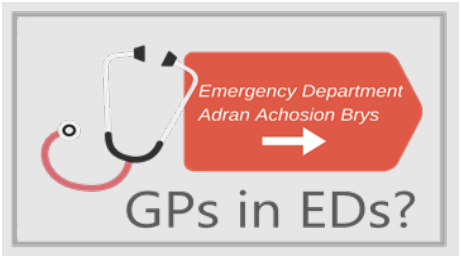
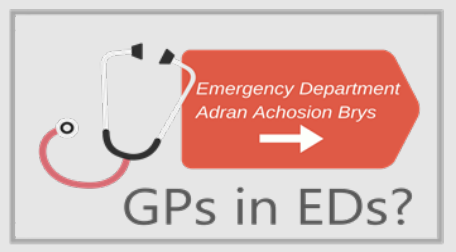


Toolkit for implementing and delivering primary care services in or alongside emergency departments

Contents



Introduction

Welcome to the GPs in EDs study toolkit for implementing and delivering primary care services in or alongside emergency departments to address demand for primary care.

Who is this toolkit for?

This toolkit is for those involved in developing, implementing and delivering primary care services in or alongside an emergency department that includes primary care clinicians. These departments may involve primary care staff seeing patients who have been triaged by an ED nurse or they may be seeing patients who are streamed to an urgent care service, primary care service, GP streaming service or have walk-in access.

What is the aim of this toolkit?

The aim of this toolkit is to enable service providers to consider the type of primary care service being delivered or planned and assess the form and function of the service in relation to a set of aims and desired outcomes.

Why was it produced?

The toolkit was produced to provide evidence-based recommendations on implementing and delivering primary care services within or alongside EDs.

We recognise from our research the complexity of delivering urgent care in different settings. No single model fits all. This toolkit is designed to help understand the local context and the aim of the service to help design the service to meet patients' needs.

How was it produced: what evidence informs this toolkit?

The recommendations in this toolkit are based on the findings from our NIHR-funded evaluation of primary care services in or alongside emergency departments (see study web page) . Data were collected in 2017-2019 (prior to COVID-19).

We collected survey responses from 77 emergency departments and qualitative data from follow up interviews with 21 clinical directors describing how their services operated and highlighting successes and challenges (see published paper).

We visited 13 case study EDs and carried out observations of how each service operated and interviewed clinical directors, business and finance managers, emergency medicine clinicians and primary care clinicians. We also interviewed patients about their experiences of attending EDs and being seen by either an emergency medicine or a primary care clinician (see published paper). To understand the impact of primary care services implemented in or alongside EDs on attendances, waiting times and admissions we have analysed hospital episode data provided by NHS Digital on all 13 case-study sites.

We used our data to understand the different forms that primary care services take and identify how these services function in different contexts. We focussed on how the services were delivered and how this relates to intended and unintended outcomes concerning patient attendances and flow, patient safety, and patient experience/satisfaction.

What has changed since COVID-19?

The COVID-19 pandemic in 2020 affected the ways in which people access healthcare and the ways in which services are delivered. Whilst initial social distancing restrictions led to a reduction in attendances at EDs for a period of time, call volumes and attendances to an ED have now risen to pre-COVID levels. The NHS 111 service has increased capacity to enable an increased level of remote access to urgent care.

Some Emergency Departments also operate a telephone booking system to triage patients and manage the number of patients attending. Patients can be booked into appointments at an ED via NHS 111 and GPs working in Community Primary Care Services.

How to use this toolkit

The toolkit enables users to consider the local urgent care system and how their Emergency Department fits within this context. We will describe various strategies that we have encountered from visiting and studying UK Emergency Departments with different models of using primary care clinicians that appear beneficial.

We will also signpost to various resources, both from our own research and other studies or publications that may help.

From our research and in this toolkit, we have focused on identifying the **"actionable findings"** – the strategies that could be adopted or resources utilised to influence how your service functions to achieve its aims and outcomes.

Primary care clinicians

We recognise that a range of primary care clinicians are now employed, whether as permanent or temporary staff, in Emergency Departments. These include GPs, advanced clinical practitioners, nurse practitioners and practice nurses. Some EDs may also use other healthcare staff with transferable skills relevant to primary care, such as pharmacists, physiotherapists, paramedics and others.

In general, we describe services provided for patients with "primary care type problems" – ones that might otherwise have been managed in in-hours primary care if the patients had booked or attended there. This could involve any of the above-mentioned disciplines.

Where our findings / recommendations do specifically relate to GPs we will identify this.

Reflect on the local urgent care context

Our research highlighted the important of local context and the importance of reflecting on this for designing a service. Considerations should include:

- The availability of **other services** which provide urgent and primary care access may influence the level of primary care demand at an ED, these might be: community primary care centres, urgent care centres, minor injuries units, GP hubs

- The **ease of access to primary care services** may also influence demand and is something to consider when designing your service. In some areas patients may be easily able to access primary care, whilst in other areas some patients may struggle to get appointments to be seen by a GP.

- Where the **hospital is located may** influence the level of primary care demand at the ED and should also influence service design. Hospitals that are close to a residential area, close to a city centre, in a rural town

- **Patient demographics** also influence the level of primary care demand, and the service design should enable access for a range of different types of patients (e.g., local residents) and patients who may not be registered with a GP in the area (e.g., students, transient workers, migrants and tourists)

What are the aims of your primary care service?

Please look at the list of aims below and consider how they fit with the local context and the culture and ethos of the service that you aim to provide and the way that you want primary care clinicians to work. Use the drag and drop function to rank them in order of priority:

1. Manage demand for primary care at the ED (improve waiting times, patient flow and patient experience)
2. To increase the ED workforce - employing primary care clinicians with emergency care experience (to improve waiting times and patent flow)
3. Ensure all patients who attend the ED are seen by an appropriate clinician for their needs (improve patient experience, waiting times and patient flow)
4. Reduce investigations (improve costs, waiting times and patient flow)
5. Increase access to primary care for specific patient groups (improve patient experiences/access to primary care)

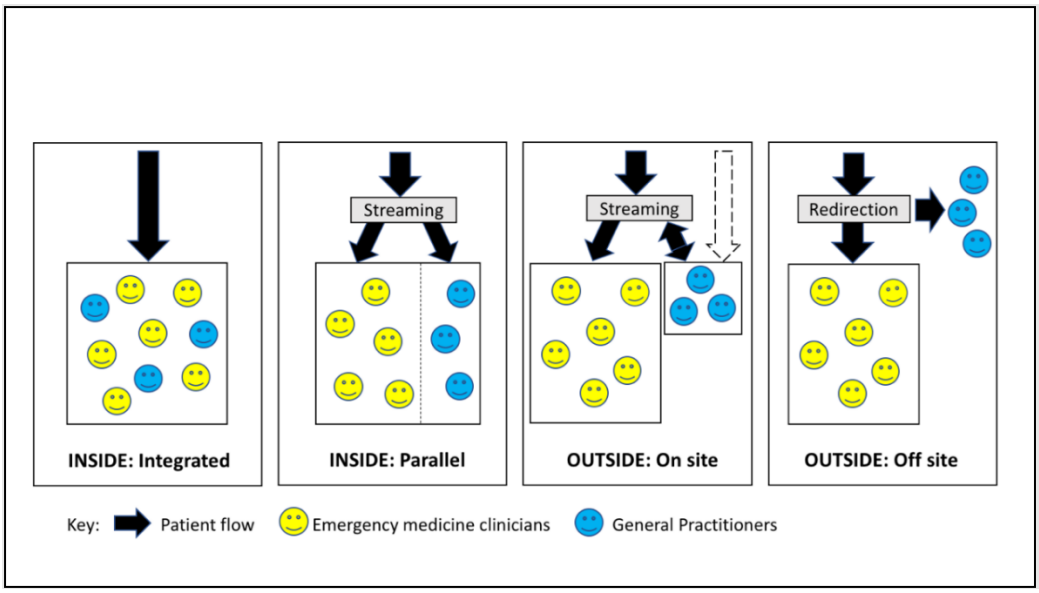
Identify the **form** of your service model

Please now consider the form of your current (or intended service), does it fit with the local context and the aims included above.

Which model of primary care service is closest to what you

Based on our research we have identified different models of how Emergency Departments include a primary care service (see published paper) (figure 1).

Figure 1. The form of primary care services in or alongside EDs



Reproduced with permission from Cooper et al (2019) Emerg Med J 2019; 36:625-30 (35)

The three models that will feature in this toolkit are:

1. **INSIDE: *Integrated primary care services***- GPs fully integrated with the emergency medicine service
2. **INSIDE: *Parallel primary care services* –** GPs provide a separate service within the ED, for patients with primary care type problems
3. **OUTSIDE: *on-site primary care services***- The primary care service is elsewhere on the hospital site

Note: We found that some services may temporarily change their model based on days of the week or times of day when there are changes in attendance levels and availability of primary care staff.

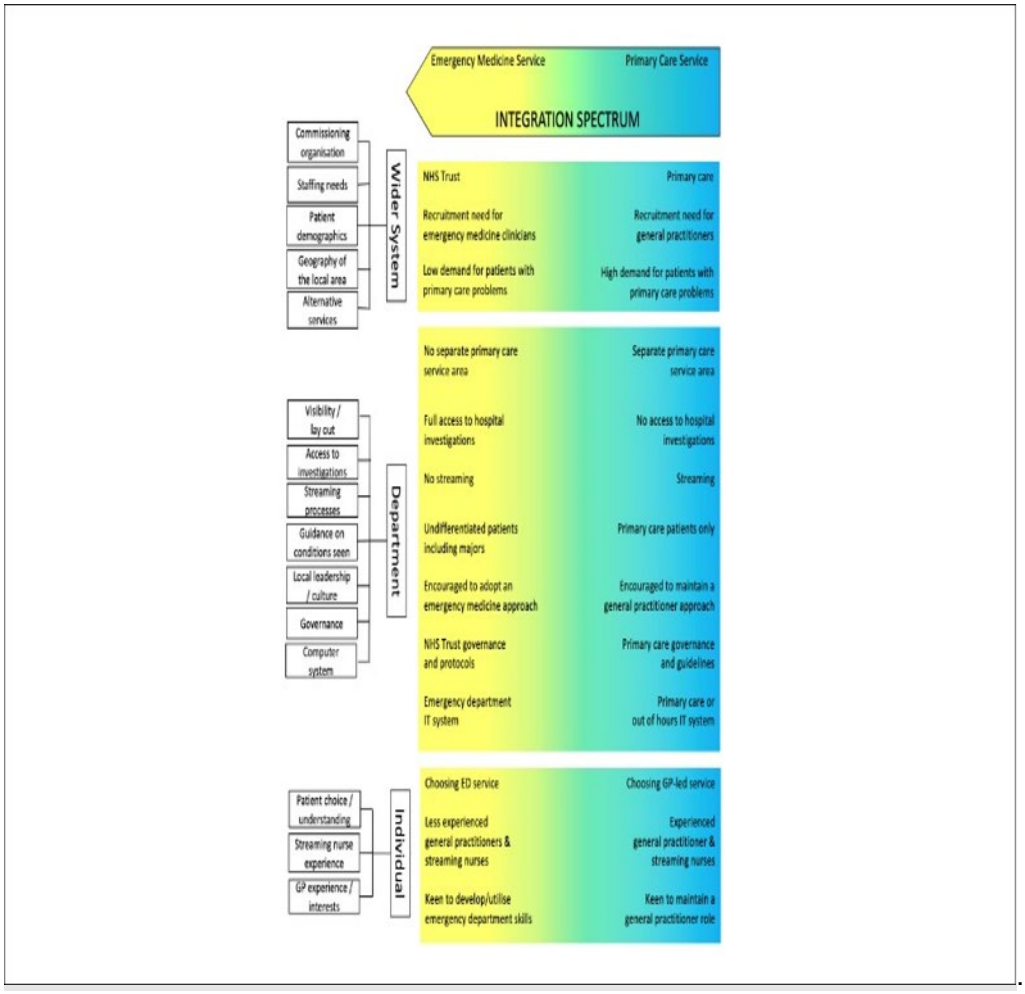
Identify influences on how your service functions

How does your service function?

We have proposed a spectrum to show how Primary Care services are *more or less integrated with ED services* and how primary care service models function (see figure2 below). We present a list of constructs (grouped at wider system, department level and individual level) that influence how services function.

In our research we found that some emergency departments will align most of their functions to the left of the spectrum as an emergency medicine service (e.g., mostly *Inside integrated* models), some will align to right of the spectrum as a primary care service (mostly *inside parallel* and *outside onsite* models) and some services will have some functions somewhere in between, depending on the aims of their service.

Figure 2 Spectrum of Integration (see published paper)



Please reflect on these influences and where your service fits on the spectrum

Does your service model reflect:

- Mostly an emergency medicine service (aligned mostly with the functions to the left)
- Mostly a primary care service (aligned mostly with functions to the right)
- A model which reflects a variation of functions from both types of

Reflect on the ethos of your service model

We noted in our study that local leadership and culture were key influences on the way a service functioned and how primary care clinicians worked in terms of their focus on Emergency Medine or Primary Care.

Your department may adopt a 'gatekeeping' ethos to ensure that patients with primary care needs are redirected away from the ED to a community primary care service (to focus on ED demand and also to manage concerns about risks associated with primary care clinicians seeing patients attending an ED).

Alternatively, your department may adopt an ethos where all patients who attend the ED are seen by an ED or primary care clinician (without referral back to their own primary care clinician).

Please reflect on the following:

- What is the ethos of my service?
- How does the service fit with the local urgent care system?
- What impact do you want your service to have on the ED?

Which outcomes fit with the aims of your service?

Findings from the GPs in EDs study have been used to make recommendations for the following outcomes:

- Managing patient attendances,
- Improving patient flow,
- Improving patient experiences (and expectation) of accessing urgent care
- Improving patient safety.

All outcomes are important, but some will be more challenging to achieve, (e.g., reducing primary care attendances) and so prioritising which outcomes you want to improve will depend on the aims of your service.

Managing attendances

Addressing primary care-type demand and encouraging appropriate primary care attendance

If **addressing the demand for primary care at the ED is one of your priority aims,** then understanding influences on patient attendances is important. Managing the demand and capacity for primary care-type attendances and supporting patients to access appropriate services depends on **understanding individual patient level, department level and wider system level influences** on attendances. Paying attention to what influences patients to attend can help manage their expectations of the service, develop education and information materials and signage and work with individuals and communities to promote appropriate primary care attendance and a more efficient utilisation of urgent care.

Considering the factors related to the department or service is important for managing public awareness. It can help prevent 'provider-induced demand' (especially inside-parallel models and outside-onsite models where the service is more 'visible' to patients, well-known and it may be possible to offer direct access to primary care) see our publication.

From a wider-system perspective more can be done to try and build capacity to direct patients to community primary care services.

Below we summarise factors described by clinicians (and patients) as influences on attendance and strategies to manage these with patient education and information and pathways to community primary care:

Level of Influence	Influences on attendance	Information and education
Individual – patient level	**Understanding the urgency of their problem**	• Patient education strategies to educate the public about which services are appropriate to attend for primary care and urgent and emergency care and how to access them (e.g., **posters or visual displays** in waiting areas and **leaflets** handed to patients after they have had an initial assessment) • **Information at the front door and around the ED waiting room** Informing patients about the types of conditions seen in the emergency department and urgent care centre
	Convenience (not registered with a local GP, live/work locally, visiting the area, transport links)	• Education, information and support to specific population groups (i.e. local residents, students, migrant workers, refugees and asylum seekers) to inform them of **how to access community primary care services** and support **them to register with a GP**
	Difficulty accessing / dissatisfaction with community primary care services)/Wanting to be seen by a GP on the day	• Work with community primary care services to produce **information and patient education resources (leaflets, posters**) about how to access an urgent appointment: where to go for which kinds of conditions (e.g., Primary Care, Minor Injuries Unit, Emergency Department); what kinds of investigations can be done in each service and when and why they might not be necessary or urgent.
	Perception of getting investigations (blood tests, X-Rays etc)	• This information to inform patients when X-rays are appropriate and necessary can be displayed in the ED waiting room or on leaflets that can be given to patients asking for an X-ray for an old injury or routine blood tests for a long-term condition
	Awareness of Walk-in centre access	• Ensure that patients entering the walk-in centre can view information about what type of conditions the clinicians will see people with and which type of conditions they must check in at the ED desk for (accident and emergency) or see their community primary care service for (e.g., screening tests, routine care). We observed this information on the front door of one walk-in centre.
Department level	**New hospital or service for inside parallel or outside onsite models (where the ED primary care service is more distinct)**	• Carefully **manage media publicity** raising public awareness of the primary care service to ensure that the service does not become quickly overwhelmed and negatively impact on patient flow in the ED and ED staff workload • **Balancing any publicity** about a new primary care service with **patient education** about what the service provides, when to access it and information about the range of urgent care services
Wider system	**Access to primary care:**	• ED pathways should also direct patients to other hospital services (such as ambulatory care) and community primary care services.
	Referrals from 111 service:	• 111 services should consider capacity for primary care at EDs and refer to community primary care services, referring appropriate patients to primary care services in EDs only with appointments.

Evaluating primary care-type demand

Regular evaluation of primary care-type demand is important for service planning, staffing, and allocating resources. **We recommend to:**

Keep a record and audit of streaming	1. The number of patients streamed (in) to a primary care clinician in the ED (this must be separate to patients who have attended a walk-in entrance) 2. The number of patients streamed inappropriately and sent back to the ED (for safety monitoring) 3. The number of primary care-type referrals from 111 service 4. The number of patients who can be streamed (out) to an on-site out-of-hours primary care service
Keep a record and audit of patients redirected to community primary care services	5. The number of patients who walk-in and are redirected to community primary care. 6. The number of patients re-directed to community primary care services from ED streaming/triage (booked appointments) 7. The number of patients redirected and who attended community primary care and those who were redirected but did not attend.

Reflective Checklist

- Is this evident in my ED
- What can be done to ensure this evaluation is happening?
- Who can do this?
- By when?

Improving patient flow

If improving waiting times and patient flow in the ED and using fewer investigations is one of your key priorities, then a focus on streaming to a primary care service will help ensure patients are seen by an appropriate clinician for their needs. The ED staff can focus on seeing emergency patients whilst primary care clinicians may see more patients for less time using fewer investigations.

At the time of the GPs in EDs study the following activities were in place to assess patients who attend an ED and direct them to the most appropriate clinician for their needs:

Streaming	An **operational activity** to assess whether low acuity patients are suitable to be seen by an appropriate non-ED clinician.
Triage	A **clinical activity** to sort patients by acuity so that those with the greater need are seen first.
Redirection	Patients are sent to a care provider at another geographical site. This may be in the context of a formal care relationship e.g., to an Urgent Treatment Centre / GP Out-of-Hours facility/ GP Hub or Surgery or a dentist / pharmacy.

We describe 3 main types of streaming being used in Emergency Departments (illustrated in figure 3 below) (see also published paper):

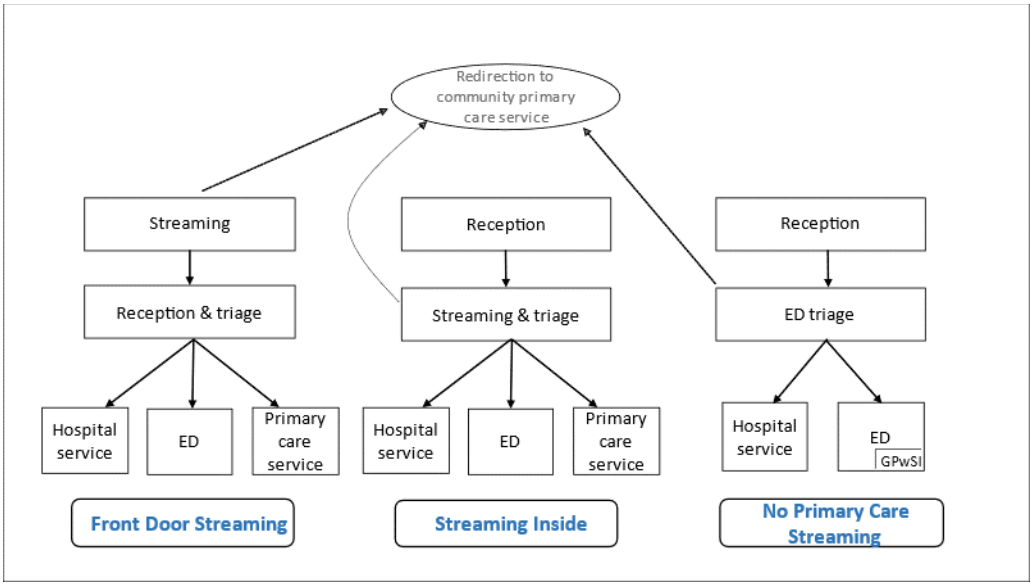
Front door streaming	patients streamed by a nurse at the front of the ED – before being booked in at reception
Streaming inside the ED	patients streamed by a nurse working inside the ED– after being booked in at reception)
Combined streaming pathways	combinations within the emergency department or across the ED and primary care services, varying at different times
No streaming	usual triage, with GPs self-selecting patients

Our research found that it is sometimes possible to implement a front door streaming model (recommended by NHS) and the choice of streaming model needs to fit with local contextual

variations (availability of staff, primary care demand and case-mix, design of the department, relationships with out-of-hours and in-hours primary care services and other primary care services).

Please examine Figure 3 below and consider what model of streaming operates more commonly in your ED and **whether this enables the ED to achieve your aims** (manage primary care demand, ensure all patients who attend the ED are seen, improving waiting times and flow).

Figure 3 Streaming pathways in Primary Care See publication



Making service improvements to streaming to improve patient flow

To help improve efficiency and safety in the flow of primary care-type patients within the ED and between the ED and primary care services we focus on 4 areas for improvement:

1) Nurses' knowledge of primary care-type conditions;

2) Training GPs to work in an ED;

3) Implementing streaming guidance; and

4) Operationally managing streaming and redirection to primary care

1. **Improving nurses' knowledge of which patients are appropriate for the primary care service**

A strong teamworking and communication culture is important to ensure that patients are efficiently streamed to an appropriate clinician for their needs. This enables teams to understand how individual clinicians and teams work and can engage in collaborative decision-making about where patients are streamed to. Clear guidance and training are essential underpinnings.

We recommend:

Streaming guidance and training	This needs to be co-produced by primary care and emergency care managers and reflect the type of service in operation Ensure that streaming nurses are familiar with and follow streaming criteria that **fits with the aims of the service**
Ongoing training and guidance needs	Assessing and identifying appropriate patients for primary care staff (also improving knowledge of investigations that primary care clinicians use and their capacity to make referrals)
Where patients do not fit into the ED's streaming criteria	Engage in **collaborative decision-making** with colleagues (ED and primary care team) to negotiate which clinicians should see patients (front-door streaming and streaming inside the ED). If the aim of the service is to direct lower acuity patients to primary care staff, including when there is flexibility in the way in which GPs work, then ensure streaming nurses are **familiar** with the GPs who work in the ED and their **individual skillsets, special interest areas** and preferences for which types of patients to see

Reflective checklist for CDs and Lead ED nurses

- Is this evident in my ED?
- What can be done to ensure this is happening?
- Who can do this?
- By when?

Where the governance allows for *variation* in how GPs or ANPs practice (more frequently observed in Inside-Integrated models) and there are GPs/ANPs employed with special interests and emergency care skills, it is useful for nurses working on streaming to know which types of patients that the GPs/ANPs working in the primary care service will see at that time. This information should be made available to ED nurses working in streaming to support their streaming decisions and to the lead nurse and other ED doctors on each shift where the primary care service is operating. The aim of this checklist is to help improve patient flow by optimising the number of patients who can be seen in the primary care service.

The checklist (below) can be completed by the primary care clinicians to help nurses stream primary care patients effectively.

Please indicate name of practitioner, which types of patients they see, their areas of special interest and which investigations they can order and interpret.

Name of GP/ Advanced nurse practitioner	**Primary Care only**	**Primary care exclusions (e.g., children, pregnant women)**	**Primary and Emergency Care**	**Emergency Care area of special interest**	**Use of investigations**
Dr A Brown	no		Yes - some	e.g., trauma, orthopaedics	e.g., blood tests, X-ray

2. Training GPs to work in an ED

We recommend developing reflective training for GPs based on the type of primary care service model (inside-integrated, inside-parallel or outside-onsite) in use and how GPs are expected to work within that model:

GP role	Training considerations (see publication)
GPs expected to maintain a traditional GP approach	GPs must be aware that the patient cohort is likely to be at higher risk with greater pre-test probability of serious disease in the ED compared to usual primary care
GPs adopting an emergency medicine role (typically, in inside-integrated models)	GPs should be aware of national and local standard operating procedures, reflective of their own learning needs and how these can be met, and have knowledge of the process for feedback, review and supervision in the ED
Both approaches (all models)	GPs should acknowledge that longer consultation times may be needed to allow for more detailed history taking and safety netting with documentation and a lower threshold to admit or refer for investigation

Reflective checklist for CDs and Lead GPs

- Is this evident in my ED
- What can be done to ensure this evaluation is happening?
- Who can do this?
- By when?
- Is this evident in my ED
- What can be done to ensure this evaluation is happening?
- Who can do this?

3. Implementing streaming guidance

We have observed some potentially useful strategies for implementing streaming guidance across different streaming methods:

Protocols and criteria for all streaming methods:

- Specific criteria (and use of early warning scores) for streaming children to ED clinicians and primary care clinicians can ensure children are streamed safely to an appropriate clinician for their condition
- Agreed protocols for transferring patients between services when they may be re-streamed back to the most appropriate stream after an initial decision (e.g., if they are streamed to a GP but need to be sent to an ED clinician, can ensure patients are safely directed to an appropriate clinician or service).
- Allowing for a variation in protocols can enable more day-to-day flexibility with streaming criteria based on GP's skill set

Protocols and criteria for front door streaming:

- Additional streaming criteria for specific patient groups to be streamed to specialist clinicians (e.g., geriatric patients, stroke patients, patients with chest pain, patients with DVT, ambulatory care patients)
- Record number of patients streamed to each pathway

Protocols and criteria for combined streaming pathways (both services have streaming/triage):

- Streaming pathways must support the aim of the service and be consistent in listing which patients are streamed to a primary care service
- Good communication is needed between streaming/triage nurses in both services

Reflective checklist for CDs and Lead ED nurse

- Is this evident in my ED?
- What can be done to raise profile / ensure it's happening?
- Who can do this?
- By when?

4a. Operationally managing streaming (monitoring and real-time responding)

Based on our observations of how streaming is managed we recommend that lead nurses:

All models

- Monitor attendances and capacity in both ED and primary care services to help with making decisions about deploying staff to areas or decisions about streaming patients to best address demand and improve flow (e.g., streaming to primary care may need to be paused and patients seen in the ED if demand exceeds capacity and primary care waiting times are extended beyond what is acceptable, or vice versa).
- Note which primary care staff are working and ensure streaming nurses are aware of who is working and what kinds of patients can be streamed to them (see section 1 above)
- Using a traffic light system to categorise expected waiting times from an initial assessment can help manage and monitor patient flow and inform patients, manage expectations

Outside-onsite and inside-parallel - with front door streaming

- Devise a rota for streaming nurses, ensuring the **most senior and experienced nurses** are in place for this role

Reflective checklist for CDs and Lead ED nurse

- is this evident in my ED?
- What can be done to raise profile / ensure it's happening?
- Who can do this?
- By when?

4b. Operationally managing redirection

When demand exceeds capacity at the ED we recommend:

- Where attendances are high - positioning an administrative member of staff (navigator) to support a streaming nurse and GP by arranging same-day appointments with community primary care services
- Establishing a point of contact within community urgent / primary care and out-of-hours primary care services and ensure a process/protocol/capacity is in place to arrange redirection from the ED (e.g., bookable appointment slots)

Reflective checklist for CDs and Lead ED nurse

- is this evident in my ED?
- Is it safe, are patients turning up for their GP same day appointments?
- Are patients bypassing the GP wait for an appointment by turning up in ED first?

Improving patient's experiences of seeking urgent care is an important outcome that should align with the aims of your service **(e.g., managing the demand for primary care, enabling convenient access** to primary care at the ED, ensuring that **all patients who attend the ED are seen** and **improving waiting times and patient flow** in the ED).

The main mechanism to improve patients' experiences is to manage their expectations of the service provided.

ED nurses told us that these communication strategies helped manage patients' expectations and acceptability of streaming:

Explain to patients	• Which **type of clinician they are being streamed to** and **why** they are being streamed to GP and/or primary care clinicians or redirected to another primary care service • The role and value of GPs and/or primary care clinicians in the ED (giving (re-)**assurance** of the primary care clinician's **expertise)** • The **benefits of being seen by a GP/primary care clinician** e.g., potentially shorter waiting times, fewer investigations, spend less time in the ED • Whether **investigations in the ED are available and necessary for their complaint,** and their role in clarifying diagnostic and treatment plans

Ensure signage is in place	• to direct patients to a primary care service area and ensure that they are aware that they have been streamed to a primary care clinician
Involve patients in	• The streaming decision with a shared decision-making approach (see NICE Guidance and 3 talk model)

Reflective checklist for CDs and Lead ED nurse

- is this evident in my ED?
- Is there scope to introduce signage if not in place?
- What can be done to raise profile / ensure it's happening?
- Who can do this?
- By when?

ED nurses and patients told us that patients being streamed to a primary care clinician or redirected to a community service feel safer when they are assured that:

- A **primary care clinician is skilled** to assess their condition and offer treatment
- It is explained that their condition is not urgent as an emergency and that they are **safe to be seen** in a local primary care service **later that day**
- They have a **booked appointment** in a community primary care service for later that day (appointments can be arranged by a navigator).

Reflective checklist for CDs and Lead ED nurse

- is this evident in my ED?
- What can be done to raise profile / ensure it's happening?
- Who can do this?
- By when?

We also recommend to:

- **Ensure** patients have a safe and accessible **method of travel** to a community primary care service for their appointment (this can be supported by a navigator)
- **Report and monitor patients' attendances** at community primary care services to which they have been redirected (see section on safety)

Reflective checklist for CDs and Lead ED nurse

- is this evident in my ED?
- Are there data? Are they audited?
- What can be done to raise profile / ensure it's happening?

To help with service evaluation, we recommend developing *patient surveys* to:

- Gather feedback on the **streaming process and experience** of being seen by a primary care clinician
- Enable service user feedback on **service changes** and provide insights into what makes primary care streaming acceptable to patients
- **Use patients' evaluations** of the quality of information, explanations and the experiences when being streamed or redirected to primary care services **to inform service development (through feedback to staff and training)**

Reflective checklist for CDs and Lead ED nurse

- Is this evident in my ED?
- What can be done to raise profile / ensure it's happening?
- Who can do this?
- By when?

We recommend the following service developments to improve patients' experiences of redirection to primary care via attendance at an ED:

- Negotiate appointment slots in community primary care if you have high primary care attendances
- Develop and implement an IT system to support checking availability and booking community primary care
- Increase capability and capacity to re-direct patients to community primary care and out-of-hours from initial assessment – ensure staff who are experienced and trained to make decisions about redirection are placed in a streaming and redirection role (a navigator can assist with redirecting patients)

Reflective checklist for CDs and Lead ED nurse

- Is this evident in my ED?
- What can be done to raise profile / ensure it's happening?
- Are commissioners engaged in supporting this?
- Are the right staff in the right place for the job? Who can take responsibility for this and make changes to ensure best distribution of staff / skills / experiences – in general, and day to day (& within days)?

Improving patient safety

Based on our research findings (see published papers) we recommend three priority areas for improvements in patient safety:

Streaming or redirecting to an appropriate service

- Developing local guidance (based on the model of service provided) on which patients should be seen by primary care clinicians
- Using experienced nurses to assess patients and identify which service patients should be streamed (using basic observations and early warning scores to identify patients not suitable for primary care)
- Adequate staffing should be in place to meet standard triage times
- A communication channel between services on the day to inform nurses of the skillset and capacity in the primary care service to facilitate appropriate streaming
- Implement a **reporting system** to enable primary care service to communicate with the ED when **patients redirected to community primary care service have been seen**
- Implement a system **to guide patients efficiently and quickly back from community or on-site out-of-hours primary care service to ED streaming nurse** if they are assessed as not suitable for primary care by a primary care clinician.

Reflective checklist for CDs and Lead ED nurse

- Is this evident in my ED?
- What can be done to raise profile / ensure it's happening?
- Who can do this?
- By when?

Support primary care clinicians' clinical decision-making

- Co-produce with primary care staff and managers in the ED the aim of the service (e.g., address local demand) and how you expect the service to operate
- Ensure clear governance processes which reflect the aim of the service and how primary care clinicians are expected to work.
- Establish induction, feedback and review processes to explore individual clinicians' learning needs, develop staff understanding of how working in the emergency department may influence clinical decision-making, and how clinical decision-making can be enhanced

Reflective checklist for CDs and Lead ED nurse

- Is this evident in my ED?
- What can be done to raise profile / ensure it's happening?
- Who can do this?
- By when?

Good communication between ED and primary care services

- Develop a culture including strong clinical leadership (GP and ED) and which encourages inter-professional communication (formally and informally), mutual respect and teamwork
- Ensure local GPs as permanent staff members who feel valued in the team and can contribute to guidelines, multidisciplinary teaching and meetings
- Encourage face-to-face communication between staff (informal and formal meetings).
- Implement clear emergency or specialist referral pathways
- Seek standardised and integrated clinical record systems with local primary care to support communication about attendances and investigation follow-up with local primary care services

Reflective checklist for CDs and Lead ED nurse

- is this evident in my ED?
- What can be done to raise profile / ensure it's happening?
- Who can do this?
- By when?

A quality improvement tool to improve the safety of patient care

The driver diagram below is a quality improvement tool to help define **ideas for change** for an improvement project.

To aim of the tool is to help guide improvements in the safety of patient care when primary care clinicians work in or alongside emergency departments.

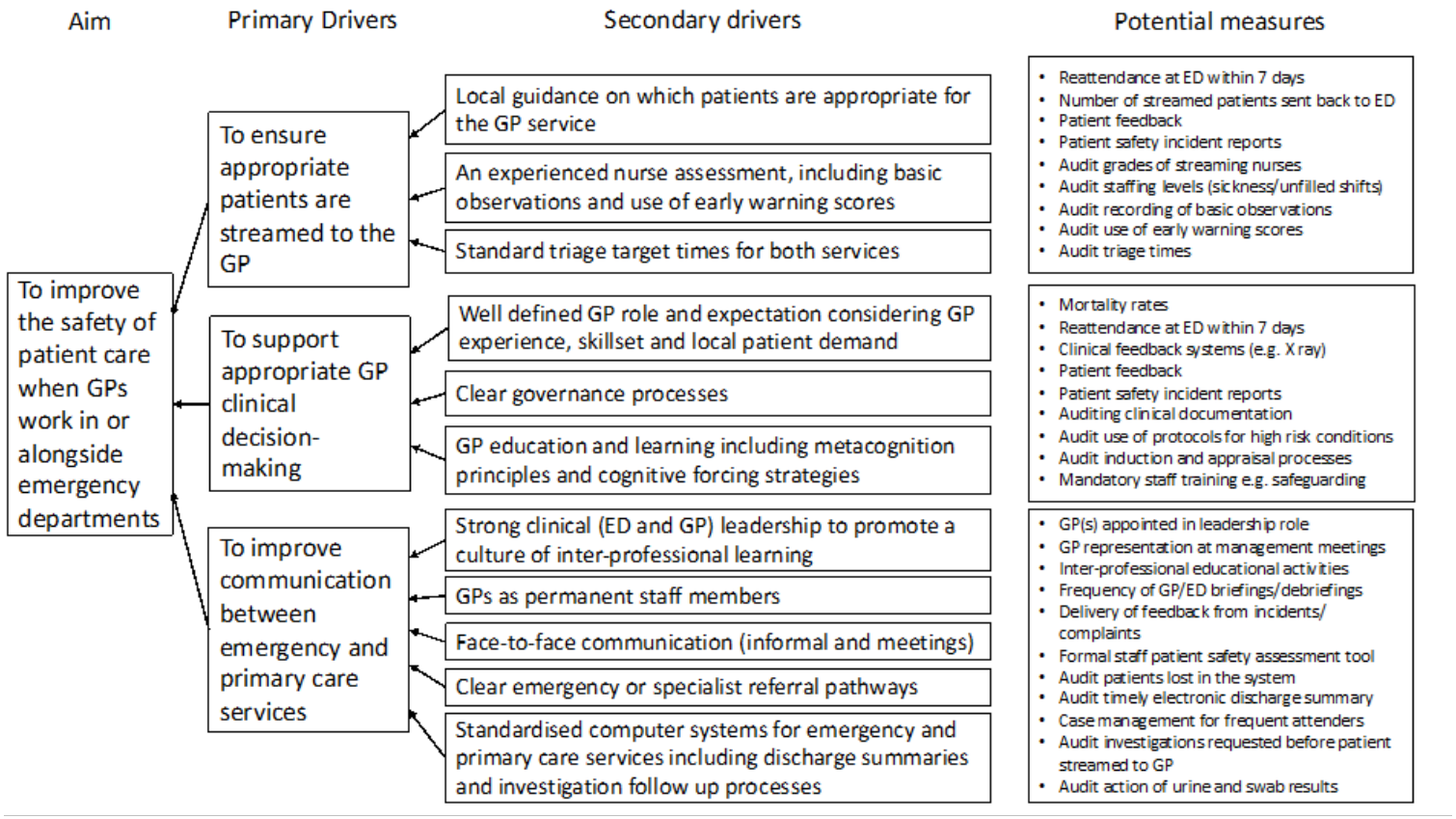
The three priority care needs (streaming, clinical decision-making, communication) are summarised as primary drivers; the secondary drivers are contextual factors that we found to influence safety outcomes and should be considered as the means to achieve improvements in those priority areas.

A list of potential measures is included for each area of improvement.

Reflective checklist for CDs and Lead ED nurse

- Which of these drivers are in place in my ED?
- Which can be improved?
- Which measures can be applied to aid evaluation and improvement?
- Who can do this?
- By When?

Fure 3: Priority areas to focus improvement interventions to improve the safety of care delivery when GPs work in or alongside emergency departments



Summary of reflections

Please summarise areas for improvement

Areas for potential improvement	**Is there an improvement need yes/no**	**Summarise improvement needs, by whom and when**
Influences on service function		
The ethos of your service model		
Improving patient flow		
Training GPs to work in an ED		
Implementing streaming guidance		
Operational management of streaming/redirection		
Patient experience surveys		
Service developments		
Improving safety – streaming/redirection		
Improving safety – clinical decision making		
Communication between services		
Quality improvement		

Evaluation and audit needs to take place at both service level and at an individual practitioner level to identify variations of practice that might be addressed with continuing professional development or other measures.

Mapping contexts, mechanisms and outcomes

Below we include figures mapping different contextual factors and mechanisms that lead to outcomes relating to effective patient flow, patient experience, patient safety.

There is a map featured for each type of model.

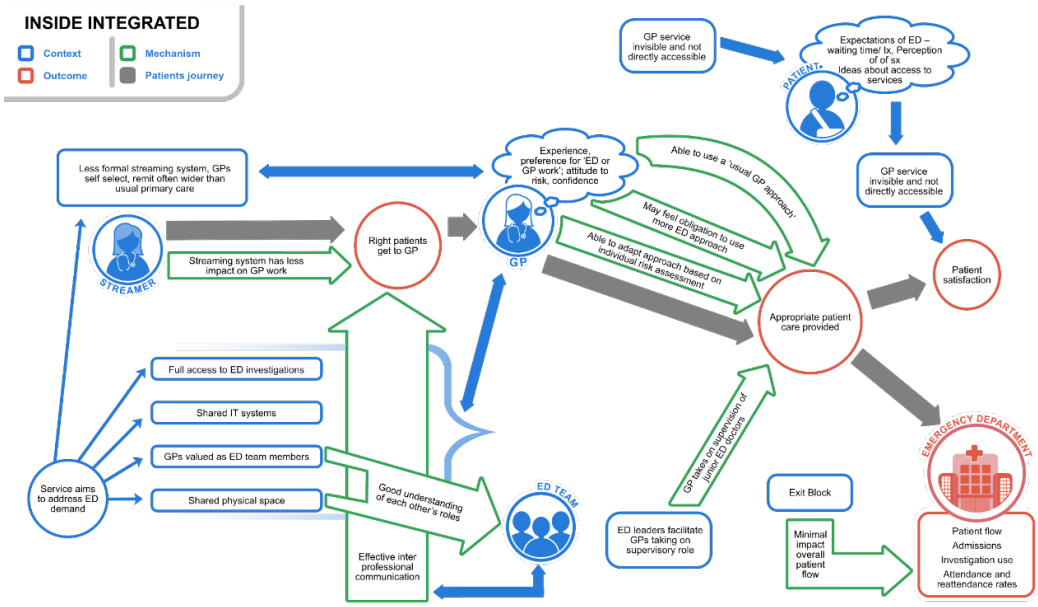
Please review the map that fits with the model that you have or wish to implement in your ED, to identify the **pathway to outcomes that you wish to optimise**. The maps will help you identify areas of changes that you can make and the potential impact of those changes. Please refer again to the Driver Diagram above for specific actions ('secondary drivers') and measures that may be useful to achieve these changes.

Inside-integrated model

Figure 4 illustrates factors that influence patients' expectations and experiences, patient flow, investigation use, admissions and re-attendances in the *Inside-Integrated* model of GPs working in an ED.

Note that primary care streaming is less influential in these models and GPs in this model may see a wider group of patients (emergency and primary care).

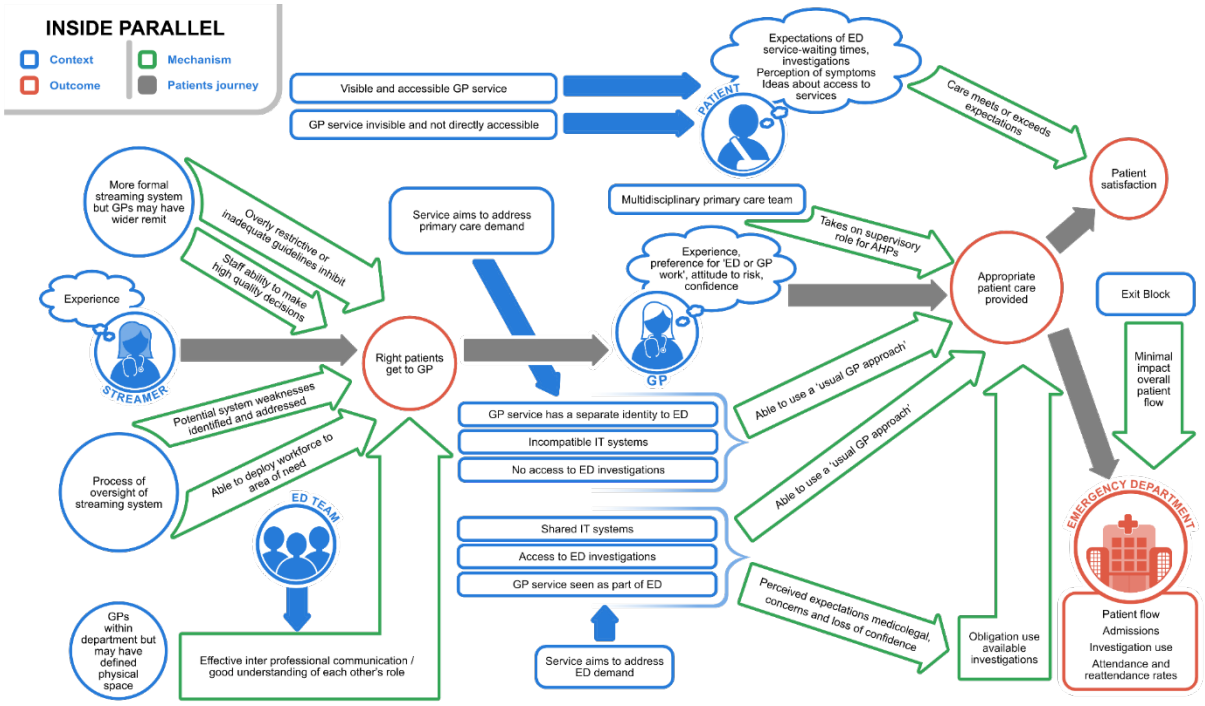
Figure 4 Map of Inside Integrated Model



Inside-parallel model

Figure 5 illustrates factors that influence patients' expectations and experiences, patient flow, investigation use, admissions and re-attendances in the *Inside-Parallel* model of GPs working in an ED.

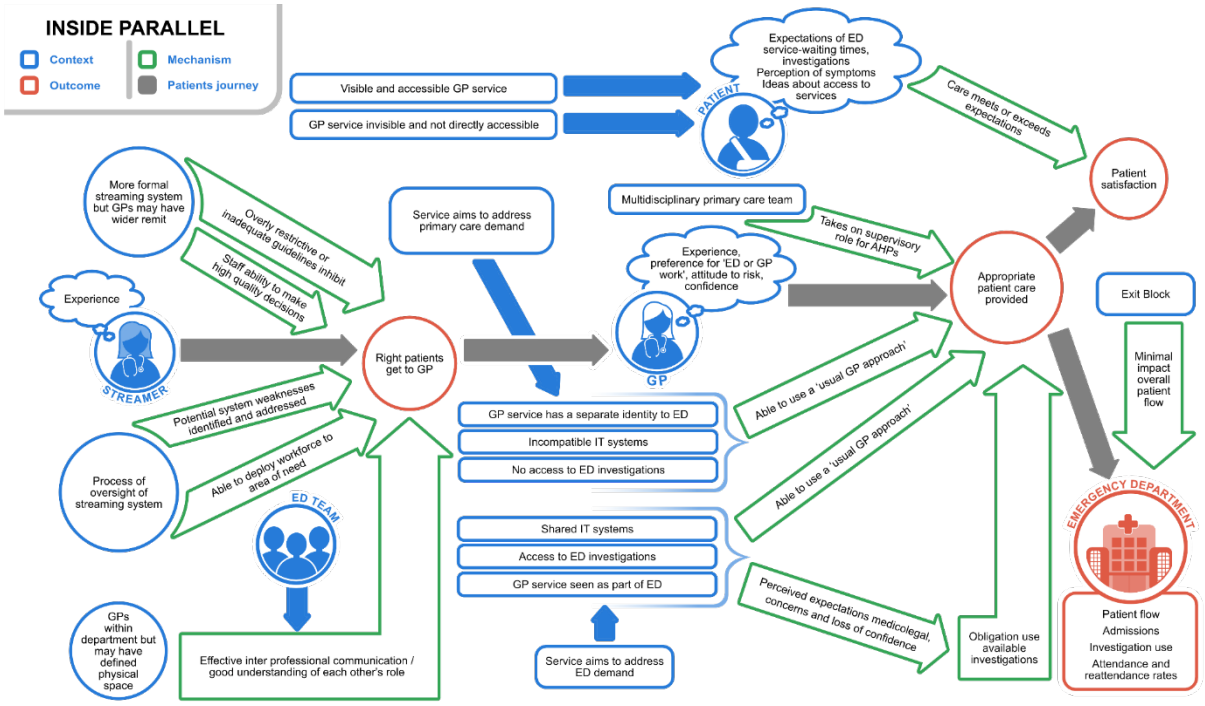
Figure 5 Map of Inside Parallel Model



Outside-onsite model

Figure 6 illustrates factors that influence patients' expectations and experiences, patient flow, investigation use, admissions and re-attendances in the *Outside-Onsite* model of GPs working in an ED.

Figure 6 Map of Outside Onsite Model



Action Plan

This exercise will enable you to use your reflections throughout the toolkit to plan how you can put mechanisms in place to improve the broad set of outcomes covered in this toolkit and how you can evaluate the impact of these.

Areas for improvement	What is your desired outcome (in specific terms)?	What mechanisms ('secondary drivers') can you put in place or change?	Who needs to be involved in discussions and decisions?	Who will be responsible for implementing these?	What is the time scale for implementation ?	How will you evaluate impact? ('measures')
Managing Demand						
Patient Flow						
Patient Experience						
Patient Safety						