Prof Paresh Wankhade, Prof Peter Murphy & Dr Geoffrey Heath – Written evidence (AES0028)

House of Lords

PUBLIC SERVICES COMMITTEE

Access to emergency services inquiry

Written evidence from:

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1. Executive summary

The introduction of the Ambulance Response Programme (ARP) by NHS England in 2017 has led to some improvement in the evaluation of ambulance performance. However, response targets continue to be predominant in ambulance performance metrics despite research showing the need to focus more on quality and outcomes. The ARP also fails to take into consideration new evidence on reforming non-urgent calls and the value of greater stakeholder consultation.

Over the last ten years, professionalisation has been transforming ambulance services and the role of paramedics worldwide which we consider should be accelerated in England. The current crisis in the A&E has resulted in long waiting times for ambulance crews to handover patients, significantly impacting waiting times for ambulance users and the availability of crews/resources which can be improved by better triage of 999/111 calls. Finally multiple recent announcements and initiatives to build capacity and improve ambulance services, while welcome, make it imperative to think strategically about planning, implementation and delivery.

The detailed evidence presented here, therefore, relates to the following four areas:

- The need for strategic delivery plans to improve both capacity and service quality.
- The rapid professionalisation of ambulance services.
- Continuous improvement in triage, and

- Performance evaluation and review of non-urgent call prioritisation.

This leads us to make the following recommendations for the Select Committee's consideration:

1. The current policies, proposals and initiatives designed to improve both capacity and service quality should be rationalised, prioritised and articulated in a cohesive and comprehensive set of delivery strategies. There should be a single national document together with ten nested 'daughter' documents one for each Ambulance Trust area..

2. The national strategy should be led by NHS England but should be the joint responsibility of the relevant Acute Hospital Trusts, the new Integrated Care Systems, and the NHS regional teams all working with the Ambulance Trusts. The daughter documents should also be the joint responsibility of the same community of interest but should be led locally by the Ambulance Trusts and Integrated Care Boards.

3. The plans should include *inter alia* expedited delivery of the 'state of the art control room solution' piloted in the Isle of Wight as part of the national program and the outcome of a review of the protocols and standards informing dispatch and triage.

4. While this delivery plan will need to incorporate a number of short-term workforce initiatives, it should also support the College of Paramedics in seeking *Royal College* status for recognition of the professional expertise of paramedics.

5. Greater collaboration is recommended between academics and practitioners to facilitate further attempts to professionalise emergency services, learning from the experience of the pandemic, particularly the use of firefighters to support ambulance crews.

6. If not already available, NHS England should commission a review of best practice and innovation in triaging that emerged in response to the pandemic.

7. NHS England, the Association of Ambulance Chief Executives and the College of Paramedics should facilitate a review of ambulance performance targets in England, ensuring this exercise is informed by current practice in the UK and internationally.

8. NHS England should commission a stakeholder consultation to review Category 3 & 4 calls in England involving paramedic crews, control room dispatchers, call handlers, clinicians, academics and patient and user groups.

2. Summary of Expertise

Paresh Wankhade is Professor of Leadership and Management at Edge Hill University. He is an expert on emergency services management. His extensive research and published work focuses on exploring the impact of performance metrics, organisational culture and leadership in emergency services. He has vast experience of interviewing and observing frontline emergency crews to explore their perceptions about management practices and its impact on their personal wellbeing and resilience. He is currently working on a series of articles after conducting more than 50 interviews in an NHS ambulance trust to examine the impact of Covid-19 on service delivery and staff well-being. His latest book (with Peter Murphy) examines the gap in emergency services research and suggests ways forward to bridge it**.**

Peter Murphy is Head of Research and Professor of Public Policy and Management at Nottingham Business School, Nottingham Trent University. Prior to joining NTU in 2009 he had been the Chief Executive of a Local Authority, a Director of a Regional Government Office and a Senior Civil Servant during which time he has co-ordinated responses to multiple local, regional and national emergencies. Peter specialises in practically based and applied research. His recent projects include research on patient flow through A&E, delays in discharge from acute hospitals, patient and public satisfaction with healthcare services, evaluation of performance of the three blue light services (police, ambulance and fire and rescue services) and the effectiveness of their collaborations.

Geoffrey Heath is Fellow in Public Sector Accounting at Keele Business School, University of Keele. Previously he was a lecturer there and at Staffordshire University and, before that, he worked in NHS Finance where he qualified as a Chartered Management Accountant. He has an undergraduate degree from the University of Kent and a Licentiate and Doctorate from Lulea University, Sweden. His research interests concern performance evaluation, governance and accountability in the public

sector. Over the years, he has participated in collaborative research in health, social care, community safety, urban renewal and local government. He has a particular expertise concerning ambulance services, which he has been studying for twenty years. He was a pioneer in researching performance indicators in the English ambulance service and has published numerous articles on the subject.

3. Themes identified for further analysis

Based on our experience and contemporary research, we now present evidence in relation to four areas identified in the summary above:

- The need for strategic delivery plans to improve both capacity and service quality.
- The rapid professionalisation of ambulance services.
- Continuous improvement in triage as this remains a key issue for the service, and
- Performance evaluation and review of non-urgent call prioritisation.

3.1 Strategic delivery plans are needed to ensure economic, efficient and effective implementation of proposed improvements to both capacity and service quality.

After multiple recent announcements and initiatives, some of which are referred to below, there is no shortage of plans and commitments to build capacity and improve ambulance services. There exist a number of inadequacies in the performance management arrangements of emergency healthcare services but what is most needed (but currently conspicuously absent) are strategic delivery plans with an urgent emphasis on 'benefits realisation' to co-ordinate and effectively implement these initiatives. These should be an urgent priority and take the form of a single national document together with ten 'nested' daughter documents one for each Ambulance Trust area.

To illustrate the 'initiative overload' we would point to some recent policy documents and a spate of ministerial announcements. In December 2020, the NHS released "Transformation of urgent and emergency care: models of care and measurement"[1]. Building on The NHS Long Term plan and learning from the first waves of the pandemic the "clinically led" report's ambition was "to strengthen the offer for patients, delivering improved access and outcomes, addressing health inequalities and giving a better experience of care". They also wanted to introduce improved ways of accessing care online and on the phone from NHS 111, at home from a paramedic, and provide booked time slots for care in an emergency department.

On 5th September 2022 the current Secretary of State (Steve Barclay) announced:

- Increasing funding for ambulances with £150 million for NHS Trusts.

- Heath Education England has been mandated to train 3000 paramedic graduates per year, double the number of graduates accepted in 2016.
- Implement a digital intelligent routing platform and live analysis of 999 calls.
- Agree and implement good practice principles for the rapid release of queuing ambulances in response to unmet category two demand.
- Increase the utilisation of rapid response vehicles, supported by non-paramedic staff, to respond to lower acuity calls.
- Deploy mental health professionals in 999 operation centres and clinical assessment services, deliver education and training to the workforce and increase the use of specialist vehicles to support mental health patients.
- Establishing a £30 million contract with St John Ambulance to provide surge capacity of at least 5000 hours per month to enhance the response and support for ambulance trusts.

On 7th September 2022, former Secretary of State (Thérèse Coffey) for health and social care set out her "ABCD" priorities which significantly stressed ambulance delays. On 22nd September, the Government set out its plan to improve outcomes for patients. This included several commitments on emergency health services:

- Improving triage – to direct to the full range of services, better direct people to appropriate settings such as minor injuries units.
- Dedicated 24/7 helplines for patients experiencing a mental health crisis.
- Increasing workforce numbers on 111 (to 4800) and 999 (by 300 by December to 2500).
- Expanding the use of remote monitoring of patients at home, and the use of preventions and falls response services.
- Improve ambulance response times through clear escalation arrangements for when delays occur and deploy hospital ambulance liaison officers facilitating greater collaboration between ambulance trusts.
- Explore establishing a new ambulance auxiliary service.
- Making 31,000 phones lines available for GP practices and delivering cloud-based phone solutions for GP surgeries.

There are clearly now numerous policy initiatives and multiple government commitments some of which are overlapping, some with budgets and costings attached, others either vague and/or un-costed and in some cases, without any targets or milestones. There is a clear need for a co-ordinated delivery strategy with a strong benefits realisation emphasis. From our previous experience and research, we suggest that the current policies, proposals and initiatives should be rationalised, prioritised and articulated in a cohesive and comprehensive set of delivery strategies. There should be a single national document together with ten nested 'daughter' documents one for each Ambulance Trust area in England.

The national strategy should be led by NHS England but would be the joint responsibility of the Acute Hospital Trusts, the new Integrated Care Systems, the NHS regional teams working with the regional Ambulance Trusts. The daughter documents should also be the joint responsibility of the same community of interest but would be led locally by the Ambulance Trusts and the Integrated Care Boards.

3.2 Further progress is needed towards professionalisation

Uniformed occupations, such as emergency services, have not traditionally enjoyed a high status unlike medicine, finance or legal professions and at best, have been seen as 'semi' or 'para' professions, still striving to acquire the full traits of a profession.

In our research[2-3], we have examined the changing context of the emergency services globally and more specifically in the UK; highlighting how emergency services are dealing with complex societal pressures, such as demographic changes, while trying to cope simultaneously with notable cuts in operational budgets, increasing demand for their services and significant changes in the operational and policy landscapes. A fundamental shift in the nature of demand, the scope of the work and the nature of service delivery over the last decade has influenced the pursuit of reforms, the services response and the debate over greater professionalisation across the blue-light services.

In a forthcoming research monograph[4], we trace the history, progress and current state of professionalisation in the three main emergency services, namely ambulance, police and fire and rescue, while investigating international practice in major comparable countries such as the USA, Australia and parts of Europe. Our research has highlighted some key differences in the professionalisation journeys of the three services. Ambulance services have been leading on professionalisation, modernisation and upgrading their clinical practice. This is despite facing

a rising demand, national paramedic vacancies, competition from non-ambulance employment opportunities and resourcing challenges coupled with not fit-for-purpose performance metrics which are still largely based upon response time targets.

The College of Paramedics, the main professional body in the UK, is seeking Charter status and the three-year HEI based paramedic degree qualification is driving clinical improvements such as 'see and treat' and 'hear and treat' options for paramedics rather than always taking patients to Accident and Emergency (A&E) departments. Similar initiatives to enhance the status of the profession are also happening in the US, Canada, Australia and Ireland, *inter alia,* with paramedicine now becoming a regulated profession. The position in Europe is also changing with new national regulations and laws, and in most countries, pre-hospital care is partly funded by the government with growing calls for harmonisation of the paramedic education on a European level and the need for at least a bachelor's degree university education.

Professionalisation in police and fire services is less advanced. In the case of the police, some progress arose from the introduction of Policing Education Qualifications Framework (PEQF) in 2016, but key unresolved questions remain over the role of policing and the balance between legitimacy, crime reduction and public expectations. Attempts to professionalise the fire and rescue services have been relatively modest in comparison. The service lacks an independent professional body to regulate professional training and education. There are no nationally agreed entry requirements for fire fighters, with education and training still strongly focussed on operational requirements and fitness regimes. The nature of fire service work is changing, with a greater emphasis on prevention and protection, affecting the future of firefighting. There is however agreement on the need for more professionalism, quality assurance and third-party independent accreditation in the learning and development strategies for fire services[5] that mirror similar initiatives within the police service.

Based upon available evidence and recent and contemporary research on the subject, we believe that while emergency services have made great strides in expanding their skills and expertise, their quests to be considered as fully developed professions are still not without challenges. We therefore recommend that further attempts to professionalise emergency services should seek greater collaboration between academics and practitioners to get a clear understanding and appreciation of the changing socio-economic realities and the emergence of new, novel and hybrid organisational forms.

It has been acknowledged for some time that it would be relatively simple and economical to train firefighters to assist in dealing with low acuity ambulance calls. Consequently, we also recommend learning from the experience of firefighters driving ambulances, dealing with appropriate calls and moving bodies of the deceased during the pandemic[6]. This eased pressure on the ambulance service and allowed paramedics to focus on cases requiring higher skills sets.

3.3 Improving triage remains a key objective for the service

We are aware that dedicated 24/7 helplines and a revised approach to patients experiencing a mental health crisis are proposed and supported by evidence submitted to the inquiry from more knowledgeable witnesses and we commend these initiatives.

There are three areas that we would like to focus on in order to investigate potential improvements in triage:

i) Control rooms telephone triaging
ii) Triaging at the incident site by paramedics
iii) Triaging at A&E or other place of treatment by clinical staff

i) Control rooms and telephone triaging:

Most countries operate a system where a single emergency number is used, and calls are diverted to separate control rooms for the three blue light services. There are Joint Control Rooms, but these tend to be in very small areas (both in terms of geography and population) and the nearest operates in the Isle of Man (which has exceptionally high target and performance figures). In 2016, the Home Office called for joint control rooms between services, but provided no empirical or independent evidence to support the call. More recently the 'state of the art control room solution' piloted in the Isle of Wight as part of a national program focussed only on ambulances. This has now been fully tested and helped the national programme move into its delivery phase, rolling it out to the rest of the country, which should provide evidence of the efficacy of such an approach in a wider context.

There is currently relatively little academic evidence about the efficiency and effectiveness of control rooms in the UK generally and joint control rooms in particular. Control rooms are included in HMICFRS service inspections. The latest evidence from HMICFRS collected immediately before the pandemic (2018/19) reported that Police control rooms are in danger of being overwhelmed by the ever rising and increasingly more complex demands they face. The AACE Ambulance Quality Indicators Data

provides a similar picture and there is substantial ad hoc and informal evidence to support this view.

In Dublin, the East Region Control Centre (ERCC) is operated and managed by Dublin Fire Brigade. The ERCC handles the fire, rescue and emergency calls for the majority of Leinster and also handles emergency ambulance (but not police) calls for Dublin City and County. Accredited with the International Academies of Emergency Dispatch (IAED) as a centre of excellence, this enables fire and ambulance resources to be dispatched simultaneously to serious incidents. The National Ambulance Service (part of the Irish national healthcare authority) directly provides all 999 emergency ambulance services in the rest of Ireland.

Regional Fire and Rescue Control rooms (and the potential establishment of joint control rooms) were investigated by ODPM in 2003 and led to the organisational and financial fiasco documented in the NAO report[7] *The failure of the FiReControl project* in 2011. It was terminated after running repeatedly over-budget and behind schedule, and to avoid further taxpayers' money being wasted.

ii) <u>Triaging at the incident site by paramedics</u>

As mentioned above, the historical evolution of the ambulance service from a simple patient transport service requiring just a driver license and a first-aid certificate, delivering sick and injured patients to A&E departments (EDs) as quickly as possible into a modern, mobile prehospital care provider is nothing short of a transformational process.[8] This transformation process has been aided by enhanced clinical skills of frontline paramedics resulting in more interventions; more pathways to treat the patients on the scene with 'see and treat' and 'hear and treat' options[9-10] resulting directly into fewer journeys to the overcrowded hospital.

The Health and Care Professionals Council (HCPC) requires a 'bachelor's degree with Honours' for new paramedic registration from September 2021. As mentioned above, the College of Paramedics, which is the recognised professional body for paramedics is now seeking *Royal College* status for recognition of professional expertise of the paramedics, while witnessing a steady rise in its membership. The central role played by the ambulance service in the Urgent and Emergency Care strategy is being increasingly acknowledged in policy reports[10-112] attracting political attention. This reflects similar rapid transformations in Australia, New Zealand, USA, Ireland, Canada and some countries in Europe.

iii) Triaging at A&E or other place of treatment by clinical staff

The COVID-19 pandemic presented policy makers with the prospect of an increased demand for triage as regards life-saving medical interventions. The traditional 'British triage system' operates within A&E with a well-established meta-schema intended to save the most lives possible with the resources available. As the pandemic progressed, nurse triage and triaging in non-A&E settings, together with new triaging tools and protocols were increasingly deployed. These were generally considered successful and increased short-term capacity and effectiveness. Examples of out-of-hours initiatives also included:

- GPs working in A&E departments or urgent treatment centres, including minor injury units or walk-in centres
- Teams of healthcare professionals working in primary care centres, A&E departments or urgent treatment centres.
- Healthcare professionals making home visits after a detailed clinical assessment
- Ambulance services moving patients to places where they can be seen by a doctor or nurse to reduce the need for home visits.

These COVID-responses were generally considered successful and are said to have increased short-term capacity and effectiveness. We are not aware that these lessons and initiatives have been systematically captured. However, if not already available, the NHS or the Department of Health should commission a review of good practice and innovation in triaging that emerged in response to the pandemic.

NHS England is standardising and improving call handling technology across England. In practical terms, the NHS roll out of the national program and learning from the Isle of Wight pilot is the most likely source of improvement to the 999 call handling physical infrastructure in the short term. Similarly, the introduction of the cloud-based Single Virtual Contact Centre (SVCC) based on a pilot with Herts Urgent Care since 2016, will provide the first national contact handling platform for NHS 111 and will deliver better co-ordinated NHS 111, GP out-of-hours and clinical assessment services through its seven regions.

We have referred above to potential improvements through expediting the professionalisation of ambulance services and the potential to improve the standard protocols and procedures used in call handling. The delivery plans suggested above should embrace *inter alia* expediting the rollout of the 'state of the art control room solution' piloted in the Isle of Wight as part of the national program, the SVCC for NHS111 and the outcome of a review of the protocols and standards informing dispatch and triage.

3.4 Performance evaluation and review of non-urgent call prioritisation

Operational design and delivery of ambulance services both in the UK and internationally has been dominated by response time standards which are important in themselves, but do not convey a complete picture of ambulance service achievement and its value as a measure of the impact and quality of care is questionable.[12] The Performance Measurement system in place before 2011 consisted solely of time targets and fell into many of the pitfalls identified in the academic literature; for example, by generating perverse incentives and unintended consequences[13] and became notorious over time for enabling 'gaming'.[14] Moreover, it reinforced sub-cultural norms which stressed the 'heroic' role of the paramedic in responding rapidly to major incidents, stabilising patients and transporting them speedily to A&E units.[15]

Therefore, the introduction in 2011 of a dashboard of outcome and process indicators was welcomed but there were fears response times would still predominate in practice[16]and formal evidence that has been the case.[10,17] An emphasis on numbers of call outs, transportations to hospital and response times seems to persist despite the changing role of the paramedic referred to earlier. Other important aspects of ambulance service performance, such as the wellbeing of staff, were also neglected.[8,9,18] Our recent work conducted after the 2017 reform of the performance regime has highlighted the negative impact of work intensity on staff wellbeing and engagement.[9,19]

There is a danger that performance statistics will be collected, but not necessarily used for learning and improvement, thus undermining meaningful performance management. Furthermore, the lack of engagement with staff and service users in designing indicators or assessing performance stands out in our research, despite a range of techniques having been identified to facilitate consultation and participation in public services, from focus groups to participatory budgeting.

In the UK, categorisation of 999 emergency ambulance calls for dispatching ambulances shows significant variations. In England, the Ambulance Response Programme (ARP) set out four categories of performance standards in 2017 namely, the Life-threatening calls, Emergency Calls, Urgent Calls and Less Urgent Calls.[20] This follows the principle that patients should get the right response first time when they call. In Wales, there have been three categories of calls since 2015: Red (Immediately Life-threatening), Amber (Serious but not Life-threatening)

and Green (Neither serious nor Life-threatening). In Scotland, the new model introduced in 2016 categorises the 999 calls into four categories: Purple, Red, Amber and Yellow with time standards for each of these categories of calls.

There is a further distinction in how ambulance services' responses to these categories of calls are evaluated. In England and Scotland, response time targets have been set for all 4 category of call categories. In Wales, however, targets for the categories outside of Life-threatening Calls (Amber) have been replaced by a mix of response times, outcomes, care quality and patient experience. The review of Amber calls in Wales[21] is instructive. A vast range of conditions and potential responses were found to be subsumed in this one category, along with the danger of perverse incentives noted above. New time targets for the category were therefore rejected. Instead, the review recognised the need to evaluate whether the correct response was delivered and the quality of care received across the whole patient experience. It was recognised that planned resources should be sufficient to meet expected demand and, while measures of quality and response times were published, they were intended to reflect the patient's whole episode of care.

Thus, different arrangements exist in the UK for measuring performance. Therefore, an opportunity exists for improving the response especially to non-life-threatening calls across the UK by learning from the experiences of each devolved nation and particularly the Welsh Amber Review. There were clear concerns that the Amber group was too large (almost 60 % of 999 calls) and insufficiently robust in terms of prioritising patients with high acuity illness. The Welsh Government consequently commissioned the independent *Amber Review* in 2018.The review included a stakeholder consultation process as part of gathering evidence. It accessed the views of senior clinical and operational management in the Welsh Ambulance Service in one-to-one interviews, the views of Welsh ambulance staff through focus groups and public opinion by an online survey.

Professor Wankhade was invited to join the Expert Reference group of the review team. His role quickly expanded to that of adviser and peer reviewer alongside provision of analyses and contributions to the recommendations in the final report. Analysing call data over a two-year period, the Review concluded that the Welsh clinical response model (without a time target) is a valid and safe way of delivering ambulance services and is supported by members of public. The Review did not recommend the imposition of any new time standards for this category of calls, which is a departure from the practice followed in England and Scotland. It is understood that a post implementation working group

established in 2019 considered the model to be working well prior to the pandemic.

To conclude, although the performance dashboard and the subsequent 2017 review were significant steps forward in the performance regime for the English ambulance services, experience since that time, both before and during the pandemic as well as more contemporary research suggests that further potential improvements are desirable and feasible. We would suggest, therefore, a further review of the ambulance performance regime in England, ensuring this review is informed by current practice in the UK and internationally. As part of this review or in parallel with it, a stakeholder consultation should be undertaken to review Category 3 & 4 calls in England; inviting paramedic crews, control room dispatchers, call handlers, clinicians, academics and patient and user groups to participate.

4. Recommendations

1. The current policies, proposals and initiatives designed to improve both capacity and service quality should be rationalised, prioritised and articulated in a cohesive and comprehensive set of delivery strategies. There should be a single national document together with ten nested 'daughter' documents one for each Ambulance Trust area.

2. The national strategy should be led by NHS England but should be the joint responsibility of the relevant Acute Hospital Trusts, the new Integrated Care Systems, and the NHS regional teams all working with the Ambulance Trusts. The daughter documents should be the joint responsibility of the same community of interest but should be led locally by the Ambulance Trusts and Integrated Care Boards.

3.The plans should include *inter alia* expedited delivery of the 'state of the art control room solution' piloted in the Isle of Wight as part of the national program and the outcome of a review of the protocols and standards informing dispatch and triage.

4.While this delivery plan will need to incorporate a number of short-term workforce initiatives, it should also support the College of Paramedics in seeking *Royal College* status for recognition of the professional expertise of paramedics.

5. Greater collaboration is recommended between academics and practitioners to facilitate further attempts to professionalise emergency services, learning from the experience of the pandemic, particularly the use of firefighters to support ambulance crews.

6. If not already available, NHS England should commission a review of best practice and innovation in triaging that emerged in response to the pandemic.

7. NHS England, the Association of Ambulance Chief Executives and the College of Paramedics should facilitate a review of ambulance performance targets in England, ensuring this exercise is informed by current practice in the UK and internationally.

8. NHS England should commission a stakeholder consultation to review Category 3 & 4 calls in England involving paramedic crews, control room dispatchers, call handlers, clinicians, academics and patient and user groups.

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References

[1.] NHS England (2020). *Transformation of urgent and emergency care: models of care and measurement*. Available at: https://www.england.nhs.uk/wp-content/uploads/2020/12/transformation-of-urgent-and-emergency-care-models-of-care-and-measurement.pdf

[2.] Wankhade, P., McCann, L. and Murphy, P. (eds.) (2019). *Critical Perspectives on the Management and Organization of Emergency Services*. New York: Routledge.

[3.] Wankhade, P. and Patnaik, S. (2019). *Collaboration and Governance in the Emergency Services: Issues, Opportunities and Challenges*. London: Palgrave Pivot.

[4.] Wankhade, P. and Murphy, P. (2023). *Emergency Services Management: A Research Overview*. London: Routledge.

[5.] Fire Sector Federation (2022). *Developing a National Strategy for Fire Safety: Seeking a framework to effectively manage fire risk to help achieve a sustainable and safer society*. Available at www.firesectorfederation.co.uk

[6.] Murphy, P. and Lakoma, K. (2023). How did fire and rescue services in England respond to the COVID-19 pandemic? *International Journal of Emergency Services.* DOI: 10.1108/IJES-10-2021-0070.

[7.] National Audit Office (2011). *The failure of the FiReControl project*. London: The Stationery Office.

[8.] Wankhade, P., Heath, G. and Murphy, P. (2023). Re-Imagining Ambulance Services through Participation and Deliberation. In Diamond, J. and Liddle, J. (eds.) *Reimagining Public Sector Management – a new age of Renewal and Renaissance?* Emerald: Bingley.

[9.] Wankhade, P., Stokes, P., Rodgers, P. and Tarba, S. (2020). Work intensification and Ambidexterity - the Notions of Extreme and 'Everyday' Experiences in Emergency Contexts: Surfacing Dynamics in the Ambulance Service. *Public Management Review*, 22(1): 48-74.

[10.] National Audit Office (2017). *NHS Ambulance Services.* London: The Stationery Office.

[11.] Carter, P. (Lord) (2018). *Operational productivity and performance in English NHS Ambulance Trusts: Unwarranted Variations*. London: The Stationery Office.

[12.] Turner, J. et al. (2006). *The Costs and Benefits of Changing Ambulance Service Response Time Performance Standards*. Medical Care Research Unit. School of Health and Related Research. Sheffield: University of Sheffield.

[13.] Heath, G., Radcliffe, J. and Wankhade, P. (2018). Performance Management in the Public Sector: The Case of the English Ambulance Service. In: Harris, E.(ed.). *The Routledge Companion to Performance Management and Control.* London: Routledge.

[14.] Bevan, G., and Hood, C. (2006). What's measured is what matters: Targets and gaming in the English public health care system. *Public Administration*, 84 (3): 517-528.

[15.] Wankhade, P., Heath, G. and Radcliffe, J. (2018). Culture change and perpetuation in organisations: evidence from an English ambulance service. *Public Management Review*, 20(6): 934-948.

[16.] Heath, G., and Wankhade, P. (2014) "A Balanced Judgement?": Performance Indicators, Quality and the English Ambulance Service; some

issues, developments and a research agenda. *The Journal of Finance and Management in Public Services* 13 (1): 1-19.

[17.] House of Commons Public Accounts Committee (2017). *NHS Ambulance Services.*

[18.] Heath, G., Wankhade, P. and Murphy, P. (2021). Exploring the wellbeing of ambulance staff using the 'public value' perspective: opportunities and challenges for research, *Public Money & Management*, DOI: 10.1080/09540962.2021.1899613.

[19.] Granter, E., Wankhade, P., McCann, L., Hassard, J. and Hyde, P. (2019). Multiple Dimensions of Work Intensity: Ambulance as Edgework. *Work, Employment and Society*, 33 (2): 280-297.

[20.] NHS England (2017). *The New Ambulance Standards*. Available at: https://www.england.nhs.uk/wp-content/uploads/2017/07/new-ambulance-standards-easy-read.pdf

[21.] NHS Wales (2018). *A Review of Calls to the Welsh Ambulance Service Categorised as Amber*. Emergency Ambulance Services Committee, NHS Wales: Cardiff.