Lay Summary

Full title: Senior clinical and business managers' perspectives on how different funding mechanisms and models of employing General Practitioners in or alongside Emergency Departments influence wider system outcomes: Qualitative Study (full article here)

Lay title: What do senior managers of Emergency Departments say about their experience of funding and staffing a GP service within or alongside their department.

More and more people are going to Emergency Departments (EDs). Health policy in England promotes the use of GPs in and alongside EDs to relieve the growing pressure that this increased attendance is causing.

In this study we interviewed 31 senior managers of EDs who had experience of managing a GP service within the ED. We asked them about:

- their views on the funding arrangements for putting this policy into practice
- their experiences of success and challenges in introducing GPs alongside EDs

The managers felt success depended on:

- funding being well-organised and from one source
- the right staff and working arrangements being in place
- proper account being taken of the demands and needs of the local population.

The systems for applying for and receiving funding were seen as complicated especially where the GP worked separately in the emergency department rather than as part of the ED team. It worked best when health and community care services worked together to fund services. It was important to use local and experienced GPs. There were problems when private locums were used.

The study provides information to help make the best decisions on how to use GP in EDs in future.

Lay Summary:

Full title: Emergency department clinical leads' experiences of implementing primary care services where GPs work in or alongside emergency departments in the UK: a qualitative study. (full article here)

Lay title: What do those in charge of Emergency Departments say about their experience of introducing GPs to work in or alongside them at the hospital.

To manage pressure on Emergency Departments (EDs), hospitals have been encouraged by NHS England to set up services where patients coming to the ED with non-urgent problems are sent to see GPs working in or alongside the ED. Hospitals have set up different arrangements for this. This study describes what the people in charge of the EDs said about these different arrangements.
We interviewed 21 leaders of ED's in England and Wales.
Where there was a clearly separate primary care team, waiting times and time to be treated were improved for all patients. This was done by the primary care team seeing non-urgent patients quickly, using fewer investigations and enabling ED doctors to focus on more seriously unwell patients.

Difficulties in providing this service included:

- low or varying demand for primary care
- difficulties in recruiting GPs
- lack of space
- lack of funding
- how easy it was to see a GP in the community
- agreeing how everyone would work together
- ensuring the right decisions were made about who a patient needed to see.

Where GPs worked as part of the ED team, there were successes in managing demand for both emergency and primary care and in reducing admissions to hospital.

Taking a 'one size fits all' approach to how the service should run was not useful for all EDs. Policy makers and funders of services should consider the different ways GPs can be used to manage local demand. They should also take into account other local factors such as:

- ability to recruit and retain GPs
- year on year funding
- the need for clear working arrangements and procedures
- space
- training, support and guidance for all staff
- how many people come to the ED with non-urgent problems.

Lay Summary:

Full title: Diagnostic error in the emergency department: learning from national patient safety incident report analysis. (full article here)

Lay title An examination of past patient safety reports to look at previous errors made in diagnosing patients attending Emergency Departments

Mistakes in diagnosis occur more frequently in the Emergency Department (ED) than in regular in-patient hospital care. The types of mistakes made in hospital EDs from 2013 to 2015 were studied to look for patterns and ways the errors could be reduced.

Information on errors in diagnosis in EDs were taken from a national database of safety incidents. This was then analysed to identify what had happened, what factors might have caused the error and what harm had been caused to the patient.

The results showed that in 86% of cases the diagnosis had been delayed and in 14% the diagnosis was wrong, with one in seven cases resulting in severe harm or death. Most errors were made in diagnosing fractures. Mistakes were also made in cases of heart attacks and bleeding in the brain.

Possible causes of delayed and wrong diagnoses were mostly human mistakes including inadequate skills or knowledge of staff and not following recognised procedures. These led to poor assessment, failure to order the right tests and interpreting the results of tests incorrectly.

Better support for a doctor in assessing a patient's condition is needed in order to reduce errors in the future. Possible improvements could be developed such as standardised checklists, structured reporting and improvements in equipment used in investigations. These would need to be tried out and evaluated in the ED setting.

Lay Summary:

Full title: Current provision of general practitioner services in or alongside Emergency Departments in England. (full article here)

Current ways in which general practitioner services are working in or alongside emergency departments in England

Emergency departments (EDs) in the UK have faced more demand than ever with waiting times at record levels.

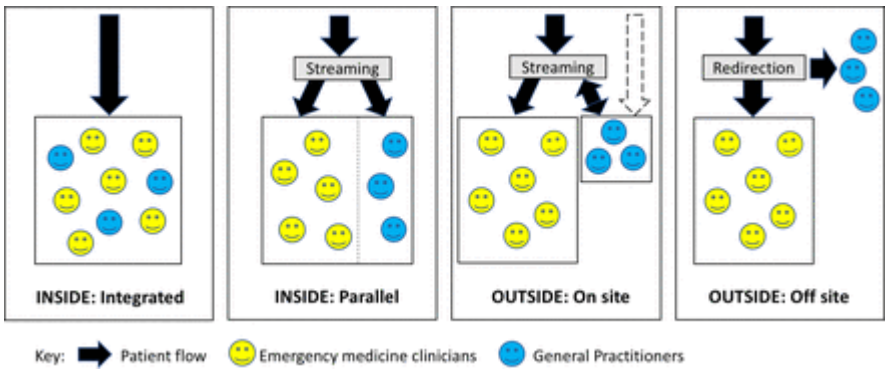
It has been estimated that between 15% and 40% of patients attending the ED could be treated by general practitioners (GPs).

In 2017 the NHS in England recommended that Emergency Departments (EDs) in hospitals work closely with GPs in order to cope with increased demand. This new development was supported by government funding.

No models were suggested as to how the GPs should work either in or alongside EDs so a variety of solutions to the problem developed, but little was known about these, and about which models worked best.

We collected Information from 163 large EDs (92% of all those in England and Wales) to find out which models of GPs working with EDs existed and how well they were working. The information was collected from on-line surveys, interviews, case studies and publicly available information sources. Information was collected at two time points: September 2017 and December 2019.

The different models of how GPs worked with EDs were then put into categories shown in the diagram below:



(Cooper A, Edwards M, Brandling J, et al Taxonomy of the form and function of primary care services in or alongside emergency departments: concepts paper Emergency Medicine Journal 2019;36:625-630.)

In 2017 most EDs were already working with GPs. Even more started working with GPs during the period studied and there was a rise in the number of parallel models and fall in the number of integrated models which may be explained by the additional funding provided at

this time. This funding allowed more EDs to make changes to buildings in order to set up parallel services.

More research still needs to be done however to find out which of the various models are the most effective.

Lay Summary

Full title: Learning from diagnostic error to improve patient safety when GPs work in or alongside emergency departments: incorporating realist methodology into patient safety incident report analysis. (full article here)

Lay title: Learning from problems in diagnosis to improve patient safety when GPs work in or alongside emergency departments

GP services have been introduced in or alongside Emergency Departments (EDs) to help cope with increased patient attendance in recent years. However, we need to have evidence that these models of service are effective and safe.

We identified very few problems in diagnosis from GP services in or alongside emergency departments from patient safety incident reports and Coroners' reports on patient deaths. However, from the reports we were able to describe common factors that contributed to errors. This information was combined with earlier research findings to produce theories to explain how and why these problems occurred.

Initial priority areas identified for potential improvement included:

- Difficulty in identifying which patients should see GPs rather than ED doctors
- Being unclear which diagnostic tests should be used by GPs
- Misinterpreting results from diagnostic tests by GPs
- Poor communication and referral pathways between the emergency and GP services.

Some conditions were described more often in these reports and therefore perceived as higher risk. These were musculoskeletal injury, chest pain, headache, calf pain and unwell children.

We identified ways to minimise problems with diagnosis when GPs work in EDs:

- When seeing a patient for the first time, use a standard initial patient assessment process tailored to the individual ED, so that patients are sent to the most appropriate clinician
- Provide more information to help those doctors who make clinical decisions in the high-risk conditions mentioned above
- Make sure that computer systems throughout emergency and GP services are compatible to improve communication
- Improve communication and referral pathways between emergency and GP services

These theories will need to be tested and evaluated by further research in EDs before they can be issued as firm guidance for good practice.

Lay Summary

Full title: Patients' experiences of attending emergency departments where primary care services are located: qualitative findings from patient and clinician interviews from a realist evaluation. (full article here)

Lay title: Patients' experience of attending emergency departments where primary care services are located.

Primary care services have been introduced in or alongside Emergency Departments (EDs) to help cope with increased patient attendance in recent years. We need to know more about what the experience of patients is when attending these Emergency Departments. This will help us assess the quality of care and identify ways to make it better.

We interviewed patients and staff members, got feedback from a wide group of stakeholders, and visited and observed at Emergency Departments to find out how patients felt about being directed to see a primary care clinician (e.g. a GP) at the emergency department and the care they received.

We found that patients had no expectations or preferences for which type of clinician they were seen by. Generally, patients found it acceptable to be seen by a GP. Both staff and patients reported that patients generally found being directed to a GP acceptable if

- they felt their problem was dealt with suitably
- they were seen and treated in a timely manner
- staff clearly communicated the need for any investigations
- staff explained how the results of investigations contributed to decision–making and treatment plans

Service providers can expect patients to be generally satisfied with their experience of being streamed to and seen by GPs working in Emergency Departments. If service providers decide that providing primary care services at their ED is the right thing to do in their local circumstances, they need to ensure clear communication between patients and staff and seek feedback from patients on their experiences of the service.

Lay Summary

Full title: Challenges of recruiting emergency department patients to a qualitative study: a thematic analysis of researchers' experiences. (full article here)

Lay title: Researchers' experiences of the challenges faced in recruiting and interviewing patients for a study on patients' experiences in hospital Emergency Departments.

Currently there are several different ways in which hospital emergency departments use GPs to help reduce pressure from increased patient demand. Our research tried to find out which models for organising the service work best from a patient's viewpoint.

We experienced some challenges in recruiting patients to take part in interviews for this research.

This paper looks at all stages of patient recruitment and identifies the challenges faced from identifying eligible patients through to engaging them in interviews. The results were used to make recommendations on how best to successfully recruit patients to this type of study in an emergency department.

Things which made recruitment difficult were:

- Patients needed to meet a narrow set of conditions to take part in our study
- The way in which hospitals kept records made it complicated and time-consuming to find patients to interview
- Research nurses did not always have time to help us
- Trying to recruit patients by post rather than face to face

Suggestions made by the public members of the research team, which we introduced to improve the recruitment of patients to the study, included:

- Increasing the number of patients invited to take part
- Offering a shopping voucher to those interviewed
- Using hospital headed notepaper for invitation letters
- Making it easy to respond to invitations using text messages

The results of the research will help future studies to recruit patients in similar settings.

Lay Summary:

Full title: Identifying safe care processes when GPs work in or alongside emergency departments: realist evaluation. (full article here)

Lay title: What is important for patient safety when GPs work in or alongside emergency departments?

Increasing pressure on emergency departments in hospitals (EDs) has led to GPs working within or alongside emergency doctors to help to cope with the demand. Different ways of working have developed but we don't know enough about how this may affect safety for patients being treated in the ED. This research aimed to look at how potential patient safety risks could be prevented when GPs work in or alongside emergency departments.

We visited 13 EDs using different models for working with GPs. Information was collected using observations, recorded staff interviews and local patient safety reports. These are the records kept when something happens that could have or did cause harm to a patient.

This information was then examined and used to answer these questions:

- What was the situation surrounding any event that did or could have caused harm to the patient?
- What were the procedures or processes which allowed it to happen?
- What was the outcome for the patient?

The answers to these questions were then used to develop theories about how and why a patient safety event might occur and how it was thought safer care could be delivered.

Some of the ideas of how to ensure safer care were:

- Have an experienced nurse in charge of selecting which patients saw which doctors. Provide the nurse with locally developed guidance and early warning scores to help them make the right decisions.
- Be clear about whether the GP is expected to work like a traditional GP or an emergency doctor. Make sure there are clear processes in place to support them in this role.
- Strong clinical leadership from ED doctors and GPs to encourage good teamwork and communication with colleagues and services.

The results from this research can be used to look more closely at the human factors that will underpin good practice for this complex care setting.

Lay Summary

Full title: Public involvement and engagement in primary and emergency care research: the story from PRIME Centre Wales. (full article here)

Lay title: What is the key to success in involving and engaging with the public when doing research into primary and emergency care?

Public involvement in research is encouraged in order to make sure research leads to improved care and better outcomes for patients. 90% of people's contact with the NHS is through primary and emergency care. This is the focus of PRIME Centre Wales, a national research centre. PRIME involves the public in every phase of our work to make sure it meets the needs of service users, carers, the public and policy makers.

This paper describes PRIME's approach to involving and engaging with the public. We describe:

- How the approach has developed
- Ways in which the public contribute to the work of PRIME
- Strengths and limitations
- Challenges and future opportunities

Key ingredients of PRIME's approach include:

- Policies and procedures that enable and promote public involvement across all activities
- Ensuring public views and experiences shape every stage of research from initial ideas to sharing results
- Ensuring the public are able to influence the overall direction of PRIME
- A public/patient group called SUPER which contributes a wide range of views and experiences via email and face to face discussion
- Getting feedback so we can see how useful our approach is and what difference public involvement makes
- Using feedback to improve how we work
- A dedicated member of staff to guide and support researchers and public contributors so that they can work well together to deliver better research

What are the things at PRIME that have enabled successful public involvement and engagement?

- A stable funded centre
- Support for and belief in the value of public involvement and engagement across all of our work
- Time to develop relationships
- Commitment to working together
- Developing knowledge and skills by both researchers and public contributors

- A public/patient group with a wide range of life experiences who researchers can easily discuss their ideas with

Lay Summary

Full title: The impact of general practitioners working in or alongside emergency departments: a rapid realist review. (full article here)

Lay title: A review of published research into the different ways GPs work within or alongside Emergency Departments in hospitals

Hospital emergency departments (EDs) are under increasing, sometimes extreme, pressure. Patients can wait for hours before they are seen. This situation has arisen partly because people attend EDs with problems that GPs could deal with. Finding better ways to assess and treat patients coming to EDs could have a major impact on the experience and care of the millions of people attending EDs and on all NHS services by providing evidence of how best to manage resources.

In England £100 M was allocated to fund GPs to work in EDs and help free up the ED staff to deal with the sickest patients. No guidance was given about how the GPs should be used in EDs and differences have evolved over time.

This research reviews and summarises what has been written on the different ways that GPs work in EDs. By looking at what works, for whom and in what circumstances, it helps us understand the possible effects when GPs provide care in EDs - for example, the difference to:

- the patient's journey through the ED
- the patient's experience of emergency care
- patient safety when receiving emergency care
- the wider healthcare system.

We used what is already published to develop some theories on how and why the different ways that GPs work in EDs can produce different outcomes.

We found that many factors influence the different ways that GPs work in EDs. Further research is needed on cost and safety before any recommendations could be made on which ways might be the best ones to adopt.

Lay Summary

Full title: The effectiveness of primary care streaming in emergency departments on decision-making and patient flow and safety: a realist evaluation. (full article here)

Lay title: How can we ensure the streaming of patients to primary care in emergency departments works well and is safe?

GP services have been introduced into many emergency departments to manage increasing demand for urgent care. This research looks at the things that make a difference when deciding which service a patient needs, how quickly patients are seen and discharged, whether they receive the treatment they need, and whether this arrangement is safe for the patient.

Our findings are based on visits to 10 emergency departments and interviews with the emergency care and primary care staff working there.

We found that ensuring patients were directed to the right service and were treated quickly and safely was affected by:

- Experience, skills and confidence of staff in streaming role
- Training, guidance, and support given to staff
- Reviewing, responding to problems, and seeking to improve streaming process
- Good team-working and communication between emergency and primary care staff
- Good management of the department

Our recommendations:

- Involve medical staff in designing services that suit local circumstances and take into account skills of staff. There is no one-size fits all
- Train nurses to understand the work primary care staff do
- Use senior/more experience nurses to take on initial streaming role or review streaming decisions to improve patient flow
- Monitor how busy different services are and make adjustments to help waiting times and flow.
- Improve team-working by involving primary care and ED teams in developing streaming guidance and training providing opportunities for ED staff to get to know primary care staff and how they work

Lay Summary

Full title: A classification of primary care pathways in UK emergency departments: findings from a multi-methods study comprising cross-sectional survey; site visits with observations, semi-structured and informal interviews. (full article here)

Lay title: Streaming/Assessment of patients attending Emergency Departments. How to describe the different approaches used in order to be able to see what works best.

UK Emergency Care Departments (EDs) have recently been given funding to encourage them to employ GPs working within or alongside an ED. In most cases, patients are assessed on arrival and are directed towards the most appropriate service, which could be a GP or an emergency doctor. This process is known as 'streaming'. How patients are streamed and who makes the decisions on streaming varies widely across the UK. We want to compare these different streaming methods to find out which are the safest, most effective and most efficient. To do this we need to be clear about the different ways streaming is done so we did surveys, interviewed staff, and visited EDs to build a clear picture of the different methods.

The most common approaches observed were:

1. front door streaming before patients register
2. streaming inside the ED
3. without streaming but GPs selecting patients to see

These approaches were often adapted to suit local circumstances such as skill mix and interests of GPs, department layout and patient demand levels.

Patients with non-urgent primary care problems were also sometimes referred to community primary care services. Use of this approach varied with local staffing, patient demand and availability of links to community primary care services.

Comparisons between the different pathways will help local clinical leads and managers in deciding which one(s)are most suitable are for their local needs. In order to make comparisons, consistent descriptions of the streaming methods both within the ED and with community care are needed. Once these are in place, comparisons can take place across different sites which will allow performance to be measured and quality of service to be improved.

Lay Summary

Full title: Is streaming patients in emergency departments to primary care services effective and safe? (full article here)

Lay title: Do patients get better and safer care at hospitals where GPs work within or alongside Emergency Departments? What is stopping us being able to answer this question?

Studies have shown that significant number of people who go to hospital emergency departments (EDs) could be treated by a GP. In 2017 NHS England spent a lot of money to enable primary services to be provided in and alongside emergency departments as a way of reducing pressure on emergency departments. The intention was to reduce crowding and improve patient care and safety. Patients entering the ED with non-urgent complaints were directed to be seen by the GPs, leaving the ED doctors free to care for the sickest patients.

In practice, EDs adopted a variety of ways to work with GPs, but there is a lack of evidence to show whether or not this improved patient care and quality. The variety of arrangements and different ways of working in different places and the many different ways that these are described has made it difficult to find out what works well. So we have developed a consistent way of describing different arrangements so they can be discussed and compared more clearly.

Evidence on whether locating GPS in or alongside Emergency Departments provides better care is limited, outdated or missing. Our study will use the consistent terms we have come up with in our search to find out what arrangements work best for whom and where.

What we can say is that those who plan and deliver services need to be clear about how things are managed and run in their own hospitals and to make sure that these arrangements best suit the local population, demand for services and availability of staff.

Lay Summary

Full title: Taxonomy of the form and function of primary care services in or alongside emergency departments: concepts paper. (full article here)

Lay title: How to describe the different ways GPs work within on alongside Emergency Departments so that we can compare them more easily?

GPs based in or alongside Emergency Departments (EDs) work in many different ways. The way they have been described varies so much that it is very difficult to compare different models with any degree of accuracy. We therefore needed to look at a wide range of different information to make sure our comparisons of these different ways of working was accurate. Information for this study came from articles and reports of previous studies, a national survey of emergency departments in England and Wales, staff interviews, standard hospital records and discussions from two events involving professional staff and the public.

We divided the different ways of working into two main groups: GPs working inside or outside the emergency department.

Inside:
GPs inside the EDs work in two different ways:

1. Mixed in with emergency department doctors. We call this integrated.
2. Separately but alongside emergency department doctors. We call this parallel.

The GPs may see a mixture of patients, or may see patients having complaints seen commonly in General Practice.

Outside:
Outside GP services, offered separately on the same hospital site as the ED, or at another location.

Services still showed a range of differences working within these models. Some used GPs working in a similar way to the way they would work in General Practice. Other models used GPs working in a similar way to Emergency doctors.

Clearly and consistently describing the services makes it possible to really see how the different ways of working compare. This information will then support better decision-making and help ensure services are developed to meet local needs and circumstances