

Research Strategy 2024-2027

Research Institute
Yorkshire
Ambulance
Service

Author: Head of Research and Development



Document Reference	Strategy – YAS Research Strategy 2024-2027 – May 2027
Version	V: 7.0
Responsible Director (title)	Executive Medical Director
Document Author (title)	Head of Research and Development
Approved By	Trust Executive Group
Date Approved	April 2024
Review Date	May 2027
Equality Impact Assessed (EIA)	Yes
Document Publication	Internal only

Document Control Information

Version	Date	Author	Status (A/D)	Description of Change
1	Sept 2009	Jane Shewan and Peter Mortimer	À	
1.1	Jul 2011	Jane Shewan and Peter Mortimer	D	
2	Oct 2011	Jane Shewan	Α	
2.1	Jul 2013	Jane Shewan	D	
3	6 Nov 2013	Jane Shewan	Α	
4	Jun 2016	Jane Shewan	Α	
4.1	17 Mar 2018	Jane Shewan	D	Refinement of aims and objectives. Inclusion of new objectives. Reference to the published UK Framework for Health and Social Care Research and other national strategy documents.
4.2	20 Mar 2018	Jane Shewan	D	Revised after external consultation with research network lead for patient involvement
4.3	25 May 2018	Jane Shewan	D	Supporting strategies added after Clinical Governance Group comment
5.0	May 18	Risk Team	Α	Approved at TMG
5.1	4 Mar 2021	Fiona Bell	D	Full strategy refresh with updated aims and objectives
5.2	12 Mar 2021	Fiona Bell	D	Refinement of objectives after Research Steering Group review
5.3	5 May 2021	Fiona Bell	D	Updated references following Clinical Governance Group review
6.0	May 2021	Risk Team	Α	Approved at TEG
6.1	January 2024	Fiona Bell	D	Full strategy refresh with updated aims and objectives
7.0	May 2024 oved D = Draft	Risk Team	A	Strategy approved within April 2024 Clinical Governance Group and April 2024 Quality Committee.

A = Approved D = Draft

Document Author = Fiona Bell, Head of Research and Development

Associated Documentation:

Research Governance Policy Clinical and Quality Enabling Plan

Introduction

This research strategy supports the purpose of Yorkshire Ambulance Service NHS Trust (YAS) to provide and co-ordinate safe, effective, responsive and patient-centred out-of-hospital emergency, urgent and non-emergency care, so all our patients can have the best possible experience and outcomes. Two of the aims outlined in the new YAS strategy for 2024-29 relate directly to research, firstly that YAS aims to "continually develop, providing both the conditions and opportunities for all our teams to thrive in a **research-active environment**", and secondly, that YAS will aim to "ensure **decisions are informed by evidence**, **research**, data and intelligence".

This research strategy outlines how the YAS Research Institute (YASRI) will lead the generation of evidence and facilitate research activity in YAS. Health research is vital to ensuring the best outcomes for patients. Research engagement adds benefit by improving patient-level and organisational outcomes that are positively associated with the level of research engagement (Ozdemir et al., 2015; Jonker and Fisher, 2018; Rees and Bracewell, 2019) and can contribute at an individual level to staff retention (Rees and Bracewell, 2019) It also contributes to the UK economy (Office for Life Sciences, 2017).

In 2022 the Department of Health and Social Care (DHSC) published their 3-year implementation plan to support the Future of UK Clinical Research Delivery (Department of Health and Social Care, 2022). This describes strengthening the UK clinical research ecosystem, specifically supporting diversity within the healthcare professions working in research, embedding research into NHS activity, putting patients at the heart of research, improving efficiency and innovation in research conduct, and leveraging UK data assets. Within YAS we have made progress appropriate to our context across all of these aspects of research delivery but recognise that we can further capitalise on recent successes, such as the launch of the YASRI in 2023, by implementing an ambitious research strategy in support of the DHSC and the Trust vision and purpose.

Where we are now

In October 2023, the YAS Research Institute was launched, realising a long-term goal to embed YAS in key research streams in partnership with higher education institutes and NHS provider organisations. The establishment of YASRI signalled our intention to take a more proactive role in leading high-quality health and care research.

Financial support from the National Institute for Health and Care Research Clinical Research Network in Yorkshire and Humber (NIHR CRN YH), enabled the recruitment of specialist staff into key research development and leadership posts. These include the first Senior Research Fellow and Research Data Analyst posts within an NHS Ambulance Trust. In addition, all posts within YASRI continue to be fully covered by external income.

The Institute has several key partnerships in place with local NHS Trusts and universities, which have supported this recent expansion, placing us at the heart of the regional research

ecosystem. For example, as part of the Wakefield Research Hub, YAS were awarded the NIHR CRN YH "Best contribution in a non-NHS setting" for supporting the delivery of a network of research-active care homes.

We have a high proportion of YAS clinicians engaged research, with over 375 paramedics trained to deliver the PACKMaN¹ and CRASH-4² clinical trials of an investigational medicinal products (CTIMP) during the period of the last strategy. During 2021-2024 a total of 42 studies were open, an increase from 34 in the previous three years. These were in a variety of clinical areas, dominated by cardiac arrest, COVID-19 and major trauma topics or were cross-cutting in areas such as patient safety or staff wellbeing including one interventional trial of a staff sickness absence intervention (IGLOo³).

The YASRI has developed processes that support the sponsorship and hosting of more research projects, notably bidding to host and sponsor an NIHR Health Services and Delivery Research project investigating the impact and care trajectory of patients who have fallen which begins in 2024.

Vision for 2027

Increasing opportunities for our ambulance service staff, patients and communities to participate in high quality research that improves the out-of-hospital emergency, urgent and non-emergency care we provide.

Our Ambition for 2027

We have three key ambitions for research in Yorkshire Ambulance Service NHS Trust by 2027, which are underpinned by eight aims.

¹ Paramedic Analgesia Comparing Ketamine and MorphiNe in trauma: PACKMaN – over 250 staff trained

² Intramuscular tranexamic acid for the treatment of symptomatic mild traumatic brain injury in older adults: a randomised, double-blind, placebo-controlled trial – over 125 staff trained

³ Sustainable return to work: A pilot cluster randomised controlled trial of a multicomponent workplace 'IGLOo' intervention compared with usual return-to-work support

Setting the direction

- Using our data to best effect, targeting problems that matter
- Meeting the needs of the communities we serve, addressing the direct priorities of the Trust and generating research income through developing, sponsoring and hosting research that drives innovation and excellence

Being a trusted institute

- Developing our ambulance service workforce to be research engaged and create new research leaders
- Succeeding in study recruitment including to time and to target
- Working in partnership

Creating impact

- Supporting the use of best evidence for healthcare improvement
- Generating high quality, reliable research evidence
- Support addressing health inequalities

To achieve this vision and these aims, we will capitalise on the advantages of the new YASRI by influencing through our partnerships, further refining our governance systems, developing YAS people and improving the uptake of evidence into practice.

Strategy Delivery

The YAS research strategy will be delivered by the staff of the YASRI, supported by the members of the Research Institute Steering group. Activities aligned to our ambitions and aims will be written into a workplan which will be monitored by the Research Institute Steering group and reported quarterly to the Clinical Governance group. The rationale for the development of specific activities in the workplan and their key enablers are summarised below.

Setting the direction

- Aim 1- Using our data to best effect, targeting problems that matter
- Aim 2 Meeting the needs of the communities we serve, addressing the direct priorities of the Trust and generating research income through developing, sponsoring and hosting research that drives innovation and excellence

Setting the direction of the research we participate in requires us to lead in the development, sponsorship and hosting of that research. These activities require investment in our processes around talent management i.e. identifying research leaders, and in improving the processes for monitoring and assuring quality projects where YAS has the role of research

sponsor⁴. YAS research will continue to be conducted in line with the UK Policy Framework for Health and Social Care research and the YAS Research Governance Policy. We will improve our performance management processes for sponsored projects, employing best practice examples from our NHS collaborators.

Grant capture has increased in YAS consistently, and in 2025-26 we will receive our first Research Capability Funding (RCF) related to hosting NIHR grant income, rather than participant recruitment. We will develop our plans to best utilise this funding to support the development of a pipeline of future research projects, creating a beneficial cycle for research income growth.

There are also significant economic benefits to involving industry in NHS research (Office for Life Sciences, 2017; Department of Health and Social Care, 2023) and YASRI will continue to seek opportunities to be involved with commercial, industry and med-tech research through our partnerships.

YASRI already hosts the first ever dedicated research data analyst in an NHS Ambulance Trust. We will further invest in research data analyst posts and training which will support both the identification of suitable research projects and the timely provision of data for individual research projects and research databases. YAS contributes to both the CUREd+ and Connected Bradford research databases which link routinely collected hospital and other health data sets to ambulance call and electronic patient report form data. These datasets have already enabled new insights into urgent and emergency care in the region, and we will continue to work with the research teams to utilise these unique datasets.

To support the YAS Trust ambition to improve population health, we will use our expertise to support the development of population health analysis within the Trust to inform research priorities that meet the needs of the communities we serve. We will refresh our patient involvement plan to ensure that we continue to capture patient and community views and have patient perspectives driving our research portfolio.

Through the new integrated care partnerships, closer links between health and social care are developing, with local research partnerships also developing between the sectors. YASRI will maintain existing links, and work to develop effective partnerships in research delivery, to ensure that patients experience a seamless research pathway where appropriate.

We will meet these aims by achieving the following objectives:

- Using the up-to-date cBradford dataset to deliver new insight
- YASRI representation on the CUREd+ data release committee
- An increase in the whole time equivalent (WTE) of the research data analyst role
- An increase in the number of YAS-sponsored studies
- An increase in the number of number of NIHR grants hosted in YAS
- An increase grant income and RCF (creating a virtuous circle)
- Carrying out a refresh of the YAS research patient involvement plan
- Opening at least one study with any commercial funding

⁴ The sponsor is the individual, organisation or partnership that takes on overall responsibility for proportionate, effective arrangements being in place to set up, run and report a research project)(Health Research Authority, 2023)

Being a trusted institute

- Aim 3 Developing our ambulance service workforce to research engaged and develop new research leaders
- Aim 4 Succeeding in study recruitment including to time and to target
- Aim 5 Working in partnership

In order to be able to conduct high-quality research and be a trusted institute, our YAS workforce is the primary enabler. We know that providing healthcare professionals with dedicated time for research not only drives best practice but can also boost staff retention (Rees and Bracewell, 2019). However, it is recognised that that there is a lack of research career progression beyond Masters level for nurses, midwives and allied health professionals (AHPs) (Trusson, Rowley and Bramley, 2019).

During 2021-24, four YAS clinicians have completed NIHR introductory research courses, with two YASRI staff completing a postgraduate research delivery qualification and two others completing PhDs, including one prestigious NIHR ICA Clinical Doctoral Research Fellowship, as detailed in the table below. YASRI also offer support to MSc students undertaking their research dissertation in the form of group sessions and 1:1 advice. We have established a PhD Peer Support Network within YAS (PEEPS) which in 2023 supported 6 YAS staff in a variety of patient-facing and non-patient facing roles. We will continue to explore opportunities for secondments, match funding and training for our staff such as those provided by HEIs, partner NHS trusts, NIHR infrastructure and the NIHR Academy.

Programme	Number of YAS staff completed in 2021-24
NIHR CRN YH 'First steps into research'	2
NIHR Integrated Clinical Academic (ICA) internship	2
PgCert Research Delivery Management	2
NIHR ICA Clinical Doctoral Research Fellowship	1
PhD funded by NIHR infrastructure	1

Trusson, Rowley and Bramley (2019) describe the need for support at all levels of NMAHP research careers, but specifically note that investment is needed to establish more post-doctoral roles. To complement the existing PEEPS group the YASRI will develop peer support for post-graduate researchers, aiming to increase the likelihood of a successful application for at least one post-graduate fellowship hosted by YAS. We will look to work with our HEI partners to further foster sharing ideas, support with impact and knowledge exchange.

The College of Paramedics career framework illustrates the variety of possible research roles for paramedics (College of Paramedics, 2023). A continuum in research engagement has been used to describe how research engagement may change over a career pathway for AHPs (Figure 1 and (State of Victoria, 2018)). In line with this, we will develop an undergraduate research placement programme for paramedics, and work with appropriate HEIs in the region to implement this initiative. As a pillar of advanced clinical practice, research activity should feature in all advanced practitioner roles, in line with the Trust ambition to develop the paramedic profession in YAS. We will work to ensure that job plans are updated to reflect this and will utilise our RCF to protect clinician time to develop research projects. We will also seek to address the 'lag' in number of research active leaders in YAS,

by supporting more staff to take on the role of principal investigator and being responsible for the local delivery of healthcare research, including for cross-cutting themed projects.

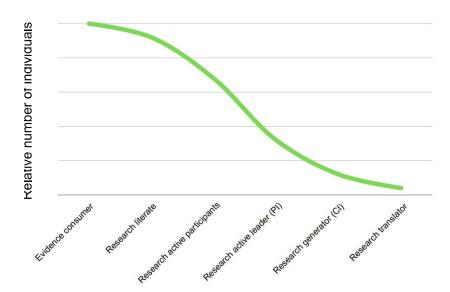


Figure 1: Adaptation of the allied health research continuum (State of Victoria, 2018)

Wilson and Bell (2023) discuss the differences between research delivery and research leadership roles for paramedics, describing how dedicated research roles may be different depending on the motivation to be involved in research (Whitley and Wilson, 2022). To support our continued achievement against the NIHR performance measures for research delivery, YASRI will continue to engage with the YAS workforce and with our local and national partners to boost our capacity and capability to deliver research, whilst strengthening staff capacity to be research leaders.

A number of healthcare profession-specific research strategies and position statements have been recently published for AHPs (Health Education England, 2022), nurses (NHS England and NHS Improvement, 2021) and physicians (Arasaradnam *et al.*, 2023). While this strategy acknowledges these, we also recognise that many other staff play a pivotal role in research development, delivery and implementation. We are therefore committed to developing our workforce and, through our communications plans and peer support networks, will share all relevant opportunities with staff in any role.

By working with our existing partners in place-based collaborations or with HEIs, such as the University of Sheffield where we already have a memorandum of understanding in place, we hope to be able to invite more opportunities for our staff to develop. This may be in the support of study delivery through the appropriate agreements to share research delivery resource, or through placements, internships, secondments or honorary contracts with HEI or NHS partners. We will continue to aim for the development of clinical academic roles, in particular for paramedics to ensure that we are remain outstanding in developing paramedic-led research, whilst recognising ambulance service care delivery is multi-disciplinary.

NHS ambulance services have some of the highest sickness absence rates (Asghar *et al.*, 2021) and challenges with staff retention (Weyman *et al.*, 2023). The YAS research team has contributed to this evidence base, and will maintain our prominence as subject matter experts in this area by continuing to develop key projects in this area. We will continue to focus on ensuring that all staff have the opportunity to be participants in research that will improve their wellbeing and make YAS a great place to work and do research.

We will meet these aims by achieving the following:

- Implementing an undergraduate paramedic research placement
- An increase in staff undertaking formal research training programmes (ranging from internships to research delivery management or PhD)
- Utilising RCF to protect clinician time to develop future research
- Hosting at least one post-graduate fellowship
- Maintaining the PEEPs network and developing a post-graduate peer support network
- An increase the number of YAS staff in the role of Principal Investigator
- Undertaking interventional research to improve staff wellbeing or factors that affect retention.
- Achieving against national performance measures for research delivery
- Sustaining engagement in place-based research collaboratives
- Sign a new MoU with HEI(s) delivering paramedic practice education

Creating impact

- Aim 6 Generating high quality, reliable research evidence
- Aim 7 Supporting the use of best evidence for healthcare improvement
- Aim 8 Support addressing health inequalities

Measuring the impact of research is challenging (Greenhalgh *et al.*, 2016), with numerous models developed that are challenging to complete due to the resource required. Research impact refers to numerous facets, from the development of research skills and processes, knowledge generation, policy / practice change, and financial benefit. To understand how taking part in research benefits an organisation, YAS will use the VICTOR (making Visible the ImpaCT Of Research) tool (Holliday, Jones and Cooke, 2023).

Recently completed studies by staff within YASRI have resulted in a changes to practice (AIRWAYS-2, MATTS) or have validated current practice (PHEWS in reference to the use of NEWS2), clearly demonstrating the impact to practice that arises from research that YASRI participates in. To continue to build on this important aspect of knowledge mobilisation, YASRI will deliver a programme of research dissemination through face-to-face research seminars and continue to plan our communications with our staff and the public, to maximise the dissemination of research results. We will also increase the number of staff-authored peer-reviewed research publications to contribute to the knowledge base for urgent and emergency care.

A direct route to policy or practice change from a single project is rare, and change is usually driven by a body of evidence. We will seek to understand staff learning needs around evidence appraisal to speed up evidence uptake and implementation, and we will continue to promote the service offered by the Library and Knowledge Service for Ambulance Services in England (LKS ASE). We will also champion the delivery of critical appraisal training, supporting our staff to increase skills in using evidence, by acting upon the findings from the learning needs analysis, and will be supported in ensuring the uptake of evidence by the clinical and quality enabling plan.

Addressing the impact of health inequalities has been highlighted as a priority action for NHS organisations. The YAS strategy describes an ambition to reduce inequality and improve population health outcomes, supporting all our communities. The YASRI will contribute to the evidence-base for reducing health inequalities in our population through working with the

YAS public health lead to address knowledge or implementation gaps. We will continue to report on the diversity of the participants in research studies, and act on our feedback through the NIHR Patient Research Experience survey. We will aim to reduce the impact of health inequalities by delivering at least one interventional study in this cross-cutting theme.

We will meet these aims by achieving the following:

- Applying the VICTOR tool to one research project per year
- Increasing the number of YAS staff-authored peer-reviewed research publications
- Delivering an annual research seminar series
- Undertaking and implementing the findings of a staff learning need analysis relating to evidence uptake
- Continuing to promote the library services of the LKS ASE
- Delivering an annual research communications plan that shares opportunities with staff and potential research participants, and disseminates research findings
- Championing critical appraisal skills for all YAS staff
- Engaging in measuring the diversity of our research participants and acting upon feedback from completed Patient Research Experience Surveys (PRES)
- Delivering at least one interventional study related to reducing health inequalities

Summary

Our vision for research in 2027 is to increase opportunities for our ambulance service staff, patients and communities to participate in high quality research that improves the out-of-hospital emergency, urgent and non-emergency care we provide.

We will continue to build on our significant achievements in research delivery and development, through capitalising on new and existing partnerships in the YAS Research Institute. We will develop our staff, demonstrating excellence in research delivery and ensuring the work we do has an impact in improving health.

Setting the direction

- ·Using our data to best effect, targeting problems that matter
- •Use up-to-date cBradford dataset to deliver insight, with represented on CUREd+ data release committee
- More research data analyst capacity
- •Meeting the needs of the communities we serve, addressing the direct priorities of the Trust and generating research income through developing, sponsoring and hosting research that drives innovation and excellence
- •Increasing capacity to deliver research thorugh increasing YAS hosted NIHR grants, YAS sponsored projects, increased grant income and RCF, and develop commercial study portfolio
- Refresh the patient involvement plan

Being a trusted institute

- Developing our ambulance service workforce to be research engaged and create new research leaders
- Developing undergraduate research placements, supporting research secondments, and increasing staff participating in formal research training opportunities
- Job plans to include research, protecting clinician time to do and develop research and increase number of staff PIs
- Maintaining the PhD support network, host at least one post-graduate fellowship and develop a support network for post-graduates
- Supporting interventional research to improve staff wellbeing or factors that affect retention
- Succeeding in study recruitment including to time and to target
- Continuing to acheive against national performanace measures for research delivery
- ·Working in partnership
- Further developing mutualistic links with local and national collaboratives, HEIs and partners including agreeing another MoU with HEI providing paramedic practice education

Creating impact

- · Generating high quality, reliable research evidence
- •Increasing the output of staff-authored peer-reviewed research publications and applying the VICTOR tool to track the impact of research participation
- Supporting the use of best evidence for healthcare improvement
- Delivery annual dissemination events of study results to staff and the public, and deliver communications plan to share opportunities and outcomes
- Promote the library service
- Promote evidence uptake and critical appraisal skills
- Support addressing health inequalities
- Deliver research that aims to reduce health inequalities in our population
- · Measure the diversity of our research participants and act on feedback from patient participants

All of these activities will support the Trust strategy objective to *Ensure decisions are informed by evidence, research, data and intelligence* and will directly contribute to the YAS vision for 2029: Great Care, Great People, Great Partner.

References

Arasaradnam, R. *et al.* (2023) 'Making research everybody's business: a position statement of the Royal College of Physicians and the National Institute of Health and Care Research', *Clinical Medicine*, 23(2), pp. 102–105. Available at: https://doi.org/10.7861/clinmed.2022-0482.

Asghar, Z.B. *et al.* (2021) 'Trends, variations and prediction of staff sickness absence rates among NHS ambulance services in England: a time series study', *BMJ Open*, 11(9), p. e053885. Available at: https://doi.org/10.1136/bmjopen-2021-053885.

College of Paramedics (2023) Paramedic Career Framework 2023 5th Edition, https://collegeofparamedics.co.uk/COP/ProfessionalDevelopment/post_reg_career_framework.aspx.

Department of Health and Social Care (2022) *The Future of UK Clinical Research Delivery:* 2022 to 2025 implementation plan, https://www.gov.uk/government/publications/the-future-of-uk-clinical-research-delivery-2022-to-2025-implementation-plan.

Department of Health and Social Care (2023) *Medical Technology Strategy*, https://www.gov.uk/government/publications/medical-technology-strategy.

Greenhalgh, T. et al. (2016) 'Research impact: a narrative review', BMC Medicine, 14(1), p. 78. Available at: https://doi.org/10.1186/s12916-016-0620-8.

Health Education England (2022) Allied Health Professions' Research and Innovation Strategy for England,

https://www.hee.nhs.uk/sites/default/files/documents/HEE%20Allied%20Health%20Professions%20Research%20and%20Innovation%20Strategy%20FINAL 0.pdf.

Health Research Authority (2023) *UK Policy Framework for Health and Social Care Research*, https://www.hra.nhs.uk/planning-and-improving-research/policies-standards-legislation/uk-policy-framework-health-social-care-research/uk-policy-framework-health-and-social-care-research/#sponsors.

Holliday, J., Jones, N. and Cooke, J. (2023) 'Organisational benefits of undertaking research in healthcare: an approach to uncover impact', *BMC Research Notes*, 16(1), p. 255. Available at: https://doi.org/10.1186/s13104-023-06526-5.

Jonker, L. and Fisher, S.J. (2018) 'The correlation between National Health Service trusts' clinical trial activity and both mortality rates and care quality commission ratings: a retrospective cross-sectional study', *Public Health*, 157, pp. 1–6. Available at: https://doi.org/10.1016/j.puhe.2017.12.022.

NHS England and NHS Improvement (2021) Making research matter Chief Nursing Officer for England's strategic plan for research, https://www.england.nhs.uk/wp-content/uploads/2021/11/B0880-cno-for-englands-strategic-plan-fo-research.pdf.

Office for Life Sciences (2017) *Life sciences: industrial strategy*, https://www.gov.uk/government/publications/life-sciences-industrial-strategy.

Ozdemir, B.A. *et al.* (2015) 'Research Activity and the Association with Mortality', *PLOS ONE*, 10(2), p. e0118253. Available at: https://doi.org/10.1371/journal.pone.0118253.

Rees, M.R. and Bracewell, M. (2019) 'Academic factors in medical recruitment: evidence to support improvements in medical recruitment and retention by improving the academic content in medical posts', *Postgraduate Medical Journal*, 95(1124), pp. 323–327. Available at: https://doi.org/10.1136/postgradmedj-2019-136501.

State of Victoria, D. of H. and H.S. (2018) *Victorian allied health research framework*, https://www.health.vic.gov.au/sites/default/files/migrated/files/collections/research-and-reports/a/allied-health-victorian-research-framework.pdf.

Trusson, D., Rowley, E. and Bramley, L. (2019) 'A mixed-methods study of challenges and benefits of clinical academic careers for nurses, midwives and allied health professionals', *BMJ Open*, 9(10), p. e030595. Available at: https://doi.org/10.1136/bmjopen-2019-030595.

Weyman, A. *et al.* (2023) 'Determining the relative salience of recognised push variables on health professional decisions to leave the UK National Health Service (NHS) using the method of paired comparisons', *BMJ Open*, 13(8), p. e070016. Available at: https://doi.org/10.1136/bmjopen-2022-070016.

Whitley, G.A. and Wilson, C. (2022) 'Paramedics . . . Why do research?', *British Paramedic Journal*, 7(1), pp. 1–2. Available at: https://doi.org/10.29045/14784726.2022.06.7.1.1.

Wilson, C. and Bell, F. (2023) "Research paramedic" and "paramedic researcher": two different sides of the same coin', *British Paramedic Journal*, 8(1), pp. 53–53. Available at: https://doi.org/10.29045/14784726.2023.6.8.1.53.

YAS Strategy 2024-2029