire."

Advancements to the new model includes a 5-bladed rotor head which will provide a smoother flight for the crew and patients, on board Wi-Fi to allow patient records to be updated inflight, and a cutting-edge secure communications system which will allow the crew to send patient data ahead to their destination hospital, allowing Doctors and Nurses to start evaluating and assessing the patient before they arrive. There will also be an improved medical fit alongside some of the most advanced and innovative equipment for treating patients at scene and in-flight.

Peter Sunderland, Chairman commented "We are delighted to be able to announce our plans for these new helicopters. The H145 has become the most popular new aircraft globally and we are very much looking forward to welcoming the two new models to Yorkshire in Spring and Summer of 2023. Our current H145 D2 helicopters have served us well, so there was no question about considering other makes or models – it is fast becoming the air-ambulance helicopter of choice within the air ambulance sector."

Peter continues: "We have been financially planning for these replacements since G-YAAC and G-YOAA commenced their operations in 2016 and with prudent, planned savings, careful budgeting, and building our reserves we are now in a position to move forward. This has only been made possible through the generosity of individuals, groups, businesses and organisations whose support is so gratefully received. Our aim has always been to provide the people of Yorkshire and its visitors with the best possible air ambulance service, and by upgrading our helicopters in 2023 we can continue to ensure we are futureproofing and modernising our operations and service delivery."

The new helicopters, complete with full medical fit out, will cost approximately £15.3M which is being funded through careful financial planning and reserves. Current aircraft will be sold to offset some of these costs.

Gary Clark, Head of Civil Business, Airbus Helicopters in the UK added: "We greatly appreciate this show of confidence from Yorkshire Air Ambulance in once again selecting the H145 to replace its current helicopter fleet.

The new version of the H145 with its five-blade, bearingless rotor gives an even smoother ride and 150kg greater useful load, plus the potential for longer endurance without refuelling - all important factors in helping air ambulance operators do their vital work more efficiently than ever.

We wish YAA well in their daily operations."



**For more updates please visit:
www.yaa.org.uk**

Hike4Helis *Update*



Throughout April, we challenged our supporters to hike 33 miles, the distance in air miles between our YAA Nostell and Topcliffe airbases, or the return journey of 66 miles to raise valuable funds for our service.

More than 60 people took part in the challenge, from crew to former patients and supporters looking to give back to the Charity and we're delighted to reveal that **£8,866.00**, equivalent to more than half a days running costs was raised.

Scott Hutchinson from Leeds, said: "I raised money for Yorkshire Air Ambulance because back in 2013 they saved my Uncle's life when he fell through a roof and broke his neck and fractured his skull. They provided lifesaving treatment and transported him to hospital quickly which made his recovery possible."

Gemma, one of our Paramedics also took part by walking 33 miles around Yorkshire Air Ambulance's Nostell helipad during her shifts.

Gemma said: "It has been great fun taking part in Hike4Helis and the money is absolutely needed right now. As lockdown restrictions have eased, we're getting busier and busier and people are having more accidents. Thank you to everyone who has helped out and raised money for YAA."

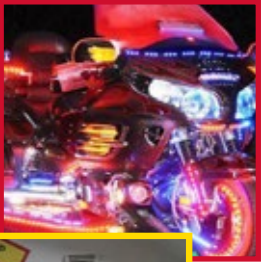
Vickie Bowden, West Regional Fundraiser, said: "YAA relies entirely on the generosity of individuals and organisations to keep both of our helicopters in the air and after a year of cancelled events due to the pandemic, we've been looking at new and innovative ways to encourage people to support the Charity and help us raise vital funds."



We are overwhelmed by the support we have received for Hike4Helis, especially after the difficult year our Charity has faced due to COVID-19. We would like to thank everyone who got involved and hiked for our helis throughout April."

It costs £12,000 a day to keep both of our air ambulances maintained and in the air and the £9,000 raised will help tremendously towards the vital funding of our service

Fundraising *News*



Growing YAA events calendar

Our events calendar is beginning to get back on track and we're very excited about getting back out in the community this summer and meeting all of our supporters. A few of our bigger events include the Yorkshire Balloon Fiesta taking place between Friday 27th and Monday 30th August and Oliver's Mount on Saturday 11th September. Make sure to keep an eye on our events pages for more details.

Reopening of St Johns Centre pop-up shop

Our fundraising team and volunteers are back at the St John's Centre YAA pop up shop in Leeds. Pop by to learn more about YAA and have a chat about how you can get involved. For opening times, keep an eye on our Facebook page.

Hunt out some bargains at Scarborough Market

We're also delighted to announce that following the easing of lockdown measures, our Scarborough Market Charity shop is now open again. Discover some bargains and have a chat with some of our volunteers.

YAA Skydive

A big thank you to the brave volunteers who took part in the first of our annual skydives in May. It was a miserable day

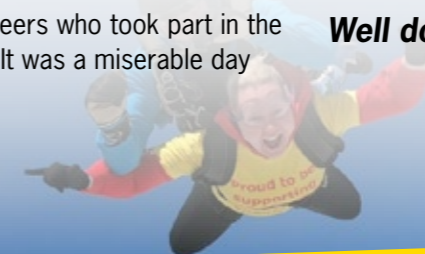
weather-wise, but the adrenaline rush from jumping out of a plane certainly put a smile on a few people's faces. Sadly, not everyone was able to take part due to the weather, but they have been rebooked for later in the year. To find out more about our skydives, take a look at our events page on Pg 17 – 18.

Well done Rob, Keiron and Keith

Well done to Rob Scott our East Yorkshire Regional Fundraiser, Kieron Hardwick our East Community Fundraiser and Keith Blower one of our East volunteers, who were presented with The Mayor of The Borough of Scarborough's Commendation award for their exceptional service and selfless commitment to the people of Hunmanby during the pandemic. The team made deliveries to those in the community who may not have had access to the internet to place orders online and were not able to get to the shops, ensuring that they had access to groceries and other essentials.

The team were nominated for the award by Bob, Alison and Sophie from the Todays Local shop and the people of Hunmanby and surrounding villages.

Well done, we're all very proud of you!



Flying in the face of Covid



After a tough twelve months, we have been reflecting on how our operations were impacted after a turbulent and unsettled year for the nation dealing with the impact of COVID-19.

Like many charities across the UK, the recent pandemic brought many new challenges to us and the Charity had had to adjust to a new way of working, flying in the face of COVID 19.

Between 1st April 2020 and 31st March 2021, we responded to 1,365 incidents across Yorkshire, treated 922 patients and 123 patients were flown to hospital. A 10% decrease in operations from the previous year, much of which can be attributed to operational changes due to the pandemic.

Over a year ago now, at the beginning of April 2020 and during the height of the first lockdown, we, along with Yorkshire Ambulance Service NHS Trust (YAS) took the difficult decision to temporarily redeploy all of our Critical Care Paramedics on to frontline ambulance duties to support their colleagues and add additional resilience.

The impact on the operations of our Charity was significant and resulted in an 88% decrease in incidents attended for the month of April (16 incidents in 2020 vs 132 in 2019) whilst the aircraft was offline for those three weeks their crews were redeployed to support the Yorkshire & Humber Nightingale Hospital.

This trend followed throughout the year with April (16), November (72) and December (78) being our operationally quietest months as the nation obeyed the governments stay at home message and locked down once more.

After the three week deployment back to the frontline, our crew then returned to their duties. However, as lockdown measures were steadily eased and we became operational again, incidents quickly rose by 20% with August being the busiest month of 2020 with 165 incidents responded to – an average of five incidents a day. This was closely followed by 142 incidents in July.

To ensure crew safety and minimise any risk of COVID transmission, our helicopters were adapted with safety measures, including Perspex screens to separate the cockpit from the cabin. During this period, our Rapid Response Vehicles became another crucial way of delivering vital care to patients, ensuring the Critical Care Team with their specialist skills could attend an incident. This led to an increase 58% of incidents responded to by road (141 in 2019 vs 223 in 2020).

As more people continued to work from home, road traffic incidents dropped by 10% accounting for only 130 incidents out of 1,365, compared to 254 out 1,523 in the previous year. Falls from height, which also includes climbing and falls during leisurely pursuits such as walking, was the most common incident of the year, followed closely by cardiac arrests (111) which dropped by over a third (36% compared to the previous year (174).

Farming incidents, which also includes incidents where walkers are attacked by cattle increased by 60% (16 in 2020 vs 10 in 2019) attributed to more people out and about enjoying their local countryside. Positively however, mental health related incidents dropped by 55% (40 in 2019 and 18 in 2020). Stabbing and gunshot incidents accounted for 3% of the incidents we attended last year.

Men (610) were almost three times as likely to be involved in an incident responded to by us compared to women (233) and the patient group most frequently treated by our crews were the 40-65 age group.

North Yorkshire, one of the most popular tourist spots in the region topped the records for the most falls in the region (24), South Yorkshire had the most D.I.Y injuries (8) and West (38) and East (31) Yorkshire experienced the most cardiac arrests.

Mondays were the busiest day for incidents throughout the year with 223 incidents, a rise of more than 10% (13%) compared to 2019 and Thursdays were the quietest days. Weekend incidents also rose by 10% in 2020 (393) compared to the previous year (357), where incidents were more dispersed throughout the week.

Matt Syrat, Clinical Operations Manager, commented: *"The pandemic had a direct impact on the care we were able to deliver by air but it's important to realise that the brief time away was spent helping the frontline battle of the first wave of infections, preparing us, mentally, physically and clinically, for the return to air operations. It has been an incredibly difficult 12 months but the resilience and professionalism our staff have shown has made me proud to be part of such an amazing team."*



Our new *welcome and meeting* area

Patient Story

Tara Parkes

On 28th September 2020, Tara Parkes from Penistone, South Yorkshire was putting her pitch fork away after doing some gardening, when she tripped over the threshold of her shed and the fork impaled her abdomen.



"I hate gardening. Our garden shed was disintegrating and the plan that afternoon was to clear everything out and then take the shed down. Unfortunately I didn't get that far. I tripped and fell forwards, impaling myself on the big gardening fork I was carrying", said Tara.

"The pain was horrendous. I thought I was going to die and that my children would find me dead in the shed. I knew I had to get help. Somehow I found the strength to free the handle which got caught in a wheelbarrow wheel as I fell and get help".

Luckily for Tara, her mobile phone was in her pocket and she was able to dial 999 herself. The local emergency services were dispatched and Yorkshire Air Ambulance sent our Nostell helicopter to the scene.

Our Paramedics assessed Tara whilst the four prong garden fork was still in her abdomen. Freeing the fork prior to the hospital could have caused catastrophic damage to Tara's internal organs.

They inserted an IV line into her bone to administer vital pain relief and the fire service were on standby in case the fork needed to be cut down to manoeuvre her.

Due to the size of the impaled fork, Tara was unable to be flown to hospital. She was taken to Sheffield Northern General, the hospital where Tara works as a nurse, by land ambulance with one of our Critical Care Paramedic's accompanying her on the journey in case she deteriorated.

Tara was rushed straight into emergency surgery to remove the fork and she spent a week in hospital. Luckily, scar tissue in her abdomen from a previous surgery created a barrier and prevented the fork penetrating any of her internal organs.

Tara still owns the gardening fork. When the surgeons removed the fork from Tara's abdomen, they wrapped it in plastic (to prevent others from injuring themselves) and gave it back to her, but she is adamant that she won't make the same mistake again. *"I will keep the fork facing down in future",* she said.

Speaking of the Yorkshire Air Ambulance, Tara continued: *"They are an amazing service and a lot of people wouldn't have such happy outcomes if it wasn't for them".*

While our operational bases remain closed to visits, we have been busy behind the scenes making some enhancements to our Nostell Airbase, to make the unit more functional. So last year, and throughout lockdown we added an new area to the front of the unit to create a new reception area incorporating an inviting social hub and welcome area for future visitors and guests.

Visitors now have a dedicated welcome space and can learn more about the Charity from the variety of posters and infographics displayed around the room. It is also a hot desking area and informal meeting area for crew. The room is branded with signature red and yellow YAA colours and features a display screen to highlight the important work of the charity.



Read our patient stories here:

<https://www.yorkshireairambulance.org.uk/news-patient-stories/patient-stories/>

Automation, **YAA's** Secret Extra Pilot



Our Chief Pilot Owen McTeggart talks us through automation, the YAA's secret extra pilot:

"YAA's helicopters (G-YAAC and G-YOAA) have hidden co-pilots that are always working in the background to free up capacity of our real life YAA pilots. So, you'll have to make do with myself or one of our other fantastic HEMS pilots taking you to hospital if required for now.

Auto-pilot I hear you cry! Well, it's much more complicated than that. From the moment that the pilot switches on the aircraft battery, little computers are talking to each other while monitoring and checking that all the systems are working as they should be. And as with all things aviation, everything is doubled up for assurance, in the event of a failure of one of the systems.

We have three multi-function displays, all three talk to each other to ensure they are working correctly and that they all have the correct terrain mapping, etc. to give warnings to the pilot once airborne.

There is an automated system for controlling each engine, and before it lets the pilot start the engine it checks that all the monitoring systems and engine controls are functioning correctly.

When the pilot is told that all is well and the engines are started, these systems and controls ensure the engine goes from ambient temperature to an operating temperature of about 700°C without getting so hot that the internal blades of the small jet engine might melt. Once operating at normal parameters, these system protections stop the limits being exceeded by an over-worked pilot during key stages of flight.

Once airborne and routing to the scene of an incident that our air desk has sent us to, the pilot will engage all available modes of the auto-pilot. There are several options for this, but in most cases we will give the aircraft a height, speed and navigation point to fly us to, all with the press of a button or two.

While these three things are being controlled by the auto-pilot, other systems are checking our height versus terrain and obstacle (masts, pylons and wind farms) data bases. Giving the pilot visual and audio warnings, and in the correct configuration it will even initiate a climb to clear the hill in question.

YAA's helicopters (G-YAAC and G-YOAA) have hidden co-pilots that are always working in the background to free up capacity of our real life YAA pilots.

A radio sourced collision avoidance device is also looking out for other aircraft, which will display these potential conflicts and will also warn the pilot if it feels that the other aircraft is going to encroach our safety bubble.

The engine monitor system is working hard at this point. We want to get to the injured person as quickly as possible if turbulence makes the aircraft descend, the auto-pilot will initiate a climb, but the engine protection will request the aircraft slows down slightly while climbing to ensure the engine maximum parameters are not exceeded.

From the scene of the incident to hospital, the safest thing to do might be to climb into cloud and approach to an airfield before continuing to the hospital. In this case we have predetermined routes in our twin GPSs (double for redundancy) that once activated will fly the helicopter safely to the airport, changing altitude when required and will settle less than 30m above the runway. All this with the pilot only needing to select the route required and pressing enter!

If all hasn't gone to plan and the pilot still cannot see the runway from 30m, a couple of button pushes will bring the helicopter to the hover above the runway with the pilot reducing the selected altitude until the skids gently make contact with the tarmac. This is way below our permitted weather limits, but it is nice to know that the function is there if required.

Now why do we need the pilot and how far are we away from a pilotless helicopter? Well, Air Ambulance/HEMS taskings are much more complicated than routing from one airport to another. So once above scene, the pilot will take full control of the flying, maintain a safe distance from all obstacles while looking out for issues that might arise from us being in the area (horse getting spooked while a rider is in the saddle, farmer in a field of cows, motorists/cyclist/pedestrians on the road that we might wish to land on, etc.

All this is a lot more complicated than just maintaining a speed/height/heading. Especially at night!

There are also the 'What-ifs'. There are lots of systems to help the pilot while flying, but with this comes complications when things go wrong. The pilot has the ability to take the controls at any time, but then needs to fault find while flying the helicopter. Knowing the systems is half the battle, as we can't normally do the IT Crowd 'have you tried switching it off and on again' bit while flying (although this does solve most issue before we start the engines).

So our pilots are helped massively while starting and flying the helicopter, which enables them to look out for other dangers. But they need all their skill set when selecting somewhere to land and then getting the helicopter with crew on the ground safely, and need to know the system inside out if one of the many mini computers stop talking to others momentarily. Helicopters are now safer than ever due to these little assistants working in the background, but we are a long way off having a fully automated YAA helicopter. So, you'll have to make do with myself or one of our other fantastic HEMS pilots taking you to a hospital if required for now."



The *Danger* of Hoax calls



Hoax phone calls are a growing problem for many emergency services, and YAA were victim to 14 hoax phone calls in the last financial year.

Between April 1st 2020 and 31st March 2021, we responded to 15 hoax calls, and in 2021 so far (January 1st to August 6th 2021) the Charity has responded to 15.

The call outs were mainly in West (10) and South Yorkshire (4) and October 2020 and January 2021 were the busiest months for hoax call outs with three per month.

Matt Syrat, Clinical Operations Manager commented "There is no way of knowing if a 999 call is a hoax when it comes in. We have to treat every call as if it is an emergency situation and respond rapidly."



When a call comes in there are no significant indicators that it might be a hoax as the caller is asked a series of questions about the emergency by the 999 call handler – that doesn't become apparent until emergency responders arrive at the scene to find no emergency."

Matt added "There is nothing more frustrating for our crews than landing at a scene and establishing that the call was in fact a hoax. Not only has it wasted our time and put ours and the public's lives at risk, but there will always be other emergency services involved too – the ambulance service, police and even the fire service depending on the alleged nature of the hoax.

Committing all these emergency services to one hoax call could risk us not reaching a real emergency fast enough and puts other lives at risk.

Then there is the cost of calling everyone out and tying up all of our resources. None of us can comprehend why someone would want to do this to the emergency services."

Matt concluded "We would urge people to never even contemplate making a 999 hoax call as it could have devastating consequences.

Every time our aircraft is dispatched to a hoax incident, it prevents us from attending genuine emergencies where our care could be the difference between life and death for someone's loved one."

Four hoax calls were responded to by our Rapid Response Vehicles (RRV's) and 10 incidents involved the aircraft being dispatched.





Behind the scenes at our Nostell airbase, during their spare time, our HEMS Paramedics and Doctors have been trialling new medical devices and learning new techniques to enhance their skillset. Two new additions to our training suite and plethora of medical devices includes a Corpuls CPR device and the Warrior Lite blood warmer.

Matt said: "The Corpuls CPR device allows the HEMS team to deliver safe and continuous chest compressions to patients who have suffered a cardiac arrest. The device is compact, manoeuvrable and is simple to deploy which enables our clinicians to focus on delivering other lifesaving interventions concurrently. My thanks go to the donors who made the purchase of these potentially life changing devices possible."

Corpuls

Corpuls CPR is an automated chest compression device that helps our crew perform non-interrupted, hands off CPR for as long as possible without getting fatigued. The device is operated by a remote control and can adjust the compression depth and frequency. The device can be used on both adults and children. The Corpuls was kindly funded by an anonymous donor, The Grace Trust in Cambridge, Jack Brunton Charitable Trust from Stokesley and the Community Foundation for Calderdale/Myra Townley Estate Charity, Halifax.

Warrior Lite

The Warrior Lite is a portable machine for keeping blood and IV (intravenous) lines warm. It can adapt to a variety of temperatures, which is incredibly important with Yorkshire's ever changing weather conditions and its design is space saving and light for transporting in our aircraft.

Matt, continued: "The Warrior Lite blood warming devices enable the team to deliver blood to the patient quickly and at the appropriate temperature, giving the patient the 'best chance at improvement' from potentially life changing conditions."



SEPT 2021

Sunday 5th SEPT

Run for All - Leeds 10K

A hugely popular, inclusive and superbly supported race for participants of all abilities. The route takes in many of the city's historic landmarks. A fantastic atmosphere and friendly volunteers make the event unforgettable for all. Click here for more info: <https://bit.ly/38TXupw>

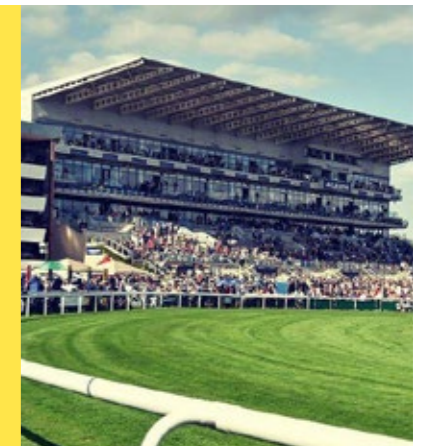


SEPT 2021

Friday 10th SEPT

St Leger

Join us in September for one of the most anticipated dates in the YAA calendar, the St Leger race day at Doncaster Races. Located in an executive marquee in the centre of the racecourse, guests will enjoy a fabulous day of racing, good food and great company. Please email k.collinson@yaa.org.uk to book your places or for more info. <https://www.yorkshire-airambulance.org.uk/get-involved/events/corporate-events/st-leger-festival-2021/>



SEPT 2021

Sunday 18th SEPT

Skydive

Join us in Bridlington for the last date of the year! Experience the thrill of jumping from 10,000 feet and free-falling at over 120mph. Apply now for your place: <https://bit.ly/3956cRJ>



**OCT
2021**

Monday 25th Oct

21st Birthday Balloon race

Help us celebrate our 21st birthday by taking part in our virtual balloon race.

Balloons will be available to buy on our website for £3, with prizes for the 3 balloons that travel the furthest!



**OCT
2021**

All Month

Business 21st Birthday Accumulator Challenge!

Starting with a £21 investment, you have a month to make as much money as possible.

How much could you make? Could you challenge different teams in your office?



**OCT
2021**

Monday 25th Oct

YAA 21st Birthday

Could you and your workplace or local community group help us celebrate our 21st birthday by hosting a mini birthday party or celebration?



Patient Story

Algy Kazlauciusas

On 4th September 2020, Algy Kazlauciusas was cycling in Nidderdale, North Yorkshire when his bike wheel skidded on an oil slick in the middle of the road and his body was thrown on to a grass verge.

"It was one of the most unfortunate things that has happened in my life. An old truck had disposed of oil on the road and I hit the oil and that was it, I had no chance. I immediately realised that I couldn't move and that no-one was there to help me", said Algy.

Luckily, two cyclists that were not far behind him stopped to offer assistance. Struggling to work out their exact location, one of the cyclists, luckily had the What3Words app installed on their phone. The What3Words app can pinpoint a location within a three-metre square radius by giving the user a unique three-word code. It can save crucial minutes when searching for casualties at the roadside.

Whilst calling 999, Peter Jackson, one of the cyclists, quoted the What3Words reference 'INFLATION, SURFER, INNER' which led the emergency services straight to Algy's location. Due to the severity of his injury, we also dispatched our Topcliffe aircraft.

Speaking of the air ambulance's arrival, Algy said: *"I remember the helicopter arriving and landing in the field and I wasn't on the ground for too long before they took me to hospital. I was impressed by the people who stopped and were so helpful with everything. It was a real joy in terms of humanity."*

Algy was flown to Harrogate Hospital, where tests revealed that he had fractured his femur. He endured a long operation to pin his leg back together and have a rod inserted, and spent four days in the hospital recuperating before being sent home.

Unfortunately, Algy hasn't been able to get back on his bike just yet, but he's planning to cycle again once the weather is warmer.

"I've been cycling in the garage for the last three months and I nearly went out for the first time one day, but I couldn't do it. As soon as the weather is decent, I'll be back on my bike again", said Algy.

Algy, who wasn't wearing a cycling helmet at the time of his incident, said: *"Since the accident, I have realised what a dangerous situation it is to be cycling without a helmet. I will definitely be wearing one in future."*

Matt Syrat, Clinical Operations Manager, said: *"There's a lot of rural areas and less identifiable roads in Yorkshire and if a person cannot distinguish where they are, it can delay the time it takes for emergency services to reach the incident. What3Words enables us to pinpoint a nearly exact location of the casualty using the three words given to us by the call taker and we can dispatch immediately. The What3Words app is invaluable to saving lives, especially in remote areas of Yorkshire."*



To join one of these fantastic events, follow the weblink for each event to register directly.
Alternatively email info@yaa.org.uk

Read our patient stories here:

<https://www.yorkshireairambulance.org.uk/news-patient-stories/patient-stories/>

Prehospital Anaesthesia

Dr Neil Sambridge



Prehospital anaesthesia is a common medical intervention performed by the YAA Critical Care Team during a traumatic incident. In fact, last year alone 6% of patients treated by our crew required prehospital anaesthesia, commonly known as an 'RSI' (Rapid sequence induction).

Dr Neil Sambridge, who has worked as a doctor at Yorkshire Air Ambulance since 2016 talks us through the situations where prehospital anaesthesia would be used and why.

What is prehospital anaesthesia?

General anaesthesia is a state of controlled unconsciousness during which you feel nothing. You will have no memory of what happens while you are anaesthetised. Prehospital anaesthesia is the process we use outside of hospital and is very similar to general anaesthesia you receive in hospital for an operation. Two hypothetical situations of when prehospital anaesthesia would be used are:

Head Injury

A man has fallen off a roof and injured his head. He is not fully awake and appears confused. The dispatch paramedic tasks the Yorkshire Air Ambulance with a doctor-paramedic team. On arrival the team assess the patient and determine that he has an injury to his brain, and he needs prehospital anaesthesia for his ongoing medical care.

After anaesthesia the patient is transported to the nearest major trauma centre who have expertise in the hospital care of a patient with a brain injury.

Cardiac arrest and return of pulse

A lady has collapsed in a shop. A member of the public recognises she is in cardiac arrest (no pulse and not breathing normally). An automated external defibrillator (AED) is used to restart her heart, but she remains not fully awake and not breathing normally.

The doctor-paramedic team assess the patient and determine that she needs a prehospital anaesthetic to support her breathing and brain during the recovery period after a cardiac arrest. After anaesthesia the patient is transported to the nearest hospital with expertise in the care of patients after cardiac arrest resulting from a heart attack.

Why do we use prehospital anaesthesia?

The state of controlled unconsciousness (sometimes described as "putting you to sleep") allows the team to look after and protect a number of vital body functions. After prehospital anaesthesia we can control and help the following body systems.

Breathing

We are able to breathe for you with a ventilator and control the amount of oxygen you receive. Air contains 21% oxygen, and we can give you 100% oxygen with a ventilator. We can also control the level of carbon dioxide (see below about the brain).

Patients who are critically unwell are sometimes not able to breathe properly or adequately and have low oxygen levels and high carbon dioxide levels.

Brain

Our brain can be affected by illness or injury. Prehospital anaesthesia and controlled unconsciousness allows the team to help protect the brain from further damage. We can control the carbon dioxide level in the brain by adjusting the way in which we breathe for the patient. High carbon dioxide levels can cause a rise in pressure in the brain and hence cause further brain injury.

Prehospital anaesthesia and controlled unconsciousness can also help stop or prevent fits occurring as a result of brain injury or illness. Some patients with a brain injury or illness can be restless and uncooperative as a result of their disordered brain functioning. Prehospital anaesthesia and the state of controlled unconsciousness allows us to safely transport the patient without a risk of harm to the patient or the team.

Pain

Prehospital anaesthesia means that our patients feel no pain once they are asleep. This is good for our patients and also allows us to carry out other interventions which would be painful if the patient was awake.

How we do it

The process of prehospital anaesthesia has a number of stages. Firstly the team will assess the patient and balance the benefits and risks before undertaking the procedures. Secondly all the equipment is carefully prepared and checked before commencing the procedure and the other members of the emergency services are briefed and sometimes given specific roles to help.

Procedure

Additional oxygen is given to the patient via a mask over the nose and mouth. A small plastic tube is inserted into a vein to allow drugs to be given rapidly. Three drugs are commonly used in the process: a rapid acting very strong pain killer (fentanyl); a drug which causes the state of controlled unconsciousness (ketamine); and a drug which stops muscles from working, also called a relaxant (rocuronium).

After these drugs are given a tube is inserted into the windpipe (trachea) and connected to a ventilator so we can breathe for the patient. The team monitors the heart, oxygen and carbon dioxide levels throughout the procedure. We give additional drugs after the prehospital anaesthetic to continue the state of controlled unconsciousness during transfer to hospital.

Prehospital anaesthesia is a complex medical intervention which can bring significant benefits to our seriously ill and injured patients in Yorkshire.

We are grateful to the people of Yorkshire for their support to enable the Yorkshire Air Ambulance to safely deliver this potentially lifesaving intervention.



Dr Neil Sambridge

Kids Puzzles

Looking for something to do with the kids, or a few puzzles to solve with your Friday night treat? Then look no further than our brand new YAA puzzle page. Have fun with the whole family, whilst learning about the vital work of YAA.

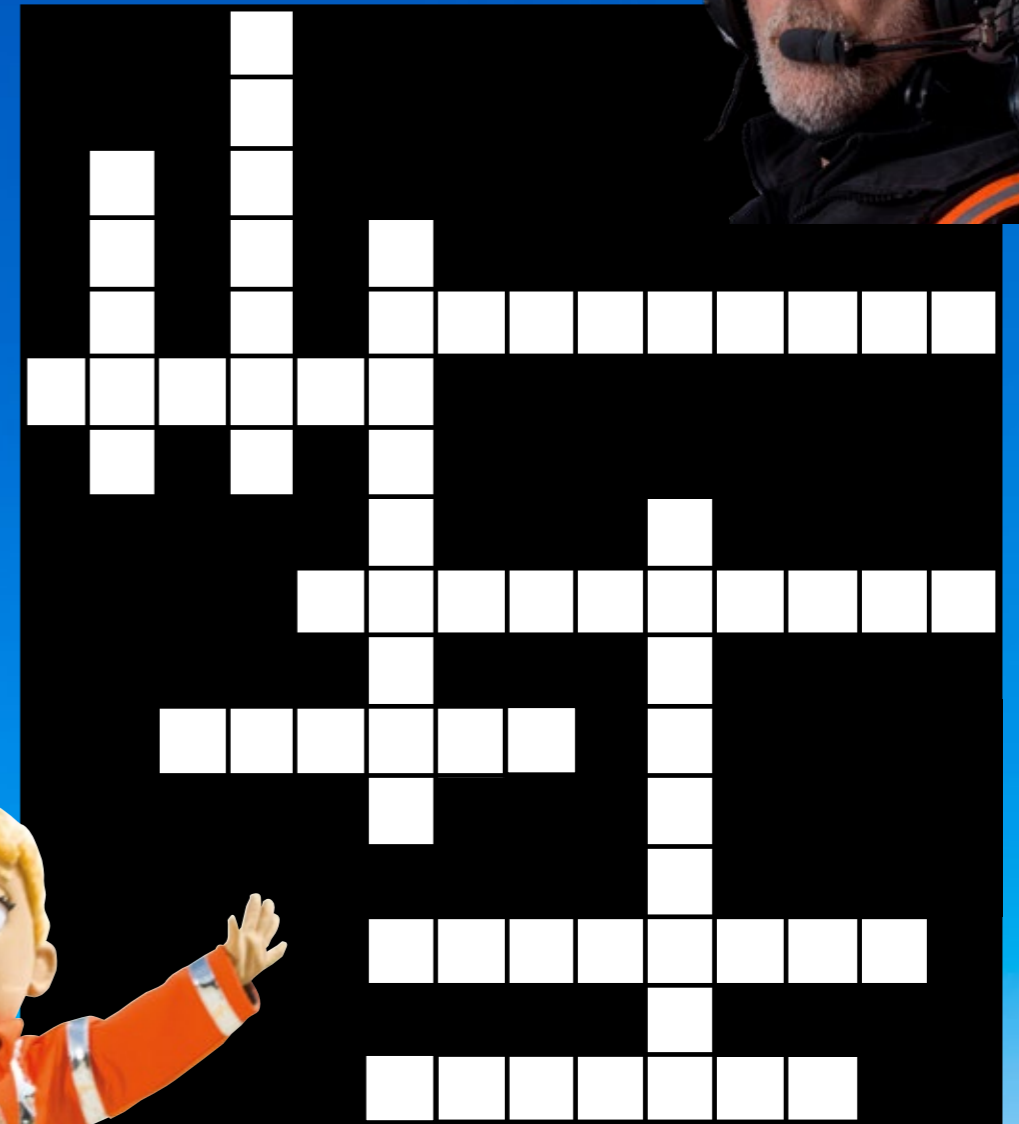


Word Bank

Can you fit these YAA related words in the word grid

- Ambulance
- Helicopter
- Patient
- Pilot
- Flying
- Hospital
- Paramedic
- Charity
- Yorkshire
- Doctor

YAA CROSSWORD




Word Scramble


Can you unscramble these YAA related words

HELICOPTER	PARAMEDIC
AMBULANCE	CHARITY
PATIENT	YORKSHIRE
PILOT	DOCTOR
FLYING	FUNDRAISING
HOSPITAL	MISSION

1. CRHIETELPO _____
2. INMISOS _____
3. DAIISGNUFNR _____
4. TIPOL _____
5. KERYRHOSI _____
6. SOTLHAIP _____
7. GNIFYL _____
8. LABENUCMA _____
9. ROOTDC _____
10. ITTNAPE _____
11. CAPDAERIM _____
12. HTYCIAR _____



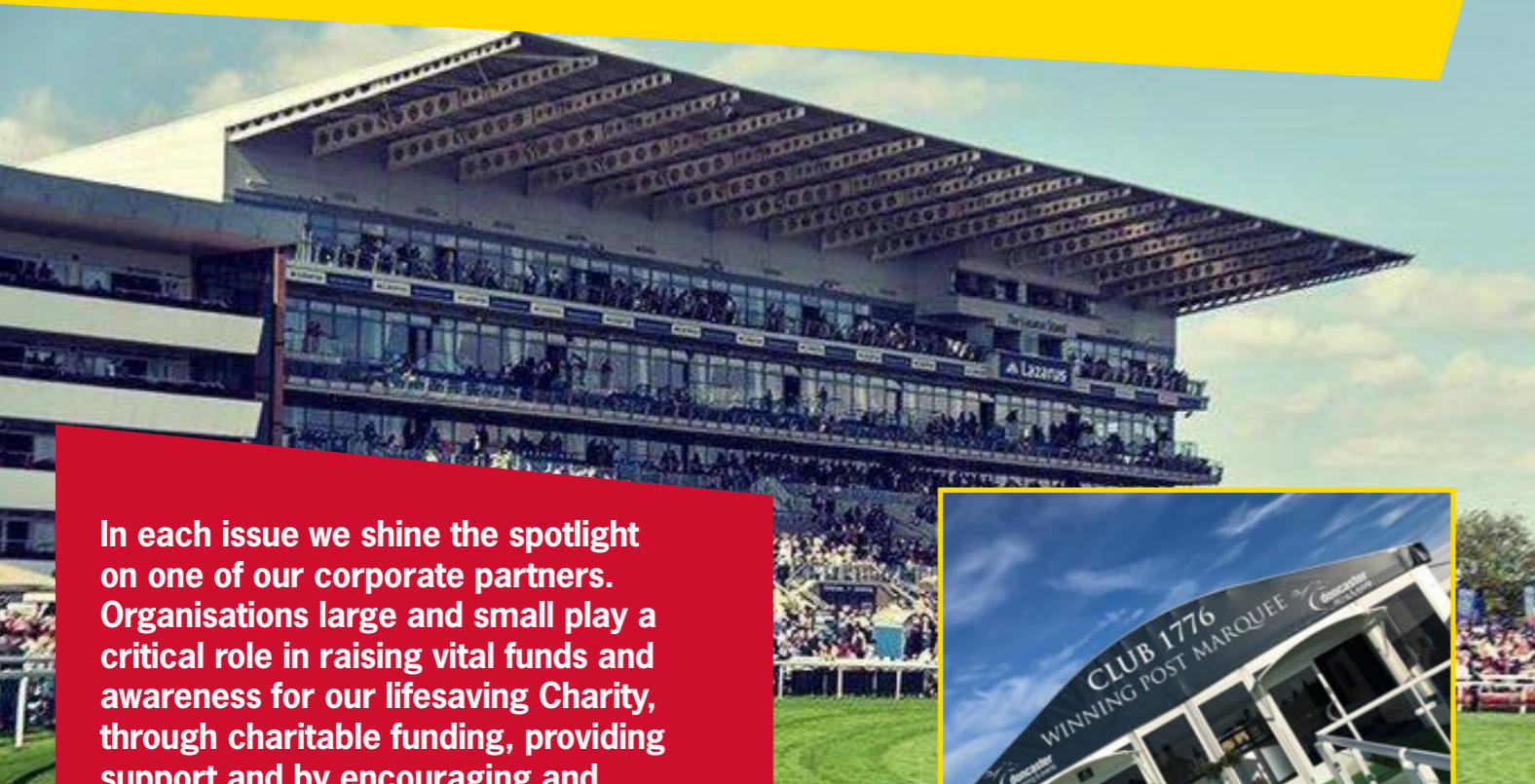
Help Percy!



Help Percy Pilot find his way back to Henry Helicopter



Corporate in the spotlight Doncaster Racecourse



In each issue we shine the spotlight on one of our corporate partners. Organisations large and small play a critical role in raising vital funds and awareness for our lifesaving Charity, through charitable funding, providing support and by encouraging and inspiring people across Yorkshire to get involved.

We are very proud of our strong partnerships with the local business community and we very much value the support each and every business gives to the Charity. The Yorkshire Air Ambulance St Leger fundraising event, in partnership with Doncaster Racecourse is one of the YAA's most anticipated charity events of the year. Since 2010, the YAA's partnership working with Doncaster Racecourse has helped to raise in excess of £120,000 for the rapid response charity.

Income from the St Leger Day is generated through ticket sales, of which Doncaster Racecourse kindly donate a third back to the Charity, bucket collections on the day from general racegoers and various activities in the marquee such as auctions and raffles.

In 2018, HSBC helped boost the St Leger Day income total by match funding what was made on the day and their staff also helped with the bucket collection.

This year's St Leger Day will be held on September 10th and located in the exclusive restaurant within the 'Club 1776 Winning Post Marquee' in the centre of the racecourse.

For tickets and more information please contact Katie Collinson on k.collinson@yaa.org.uk or head to: <https://www.yorkshireairambulance.org.uk/get-involved/events/corporate-events/st-leger-festival-2021/>



Our exclusive 2021 package includes:

- Reserved Car Parking (if required)
- Admission badges and tickets
- Drinks reception on arrival
- Three course lunch
- Afternoon tea
- Race card and gift
- Unlimited beers, wines, ciders or soft drinks throughout the day.

Katie Collinson, Corporate and Partnerships Manager, said: "Our St Leger day is a well-established event in the YAA calendar and provides us with sustainable income year on year. It is one that many of our supporters look forward to and we're sad that due to COVID-19 the 10th anniversary St Leger event didn't go ahead last year.

We're looking forward to bringing our St Leger Day back this September and being reunited with many of our supporters and to be working alongside Doncaster Racecourse again."

Fundraising *Shout Outs*



Fit to Bust Harrogate

Thank you to Fit To Bust Too of Harrogate, who stocked and sold our Anita Bowerman Yorkshire Shepherdess YAA Christmas cards. Our Community Fundraiser Clare Deacon had the pleasure of visiting them when they presented us with a cheque for £350.

Bronte Christmas Tractor Run

The Bronte Christmas Tractor Run has been a firm favourite in the Yorkshire Air Ambulance calendar and we'd like to pay tribute to a very special and emotional 20th anniversary run in 2020, which was dedicated to the memory of Stanley Turner, who started the event 20 years ago. Stanley decided to raise funds for the YAA after the crew went to the aid of a friend who had collapsed, and battled in vain to save him. To date, over £40,000 has been raised for the YAA!

Just over 100 vehicles took part in the run, which set off from Keighley and followed a route of around 32 miles – taking in local villages and finishing in Haworth. Over £2000 was raised and the response and support from the community was humbling. We would like to say a huge 'thank you' to all involved and who work so tirelessly to make this very special event happen and everybody who turned-up and all those who donated. Stanley would have been so proud.



Van Chaud £400

Thank you to Jen and Issy Van Chaud who, as they were unable to attend events with their converted 1969 citoren van, invited the people of Topcliffe to visit them on their driveway and sample coffee and crepes whilst making a donation to YAA, raising a fantastic £400.



Morrisons Brampton

We would like to say a big YAA Thank You to Morrisons Brampton, their staff and customers, who donated to Yorkshire Air Ambulance in memory of Mandy Selby, who worked at the store.

The collection raised a fantastic £510 and this was presented to us by some of Mandy's colleagues.

Fundraising *Shout Outs*



Lloyds Bank Hull

Thank you to the team at Lloyds Bank, Ings Road, Hull who have raised £512 for Yorkshire Air Ambulance through various fun events and a raffle, held during the day of the Captain Tom 100 Challenge.



Beverley Civic Society

We would like to say a massive thank you to Beverley Civic Society and all involved for their £1,600 donation to the Yorkshire Air Ambulance, which was generated through the sale of their 2020 calendars showing the deserted streets of Beverley during lockdown.



Garforth Fire Station helicopter drop

Thank you to Garforth Fire Station who held a paper helicopter drop from their tower at the station and raised an incredible £215. Prizes were given to the five helicopters that landed on our YAA banner.



Topcliffe Air Support Unit

A big thank you to the 4th Regiment Royal Artillery in Alanbrooke Barracks Topcliffe, for their continued support over the years, such as lending us hangar space when ours has been unavailable.



Business *Shout Outs*

Thank you to D. M. Keith

Thank you to D. M. Keith who have been providing vehicles to Yorkshire Air Ambulance for almost 15 years and this year have provided us with two ŠKODA Octavia Hatch SE First Edition and two ŠKODA Octavia Estate SE First Edition vehicles.

Kerry Dwyer, YAA Director of Fundraising - West & South Yorkshire, said 'We are so grateful to D. M. Keith for continuing to support the Charity. We are extremely proud to be driving the cars and working in partnership with them each year. The use of the cars enables us to continue to fundraise now that the government restrictions are easing. The cost savings are hugely beneficial to us after the year we have had.'



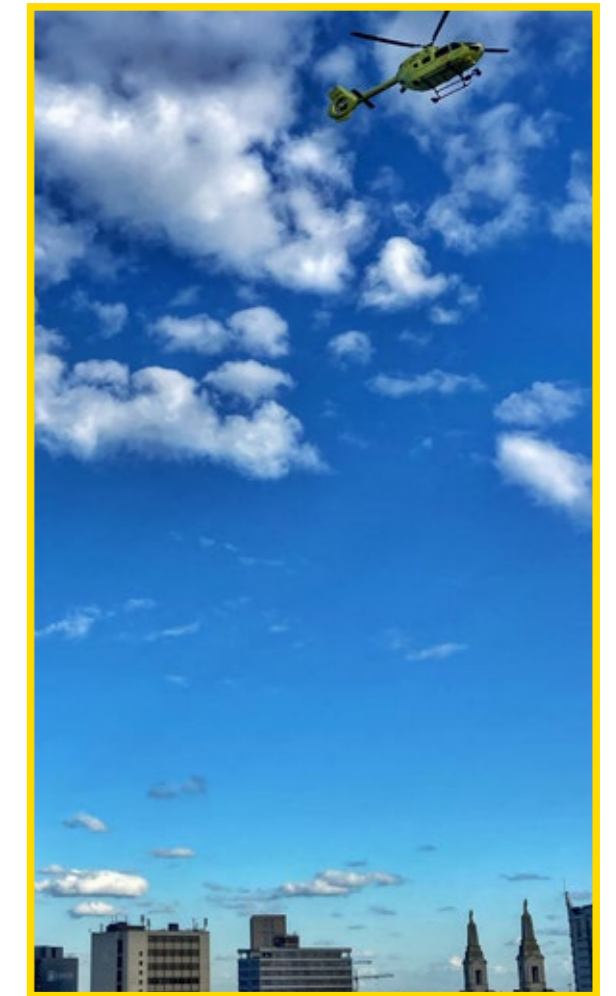
Luscombe's Car Dealership

Thank you to Luscombe's car dealership in Leeds, who after noticing another company had used their copyrighted photos on their own website, suggested that rather taking the issue any further the company in question make a £500 donation to Yorkshire Air Ambulance, which they went on to do.

Cygnnet Health sponsored walk

Thank you to Ulyatt and staff at Cygnnet Health in Sheffield. They have raised over £5000 from a sponsored walk that they did in April. The walk was in memory of Alfie Hague (the son of a staff member) who sadly passed away in January.

View from the Crew



Thank *You*



It costs £12,000 a day to keep the Yorkshire Air Ambulance helicopters maintained and in the air, thank you for supporting our Charity and keeping us flying over Yorkshire

You can support the YAA by:

- Becoming a Volunteer
- Hosting an event
- Playing our weekly lottery
- Leaving a gift in your will

For more information or to make a donation:

Phone: 01422 237900

Visit: yaa.org.uk



YORKSHIRE
AIR AMBULANCE

Registered Charity No. 1084305

Post:

Yorkshire Air Ambulance
Cayley House, 10 South Lane,
Elland HX5 0HQ