GP roles in emergency ambulance services in the UK:
a qualitative realist study

Alex Burrell and Matthew Booker

Abstract

Background

Demand on emergency healthcare services is increasing. Utilising GPs in emergency ambulance services (EASs) may be effective at reducing avoidable conveyances to emergency departments and releasing emergency ambulances for high-acuity cases. There is limited evidence on models of GP EAS roles in the UK.

Aims

To describe the current provision of GP EAS roles and to develop a provisional explanatory programme theory.

Design & setting

Qualitative realist interview study involving professionals with detailed knowledge and experience of GPs working in EASs across the UK.

Method

Potential participants were identified and approached by research and development teams at ambulance trusts. Interviews were semi-structured, with questions developed, piloted, and refined by the research team. Interviews were conducted online with 27 participants, with a realist approach taken to data analysis to explore the mechanisms by which GP EAS roles produce their intended outcomes in different contexts.

Results

The GP role is predominantly to undertake enhanced remote patient assessment following an initial algorithmic triage, aiming to provide the most appropriate level of care. While optimising the clinical response to individual callers, this also serves a system-level function by protecting ambulance resources to support timely responses to high-acuity patients. The mechanism behind GP triage was explored through existing middle-range theories around risk individualisation — the process of translating organisational risk appetite to individual patient contacts. This helps the ambulance service to make 'braver' decisions, namely, those involving non-conveyance, alternatives to conveyance, or lower-acuity responses. GPs do this effectively due to their seniority, broad clinical knowledge and experience, approach to risk and uncertainty, ability to practise outside guidelines, consultation and communication skills, and system awareness.

Conclusion

GPs in EASs serve both individual patients and the system by individualising organisational approaches to risk and resource management.

Keywords

community care; intermediate care; primary care; qualitative research; emergency medical services

Introduction

Emergency services in the UK continue to face rising demand: December 2025 had the highest volume of incidents of any month to date for emergency ambulance services (EASs) with 846 000 incidents, and 2025 had over a million more incidents than 2022 at 9 312 000.[1] Telephone calls to the ambulance service via 999 are initially processed by a non-clinical call handler using an algorithmic triage tool to determine the disposition category, which ranges from category one (life-threatening event) to category five (non-ambulance disposition). Cases can also be transferred from 111 when they are deemed to require an emergency or urgent ambulance response, again determined by a call handler using an algorithmic triage tool.

The majority of ambulance workload is made up of cases that are not immediately life-threatening injury or illness. There is an increasing policy shift to manage cases remotely to improve hear-and-treat rates — the proportion of cases managed remotely without an ambulance being dispatched — and to increase access to senior decision-making support in emergency operations centres (EOCs), where 999 calls are handled.[2] Many situations could potentially be managed by GPs,[3] senior clinical decision makers with expertise in generalist undifferentiated care in a community setting, but approximately half of cases are conveyed to emergency departments (EDs).[2]

Utilising GPs in EASs may be an effective way to reduce avoidable ED conveyance and manage acute

How this fits in

Ambulance services continue to face rising demand, much of which could be managed by a GP. Utilising GPs in ambulance services may reduce avoidable emergency department conveyance and manage cases in the community. Five ambulance services currently deploy GPs with the dual aims of providing the most appropriate care to individual patients while also protecting ambulance resources. GPs can do this by individualising organisational risk, thereby enabling ambulance services to make 'braver' decisions.

primary care presentations in the community in line the with the *Fit for the Future: 10 Year Health Plan for England* and the *Urgent and Emergency Care Plan 2025/26* in England, and similar long-term plans in the devolved nations.[2,4–7] Our previous systematic review on this topic[8] found that in interventional studies deploying GPs in EASs in England, the likelihood of ED conveyance and hospital admission was reduced in selected lower-acuity cases, although it was unclear whether this was due to GP involvement or case selection. However, the extent of GP EAS utilisation in the UK remains unclear, as do the different service models and how they are intended to work. This study, therefore, aimed to:

- describe current UK provision of GP EAS roles; and
- develop a provisional explanatory programme theory of GP EAS roles based on context–mechanism–outcome configurations (CMOCs).

Method

A qualitative realist interview study was conducted and is reported in line with both Consolidated Criteria for Reporting Qualitative Research (COREQ) guidance[9] and Realist and Meta-narrative Evidence Syntheses: Evolving Standards (RAMESES) II guidance for realist research.[10]

Sampling strategy

Inclusion criteria were professionals with detailed knowledge and experience of GPs working in EASs. All 14 UK ambulance trusts were approached via their research and development (R&D) teams to confirm if they had GP EAS roles. Potential participants at trusts that either had GP EAS roles, or did not but still wished to participate, were then identified and approached by ambulance trust R&D teams with a participant information sheet generated by the research team. Interested participants then contacted one of the authors and interviews were arranged. There was no pre-determined sample size as it was unknown before starting the study how many ambulance trusts had GP EAS roles, so recruitment continued until at least one participant from all trusts that reported having GP EAS roles had been interviewed. If there were many expressions of interest from an individual trust, recruitment was stopped when it was felt there was adequate ontological depth from that specific service.

Data collection

Qualitative interviews were used as a method suited for gaining rich and detailed information. Interviews were semi-structured based on a topic guide that was developed, piloted, and refined by the research team (see Supplementary Information S1). Developing theories were put to interviewees as the process went on to refine and explore initial programme theories. Interviews were all conducted by the same author via Microsoft Teams.

Data processing

Interviews were recorded and transcribed using Microsoft Teams; transcripts were subsequently checked, corrected, and anonymised by the author who conducted the interviews. The original recordings were then deleted and the transcripts were moved into NVivo (version 14) for analysis.

Data analysis

A realist approach was taken to data analysis to understand what works, for whom, and why, in line with guidance on evaluating complex interventions.[11] Interviews were read and re-read by both researchers to ensure familiarisation with the data. Data were initially coded into inductive thematic areas; key quotations and passages that provided causal insight into contexts or mechanisms underpinning GP EAS work were highlighted. The interviewing author performed initial coding, with the other researcher reviewing the codes and the supporting data.

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From the identified thematic areas, candidate CMOCs were developed and refined by both researchers, then further condensed into a final set of configurations. Middle-range theories around organisational risk and risk translation — the redistribution of responsibility for risk[12] — were then used and applied to help develop the CMOCs into a provisional programme theory. These theories were found through a literature search exploring key concepts and theories on risk in admission-avoidance schemes based on one of the researcher's previous work in this area;[13] they were chosen as they directly related to many of the CMOCs and helped to bridge the narrative gap between CMOCs and provisional programme theory.

Research team and reflexivity

The interviewing researcher is an academic GP working clinically as a salaried GP in in-hours primary care with no role in EAS; the other researcher is an academic GP working clinically as a deputy medical director of an ambulance service and in a GP EAS role. Interviewees were aware that both researchers were GPs. Prior to beginning the interviews, initial theories based on clinical experience and the authors' previous review on this topic were discussed and explored.

Results

All 14 UK ambulance trusts were approached to participate. Seven services did not participate as they had no current GP EAS models. Seven

ambulance trusts did participate; of these, five had current GP EAS models, one was delivering the 111 clinical advice service as an ambulance service, and one had no current GP EAS model but chose to participate.

In total, 27 interviews were conducted between June and October 2025. Participants included GPs working in EASs, paramedics, advanced paramedic practitioners, specialist paramedics, medical directors, deputy medical directors, and staff working in quality and safety governance. At least one GP and one medical director or associate medical director was interviewed at each trust that reported GP EAS models. To preserve participant anonymity in this small field, we do not report individual participants' professional background or current role alongside the models in which they were involved as that would render the individuals easily identifiable.

Box 1 shows the GP EAS models delivered by ambulance trusts, with a breakdown of service structure and provision. Items reported are the key domains of difference that differentiate the models. Some services were specifically brought in at a set time; others did not have a set start date but emerged organically, sometimes over several years. We have not reported numbers of GPs in each service to avoid inaccuracies as it was not possible to obtain precise information about this from every service.

Services 1A and 2 are broadly similar, with GPs based in EOCs with other clinical ambulance staff. Their role is primarily advanced triage, to remotely assess whether a patient is in the appropriate disposition category and to determine whether there is an alternative outcome to ambulance disposition and ED conveyance. They are not able to prescribe, and some element of care is likely to be delivered by someone else; for example, advising the patient to self-convey to ED. They provide in-person advice to other clinical support desk staff and telephone advice to crews at scene.

GPs in services 3 and 5, while doing some advanced triage, are also remote consulting: they can prescribe and are attempting to complete and close the care episode as the end point of care. They provide telephone advice to crews at scene but are remote so do not provide in-person advice to other clinical support desk staff.

Service 1B is a GP-staffed ambulance car that assesses and treats patients in person: they have point-of-care tests, equipment for interventions such as cannulas and intravenous fluids, some medications to give directly to patients, and FP10 forms to provide prescriptions. They also offer telephone advice to crews at scene.

GPs in these services either have complete discretion over the cases in which they get involved (1B, 2, and 3) or are primarily asked to focus on specific areas (geographical or dispositional, for example, category two calls), according to operational need (1A and 5).

Service 4 is solely an advice line for crews at scene aiming to support them in finding alternatives to ED conveyance.

Supplementary Box S1 shows the 21 finalised CMOCs that are discussed below by thematic area with key supporting quotations. The outcomes identified are from varied perspectives in line with realist theory: outcomes follow from mechanisms acting in contexts;[14] they are not universal and can differ from system and individual perspectives.

Organisational drivers (CMOCs 1–3)

CMOCs 1–3 explain how wider health system pressures and cultures create a need for GP EAS roles.

Ambulance trusts have finite resources but are expected to provide care on demand to patients of all levels of acuity, and are a fallback option when other services are overwhelmed by demand. They also receive a significant proportion of cases from 111, many of which are felt to be overtriaged and could have been managed either in usual primary care or by an alternative non-emergency service. There is pushback from usual primary care services and, in some areas, a blanket ban on ambulance staff contacting in-hours general practices meaning that cases that could be managed in primary care or benefit from GP input are unable to be handed over to a more appropriate service. Primary care is seen to be struggling to meet demand, with real and perceived access challenges; as a fallback option, this demand spills over into ambulance services either directly or via 111, with patients going through *'the churn'* (Participant [P]9, GP) of being unable to access care from multiple different services.

In order to provide timely care to the highest-acuity cases requiring immediate medical care, ambulance services have to be able to manage some cases without sending an ambulance, by sending a lower-category response, closing cases on scene, or arranging direct admissions to avoid long waits to offload patients at EDs. They therefore need to balance the need to provide the most appropriate level of care for each individual case with the need to protect and manage ambulance resources across the organisation; this involves an element of risk. The balance between these two priorities is determined by organisational risk appetite, but this also needs to be carried out at an individual level:

'I think, although we're having a transaction with the patient and we are trying to do everything we can for that patient at that time, we do have a responsibility for the wider organisation. We are … really trying to keep the rest of the show on the road and so not having … ambulances tied up with patients unnecessarily or inappropriately is … really quite significant.' (P1, GP, CMOC 3)

Among paramedics, there is a cultural fear of regulatory and disciplinary action that can lead to practice that reduces personal risk at the expense of the bigger picture: *'you don't get sacked for taking someone to hospital'* (P15, paramedic). While this is changing, it is still present and can make operationalising organisational risk difficult. Although it minimises risk for an individual patient, on a system level if every case is sent a double-crewed ambulance and conveyed to ED, the ambulance service will be unable to meet demand and overall risk will increase:

'I think, as a paramedic, we work on the basis that "right, I'll start with the worst-case scenario and work back from there". And I think that's our mentality; we're always waiting for something

Box 1. GP EAS models delivered, by ambulance trust

Ambulance trust	Main physical location	Primary function[a]	GP employment model for clinical roles	GP cases clinically audited	Primary method of case selection	GPs able to prescribe	Health professional calls	Crew advice calls	Mentoring and/or education of other ambulance health professionals
1A	Emergency operations centre	Advanced triage	Combination of substantive and bank	Yes	Primarily asked to focus on specific areas according to operational need	No	Yes	Yes	Yes
1B	Response vehicle	In-person assessment and management	Combination of substantive and bank	Yes	GP choice	Yes	Yes	Yes	Yes
2	Emergency operations centre	Advanced triage	Bank	No	GP choice	No	Yes	Yes	Yes
3	Remote hub and from home	Advanced triage and remote consulting	Employed through non-ambulance organisation	No	GP choice	Yes	Yes	Yes	No
4	Remote hub	Crew advice calls	Bank	Yes	Crew call advice line	No	No	Yes	No
5	Remote from home	Remote consulting	Combination of substantive and bank	Yes	Primarily asked to focus on specific areas according to operational need	Yes	No	Yes	No

[a]*Advanced triage: GPs do not prescribe and some element of care likely to be delivered by someone else. Remote consulting: attempting to complete and close the care episode as the end point of care. GP EAS = GP emergency ambulance service.*

to go wrong, and I think there is still, historically, a fear factor that, that "if I make the wrong decision that that's it, my career is going to be over".' (P17, paramedic, CMOC 1)

Why GPs (CMOCs 4–12)

CMOCs 4–12 explain what it is about GPs that means they can facilitate positive outcomes for the ambulance service.

For the ambulance service to operationalise organisational risk, individual clinicians need to approach cases in a way that is in keeping with the service's need to protect and manage its resources. GPs can individualise organisational risk through several mechanisms. They are skilled in communication, consultation skills, and shared decision making. They can clearly explain the risks and benefits of different outcomes, explore and manage expectation, and come to a shared decision with patients and carers. This reduces the perceived individual risk because the patients are actively involved in making decisions, but also means patients are more likely to be open to outcomes that are not an emergency ambulance:

'I think the thing we do well is communication with the patient. We're good at negotiating and coming up with a shared management plan and … I do believe really strongly that … if you give a person … their options and you discuss the pros and cons in normal everyday language … it's their risk to take, not yours. You present the facts and the person makes the decision what's right for them. And that's what … we are good at as GPs.' (P22, GP, CMOC 4)

As doctors at the top of the perceived medical hierarchy, GPs can overcome barriers that other health professionals and patients may experience when interacting with the healthcare system. This is not only because they are empowered and confident to do so, but also due to a level of deference from within the system. For example, patients may have been unable to access an appointment in primary care, but the ambulance GP is able to speak to the duty doctor and get them booked in. Similarly, with health professional calls that may have been overtriaged or did not need an ambulance, an ambulance GP is able to have a peer-to-peer conversation about alternatives to conveyance. This allows them to affect the outcome of cases that other ambulance staff may not have been able to do. This also applies to conversations with patients who are

more likely to accept an outcome from a doctor than another health professional:

'GPs have got far more gravitas than the humble APP [advanced paramedic practitioner]*, and they can get patients booked into GP surgeries as opposed to if I said, "well, I'm a paramedic basically, I'd like this patient assessed by a GP'' … the GP'll go "no chance … we're full, we're rammed, you're never coming in", whereas a GP can squeeze them in.'* (P12, advanced paramedic practitioner, CMOC 5)

Being a senior clinician also enables GPs to support colleagues to make 'braver' decisions; having the support of a senior colleague reduces the perceived risk as it is shared and, effectively, the risk responsibility is taken up by the GP:

'… there was generally a feeling that having that senior person in there could help us to make some slightly more risky decisions, be a bit braver I suppose.' (P17, paramedic, CMOC 10)

GPs are *'consultants of the community'* (P24, GP), with a broad knowledge in undifferentiated care. As they can work through differential diagnoses and likely outcomes of cases, they increase their accuracy and thereby reduce real and perceived risk. This applies not only to alternatives to ambulance disposition but also to patient safety, uptriaging those patients who are in a lower category but are picked up by the GP and allocated a higher-category disposition:

'… we don't just downgrade. We have, and we routinely do, not many, probably about 15%, get upgraded based on … the knowledge that we've taken for that patient. Again, we're delving into more detail, aren't we? We're trying to get [to] *the bottom* [of the issue]*.'* (P16, GP, CMOC 6)

This knowledge also means that GPs are comfortable practising outside of guidelines and protocols as they can explain and justify their decisions with clear clinical reasoning. They are therefore able to avoid ambulance or ED outcomes when clinicians who are more restricted by guidelines may have struggled. They can also support their colleagues to do the same; head injuries in patients on anticoagulation therapy was a commonly cited example:

'Your GPs are very good at going "it's a guideline, here's my risk assessment. I'm not going to do that", and the head injuries and blood thinners is the perfect example.' (P15, paramedic, CMOC 8)

GPs are specifically trained in managing risk and uncertainty. They are comfortable making decisions with limited information because they understand risk, can share this with patients, and clearly safety-net should things go wrong. They can support colleagues to do the same thereby increasing organisational risk tolerance and supporting the system to continue to function:

'And I suppose the biggest thing that I personally think we do … is that we manage risk very well … we tolerate uncertainty and we manage risk well. And we also, unfortunately, I feel … we're mitigating and minimising harm that is inevitable in a system … that is failing. And we're able to do that more than other people because of our ability to manage and tolerate risk.' (P3, GP, CMOC 9)

During their training and potentially in their post-training career, GPs have worked across different healthcare settings from the community to ED to inpatient medicine and surgery. In usual primary care, they are the interface between these services. They understand how each component of the overall health system functions and how to navigate it including specific local services, enabling them to identify and access alternative pathways for patients:

'… predominantly, it's probably around about cat [category] *two, where it's not a case of they're obvious candidates for referral right from the start. They need a little bit more scratching, and probably a little bit more background knowledge around what services are available to be able to move them into. And I think that's what the GPs bring for us.'* (P17, paramedic, CMOC 11)

Conditions for success (CMOCs 13–21)

CMOCs 13–21 explain the key factors that determine the success, or otherwise, of GP EAS roles.

When GPs work in the same physical space as other ambulance staff, usually in the EOC, and are integrated into the ambulance service in other ways, for example, through their uniform, they are easy to access and perceived barriers are reduced. This enables more interactions with other staff thereby supporting and influencing a wider range of cases and clinicians:

'But there's something about them being in the … middle of it, in the thick of it, same uniform, they're part of that group, rather than being like a, a bolt-on at the side. When it works really well is when they're in the middle of it and they're just part of that MDT [multi-disciplinary team]*.'* (P15, paramedic, CMOC 13)

Co-location also facilitates informal discussions and relationship building, which in turn allows knowledge exchange, support, and mentoring. This adds value beyond the individual cases managed, and supports the development of the wider ambulance team. In services that cover large geographical areas, however, working remotely or in separate spaces outside of fixed EOC locations is an important option to ensure adequate recruitment:

'It's vast, and so it's probably about attracting and securing the workforce as much as that there's not benefits to having people co-located.' (P10, quality and safety governance, CMOC 13)

Experienced GPs are likely to perform better in these roles and are specifically recruited: through their cumulative exposure to undifferentiated cases, pathologies, and outcomes, they are generally more comfortable with risk and uncertainty, which increases the likelihood of a resource-protecting outcome:

'… it takes a long time to train to be a GP and then it takes a long time, once you are a GP, to be a good one in my opinion … most of our GPs have been in practice at least 5 years … you're taking folk who've got a good appreciation of risk, have got a lot of experience of undifferentiated presentations … and they can do that quickly, efficiently, safely within an ambulance context.' (P18, GP, CMOC 14)

The level of autonomy over case selection affects how GPs are utilised.

When they are able to select cases freely, including from those not navigated to the clinical support desk, they are able to use their clinical judgement to decide which cases they are most likely to be able to impact; this increases their chances of a positive outcome, which may be resource protection or uptriage:

'We are simply given autonomy to do what we think is going to add the greatest value in whatever we perceive it — safety, the clinical appropriateness of the old dears who probably don't need admission — because, even though they're a cat [category] *two, they probably still don't need ED, or the upgrades of the cat fours or the cat threes.'* (P4, GP, CMOC 16)

There are periods where specific directions are given, for example, in geographical areas of high demand or when there are a high number of cases from 111. Some services give GPs a limited set of tasks, such as crew advice calls only. This gives the ambulance service more control over where they want specific impact from GPs, but may limit their wider effectiveness.

The ambulance service is driven by key performance indicators. Measures that GPs are expected to improve are hear-and-treat percentages and category two response times; in some services, there is an expectation to manage a certain number of cases per hour. There is a balance between proving specific quantifiable outputs and the wider impact that GPs have on the service, and how this can be measured to illustrate value:

'So we have to increase our hear-and-treat capabilities because that means we're sending less ambulances to those patients and we're then ... we can send the ambulances to the more acutely unwell people that need us more. So that's the remit is just hear-and-treat the best you can, but there's also obviously the ... soft data is go around the room, upskill the team ... be available for advice, be available to talk to people because that increases their hear-and-treat capability ... if you increase someone else's knowledge ... you will get a better productivity or performance out of them as well.' (P2, specialist paramedic, CMOC 17)

This is particularly true in services where funding for GP roles comes from short-term pots of money with no long-term financial plan and GPs are on bank contracts. Funding sources of GP EAS roles are varied: some are funded from the core ambulance EOC budget, others by integrated care boards or health boards:

'The reason they're bank — let's not beat around the bush — is that ... there's no guaranteed recurrent funding ... I'm still hopeful that they'll manage to prove the value at some point and we'll have some kind of regular contract.' (P15, paramedic, CMOC 21)

Prescribing enables GPs to be the end point of care for an individual patient contact, to work as a *'fully enabled'* (P6, GP) GP. Services in which GPs prescribe either involve in-person patient contact or have brought in prescribing specifically to be able to definitively manage cases and avoid further onward contacts in order to benefit both the patient and the wider health system despite this not being a usual function of the ambulance service:

'I'm not big on red lines and, you know, "that's not what we're for" sort of thing, because it's, most people, the vast majority of people that phone 999 are really worried about something ... and if we can help them in whatever way, then we should.' (P18, GP, CMOC 18)

Conversely, for services where GPs are based in the EOC and performing advanced triage and supporting colleagues, there is limited benefit to prescribing as they are not intended to be the end point of care and it is costly and complex for an ambulance service to facilitate, as well as time consuming for individual GPs:

'... what I'm really conscious of is that I'm ... rarely the end point of care ... there's a few that I would, that would stick with self-care, [and] *don't need any help today, but they are in the real minority. So I'm always passing them to someone else.'* (P4, GP, CMOC 19)

There is also concern about workload duplication and shift: if EAS GPs are fully enabled and able to prescribe and be the end point of care for cases that a GP can manage, they are essentially duplicating existing services — be that regular primary care, out-of-hours care, or urgent care — and patients may seek non-emergency care via the ambulance service. If they are unable to prescribe, but the patient requires a prescription, GPs can facilitate this from the appropriate service:

'... you feel slightly impotent in terms of what you can do, but one of my colleagues would argue that there's a real danger of workload shift, because if we set up a rapid-access GP service that's accessed by 999 to treat your cystitis, then we're destined to being flooded.' (P3, GP, CMOC 19)

Discussion

Summary

To our knowledge, this is the first study exploring GP EAS roles across the UK. Five EASs currently have GP services with the dual aims of providing the most appropriate care to individual patients while also protecting ambulance resources. GPs are able to do this by individualising organisational risk thereby enabling the ambulance service to make 'braver' decisions.

Strengths and limitations

With the support of the National Ambulance Research Steering Group, R&D teams from each individual ambulance trust were invited to participate allowing national coverage. Participants were from a range of professional backgrounds and roles including frontline clinicians and medical directors. Given the uncertain funding and futures of some GP EAS roles, the services described may be different post-publication of this study; however, using a realist approach means the programme theory developed can be applied to alternative or future services.

Comparison with existing literature

Risk is the key concept in GP EASs. The middle-range theory of risk individualisation comes from literature on organisational risk and risk translation.[12] Risk individualisation is the shifting of organisational responsibility to the individual, in this case the need to protect ambulance resources with non-ambulance, lower-acuity ambulance, or non-conveyance outcomes. In theory, this means that

individuals rather than organisations are accountable for risk taken: our programme theory explains why GPs can tolerate this and support colleagues to do the same. Some ambulance services had previous failed attempts at providing GP EASs when the GPs deployed were less tolerant of risk. There is evidence that individual doctor risk appetite affects outcomes in EDs[15–17] and in primary care.[18–20] Older and more-experienced GPs have been shown to have higher tolerance for uncertainty,[21] in keeping with our findings.

A realist synthesis on hospital admission avoidance initiatives (HAAIs)[13] found that health professionals' ability to make decisions that avoid hospital admission are shaped by their capacity to assess and respond to complexity and uncertainty, and that patients are more likely to accept HAAIs when they are supported through clear communication and shared decision making; both of these findings were echoed in our study. Similarly, organisations that supported flexible, collaborative, and person-centred approaches empowered staff to manage complex or high-acuity cases in the community. When GPs in EASs were given free reign and flexibility to choose cases and support colleagues, they were felt to be more effective both as an individual and in improving organisational performance and risk tolerance.

This work builds on a growing body of literature on alternative workforce provision in same-day urgent and emergency care, including GPs in EDs[22] and paramedics in primary care.[23–25] In comparison to GPs in EDs, GP EAS roles were developed from individual ambulance services as opposed to a national directive, but pressure to improve specific metrics — in particular, hear-and-treat rates — did play a part. The success or otherwise of GPs in EDs was found to be largely related to streaming processes that were less of an issue with GPs in EASs, who often had flexibility to pick and choose cases where they felt they could add value. GP EASs, particularly those models with GPs co-located in EOCs, also placed more of an emphasis on the impact on colleagues rather than individual case management, which was not observed in GPs in EDs. Whether in EDs or EASs, GPs were being used at least in part to cope with high levels of demand of cases that were not emergencies.

Implications for research and practice

For those ambulance services with existing GP EAS models, this study provides insight into how and why these services work. It also offers insight into currently unmeasured benefits including how GPs affect staff around them: for GP EAS roles to obtain substantive long-term funding, evidencing the unmeasured benefits or being able to quantify those not related to key performance indicators could be crucial. For ambulance services without GP EAS models, the programme theory generated can be used to design and develop new roles. Further research exploring the case mix of GP EAS work, system impact, cost effectiveness, and patient experiences would be beneficial.

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Ethical approval

Favourable ethical opinion was issued by the University of Bristol Faculty of Health Sciences Research Ethics Committee (review reference number: 2025-22646-25672). Approval was granted by the Health Research Authority and Health and Care Research Wales (Integrated Research Application System project identification number: 355346). Approval from individual ambulance trusts' research and development teams was obtained as needed for participating trusts.

Provenance

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Competing interests

The authors have declared no competing interests.

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