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Are acute asthma presentations to the emergency department an opportunity for optimising long-term management? A qualitative study on beliefs and behaviours of healthcare professionals

Imogen Skene ,[1,2] Chris Griffiths,[1] Katherine Pike,[3] Benjamin Michael Bloom ,[2] Paul Pfeffer,[1,2] Liz Steed[1]

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[1]Wolfson Institute of Population Health, Barts and The London School of Medicine and Dentistry, Asthma UK Centre for Applied Research, Queen Mary University of London, London, UK
[2]Barts Health NHS Trust, London, UK
[3]Bristol Royal Hospital for Children, Bristol, UK

Correspondence to
Imogen Skene;
i.p.skene@qmul.ac.uk

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ABSTRACT

Background Guidelines recommend Emergency Department (ED) healthcare professionals (HCPs) ensure patients have a supply of inhaled corticosteroid on discharge after an acute asthma presentation. By optimising medication, acute asthma presentations to EDs are a potentially reachable moment to improve long-term asthma management as well as treating the acute exacerbation. Optimising medication for long-term asthma management requires behavioural changes from HCPs, which may be considered unacceptable or unfeasible. Understanding health beliefs and attitudes of HCPs who provide asthma treatment in emergency care is a critical step in determining whether interventions could be developed to address this.

Aims To explore the health beliefs, attitudes and behaviours of HCPs involved in the care of adult patients presenting to the ED with asthma.

Methods UK HCPs, purposively sampled for profession, experience and work setting, were invited to participate in a semi-structured face-to-face or online interview. These were conducted between November 2021 and June 2022. Eligible participants had experience of caring for patients with asthma in either the ED or primary care setting. Interviews were analysed with reflective thematic analysis.

Results 19 HCPs were interviewed. Four themes were identified, constructed around the beliefs and behaviours of HCPs: (1) Compassionate understanding, that is, recognising the accessibility of ED, patients' self-management and the emotional aspects of exacerbations, (2) Doing what is right for the patient, that is, maximising a reachable moment, (3) Tensions of capacity in the system, that is, acknowledging workload within ED and (4) ED as providers of preventative care.

Conclusion This study found HCPs recognise both the accessibility of the ED as a place for patients to seek help and that there are potential opportunities to optimise asthma control, but there are barriers to overcome. ED professionals may be willing to make changes in the best interests of the patients if they can follow guidelines and receive training.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Emergency department (ED)-delivered interventions intended to improve long-term outcomes in patients with adult asthma have demonstrated effectiveness in trials.
⇒ Successful interventions include the provision of a resource (such as a new inhaler, written information) and knowledge (such as an educational intervention).
⇒ Little is known about healthcare professionals' beliefs and attitudes to change long-term asthma medication in the ED.

WHAT THIS STUDY ADDS

⇒ Education for healthcare professionals (HCPs) is required to raise awareness of new national/international guideline-recommended asthma management regimes, which use combined inhaled corticosteroid/formoterol inhalers, to ensure patient are advised appropriately on effective symptom relief and asthma management on discharge from the ED.
⇒ HCP participants felt long-term asthma management was best suited to the primary care environment but were willing to prescribe alternative asthma treatments, such as maintenance and reliever therapy, in the ED, providing the change was guideline-driven and accompanied with training.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Understanding attitudes to changing long-term asthma medication in the ED may help development of more successful treatment pathways and improve implementation of future guidelines while being mindful of pressures in healthcare systems.
⇒ Resources to support implementation of guidelines could include behaviourally informed training for staff, decision support and patient resources.

INTRODUCTION

In the UK, asthma exacerbations lead to approximately 110 000 ambulance callouts, 120 000 emergency department (ED) visits, 60 000 hospital admissions and 200 000 bed days per year.[1 2] Inhaled corticosteroids (ICS) are the cornerstone of preventative asthma management;[3] however, a systematic review has shown adherence to be low,

between 22% and 63%.[4] Poor adherence could contribute to 24% of exacerbations and 60% of asthma-related hospitalisation.[4] It is common for people to take only symptom-relieving short-acting beta agonist (SABA) medication and to use this too frequently.

The Global Initiative for Asthma guidelines recommend a combined inhaler containing ICS/formoterol (such as Symbicort, Fostair, DuoResp and Luforbec), taken either 'as needed', which is known as 'anti-inflammatory reliever' (AIR) therapy or taken both regularly as a preventer and 'as needed', which is known as a 'maintenance and reliever therapy' (MART) regime, in preference to SABA alone or separate ICS and SABA inhalers. This applies to adolescents and adults with asthma, across the range of asthma severities.[3] National guidelines now also advise this approach.[5] This reflects concerns about the risks of SABA overuse (associated with severe exacerbation risk[6] and potential benefits of providing ICS during reliever inhaler use).[7] Overuse of SABA relievers with underprescribing of ICS inhalers is also associated with a greater risk of hospital admission.[8] Problematically, SABA prescription alone potentially reinforces erroneous beliefs that reliever inhalers are more important than preventers. ICS/formoterol inhalers take advantage of the patient's instinct to take medication when symptoms present but have the advantage of concurrently providing anti-inflammatory steroid for improved longer term clinical outcomes.[3]

When a patient seeks help in the ED, this is a reachable and teachable moment.[9] With only a third of patients followed up after an emergency presentation within the recommended timeframe,[10] this opportunity may be particularly important and could improve self-management, which is associated with increased patient autonomy, reduction in hospitalisations and ED presentations, and improved quality of life.[11]

However, implementing change of behaviour within the healthcare context and ED in particular is complex. There is limited evidence that prescribing separate ICS inhalers on discharge from ED is effective[12] and however prescribing combined inhalers ICS/formoterol on an MART regime, as the preferred treatment regime, may have potential. For successful implementation, the context within which HCPs are working, and their views, needs and experiences in relation to their behaviours (eg, prescribing, following guidelines) should be understood.[13 14] This can inform the development of interventions designed to improve patient care and smooth their implementation. The objective of this study was to explore the health beliefs and behaviours of HCPs relating to asthma care and their attitudes to changing long-term asthma medications in the ED.

METHODS

This study follows the COnsolidated criteria for REporting Qualitative research Checklist.[15]

Study design

A qualitative approach was taken, using one-to-one semistructured interviews.

Participants and recruitment

The study used a purposive sampling strategy to ensure balance and breadth of views across professional role, experience and context of healthcare delivery. The eligibility criterion was that participants needed to be a registered HCP in the UK with recent experience of providing emergency asthma care to patients. When considering sample size in qualitative research, the emphasis is on achiving a sufficient range of perspectives and ensuring adequate information power.[16] In this study given the aim, sample specificity and analysis method, it was estimated that approximately 20 participants would be sufficient to provide information power. The study was advertised on social media as well as via email distribution lists, which contained information about the study (online supplemental file 1).

Data collection

Semistructured interviews were conducted between November 2021 and June 2022. An interview topic guide was constructed, informed by the literature, theory and discussion between the authors and the patient and public involvement (PPI) panels (online supplemental file 2). The questions explored beliefs about patients' asthma self-management, beliefs about the acceptability of commencing a ICS/Formoterol inhaler in the ED and discharge management in the ED.

Interviews were conducted either face to face or online via MS Teams, by the lead researcher who was a female registered nurse working in London, UK, with emergency nursing and clinical research delivery experience. This study was conducted as part of a PhD to understand the beliefs and behaviours of adults presenting to the ED with asthma, and their attitudes to changing long-term asthma medications in the ED, funded by AUKCAR, based at Queen Mary University of London (online supplemental file 3). There were no other sources of funding for this study. Several of the participants were known to the interviewer and the impact of this was considered in the analysis.

All interviews were audio recorded, transcribed verbatim and anonymised. An external company was employed to provide transcription services for the recorded interviews. Field notes and a reflexive diary were kept to ensure the subjectivity and positionality of the researcher, which were considered throughout the research process.[17]

Data analysis

Transcriptions were exported to NVivo (V.12, QSR International) for analysis.

Reflective inductive thematic analysis was chosen for this project, recognising that the researcher's position is a necessary, unavoidable and integral ingredient in the process.[18] The following steps were taken by IS[18]: (1) data familiarisation, (2) inductive generation of initial codes (3) identification of shared patterns of meaning across the dataset, (4) development of candidate themes, (5) themes defined, (6) reporting. In addition, all transcripts were read by all authors, and two transcripts were also coded by PP and LS. Coding and theme development involved discussion with the team throughout. Clinical experience, pre-existing knowledge and positionality were critically interrogated as part of the research process, using the reflexive diary, discussion with the team and PPI panel throughout, which enhanced reflexivity and interpretive depth.

Ethics

This study obtained HRA approval (REC Reference 21/LO/0665).

Patient and public involvement

The AUKCAR and Barts Health Emergency Department PPI panels contributed to the development and design of this study and the results were presented to them to facilitate interpretation and to refine the implications of the findings.

Table 1 Participant sampling strata characteristics

Sampling strata	Seniority	Junior (ie, band 5/6 nurse, EM trainee)	Senior (ie, EM consultant, GP, band 7/8 nurse)
	Professional role (aim 2–3 per role). Maximum 20 participants	ED nurse=1	ED nurse=2
		Practice nurse=0	Practice nurse=3
		Doctor—EM trainee=3	EM consultant=2
		Doctor—GP trainee=1	GP=3
		Pharmacist=0	Pharmacist=1
			Respiratory consultant=2
			Respiratory specialist nurse=1

Practice nurse in the UK is a registered nurse who works in a GP surgery as part of the primary healthcare team. The NHS nurse banding system is part of the Agenda for Change, newly qualified nurses start as band 5, and band 6 nurses often have similar responsibilities to band 5, with more specialised training and are often called 'Junior Sister'. Band 7 and 8 include advanced nursing roles such as 'Senior Sister, advanced nurse practitioner or matron.
ED, emergency department; EM, emergency medicine; GP, general practitioner.

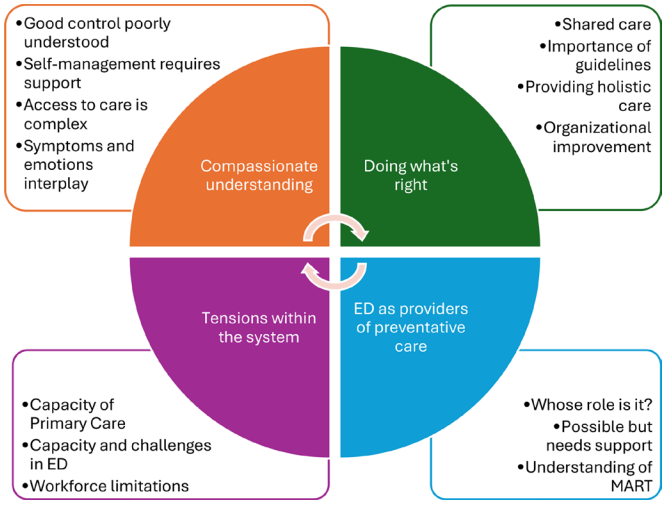

Figure 1 Representation of the themes. ED, emergency department; HCP, healthcare professional; MART, maintenance and reliever therapy.

RESULTS

Sample characteristics

Interviews with 19 HCPs who were based in locations across England and Wales were conducted. Nine participants worked in emergency care (including urgent treatment centre), seven in primary care and three respiratory specialists in secondary care (tables 1 and 2). Interviews lasted between 15 and 53 min, with an average of 30 min.

Overall findings

Four main themes were identified (1) compassionate understanding, that is, recognising the accessibility of ED, patients' self-management and the emotional aspects of exacerbations; (2) doing what is right for the patient, that is, maximising a reachable moment; (3) tensions of capacity in the system, that is, acknowledging workload within ED and (4) ED as providers of preventative care (figure 1).

Theme 1: compassionate understanding

HCPs understood that managing asthma was a complex task exacerbated by several challenges for patients. They felt some patients perceive their asthma to be a mild, common condition with frequent symptoms wrongly considered as 'normal', which can potentially lead to a complacency in the need for preventer medication and overuse of SABA relievers:

> They think their asthma is well controlled, but actually they use their Ventolin [SABA] inhaler every day and they don't think there's a problem with that - HCP06 Primary Care—Respiratory nurse specialist

HCPs recognised the ED as accessible and a place of safety, showing compassion despite capacity challenges. They also acknowledged the interplay of anxiety and asthma, noting difficulty differentiating breathlessness causes. This challenge was felt to impact patients' ability to recall their escalation management plans and emphasised urgency to gain treatment.

> I think what brings people in general to the ED is that people know it's a place they can come for help most of the time…. And particularly if a GP surgery is closed, the question is where can you go for help? So a lot of people self-present to the ED—HCP09 Urgent Care, Dr GP

> I've never been hospitalised with asthma, but I understand that feeling and it is very scary…. breathing is seen as very fundamental to life, and when people can't breathe it panics them—HCP14 ED, nurse B5.

Theme 2: doing what is right for the patient

HCPs from all settings worried whether there was time for ED to provide holistic care, however many recognised that if delivered appropriately, patients are less likely to have a further exacerbation and present for emergency care, which would benefit everyone.

> I think if there was a more holistic approach to the patients, I think that would benefit the patients and healthcare system as a whole. …. I think if we could spend a bit more time with our patients initially I think in the long-term it would benefit everyone—HCP17 ED Dr clinical fellow.

> I'm a big advocate for preventer medication, and trying to explain to people why they require their preventers—HCP19 ED consultant.

Many participants felt they would need upskilling to have confidence in their abilities to recommend a change in medication:

> I'm not up-to-date with the different recommendations. So I probably wouldn't be confident enough to change someone's existing steroid inhaler to something different, no, I wouldn't. Unless I received formal training and education—HCP13 EM trainee.

Table 2 Participant characteristics

Participant characteristics	
Participants, n	19
Gender (M:F)	4:15
Specialty	
Emergency care	9
Primary care	7
Respiratory	3
Profession	
Nurse	7
Doctor	11
Pharmacist	1
Seniority (junior/senior)	5:14

When asked about switching patients' medications, the ED HCP participants spoke about a willingness to follow the guidelines, as guidelines are developed based on the evidence, and supported by specialists. Therefore, the actions taken would then be in the best interests of the patients. A desire for patients to receive follow-up care for the message to be reinforced was highlighted across the primary, secondary and emergency care professions.

> If there was a guideline in place, then yes, why not? If it would help preventing these patients coming into hospital, that has an impact on the ED. So yes, why not—HCP13 EM trainee.

> In the ideal world there would be a reinforcement on the day, the next day, two days after that and have the same message come through, but we often don't have that sort of capacity—HCP15 respiratory consultant

Theme 3: tensions of capacity in the system

HCPs understood that patients can have challenges in accessing primary care, both during an exacerbation and for follow-up reviews due to capacity issues and time constraints.

> If I was breathless and worrying about my symptoms, and I've been on the phone for an hour and a half or you know somebody… you're just going to hang up the phone and come to A&E, aren't you?—HCP02 ED Dr consultant

The perception from the emergency care professionals was that patients would struggle to get a follow-up appointment in the recommended timeframe.

> I know we're supposed to recommend a GP visit within 48 working hours, and that is utterly ridiculous. I can see that it's a very good aspiration to have as a health system.… You can't just get them, it's really bad—HCP02 ED consultant

All groups expressed concern about the capacity of the ED team to deliver interventions for long-term asthma care.

> Everybody's over worked, and the capacity is so stretched that I'm like do they have time to do that?—HCP12 PC Dr GP

> So part of me is like yes, great, if we can stop them coming in, fantastic. But another part of me is like we need good community care for these patients. Because actually it's not sustainable for them to come into A&E all the time. So I'm quite divided on that.…The pressure of time. The pressure of acuity. If somebody's finished…if somebody's acute asthma has…is no longer exacerbated, do we need that bed? Actually, yes—HCP14 ED nurse B5

Significant workforce, with high vacancy rates in the nursing workforce, and burnout were noted. Frequent rotations within doctors' training pathways were seen to further complicate implementing behaviour change interventions and the delievery of necessary training. One proposed solution was a liaison nurse between respiratory medicine and the ED, responsible for patient follow-up and/or training ED HCPs, although opinions on this role were mixed.

> Our workforce is rapidly turning over, nurses and junior doctors, and I guess that's where things, like having a nurse from outside who's a more permanent of staff going in helps. I think that the cardiologists have got it right with that in terms of nurses going in and in terms of ramping up the seriousness and taking it a little bit out of ED's hands and saying well, we need someone to come in and oversee in that. That probably causes a bit of, I don't know, I'm not an ED doctor, but a bit of hackles being raised at times—HCP16 respiratory consultant.

Theme 4: ED as providers of preventative care

The initial reaction across all the HCPs was a belief that switching long-term medication was not the role of the ED and should be an activity that occurs in a primary care setting. Several ED professionals as well as primary care clinicians described switching long-term medication as being part of chronic disease management and perceived that this was not part of the ED role.

> But it's not our role to be managing long-term conditions, and therefore we don't get the same training to manage long-term conditions… I wouldn't change what they're on, I don't feel confident in changing preventers—HCP18 ED Dr EM trainee.

> I have to say I don't think it's their role…. it's not fair to ask an A&E department where let's say it's someone that's presenting and you don't know the ins and outs of their life and their behaviours to be making changes to their medication—HCP12 PC, GP.

> everyone wants me to give an extra minute of time to each patient. But if that's…we see 360 a day. There is no one with that spare time… We're a target rich environment, there's lots of opportunities, we just have not got the resource, the staffing support to do so— HCP19 ED consultant.

However, as individual interviews progressed, with questions moving from general views on ED making a change to long-term management to the specific example of a change to ICS/formoterol, a juxtaposition was presented, where the professional expressed that, if certain conditions were met or the context was right, then their attitudes shifted from 'not my/their role' to it is 'possible with support', for example, with training, education, evidence, guidelines and support provided.

> I think if it was clearly in the guidance and there were specific criteria of when you would do it, then I don't see any reasons not to—HCP18 ED, EM trainee doctor.

> If I knew that, if I was instituting something that was approved by the clinical commissioning groups, that they'd get followed up in 48 hours, and if it's agreed with our GP colleagues, yeah, okay, fine—HCP19 ED, consultant.

> I think that A&E can make changes, but I think it needs to be simplified—HCP15 respiratory consultant.

For GPs when considering the specific example of switching patient to ICS/formoterol in the ED, it was felt to be an acceptable change, if the ED HCPs were confident to do so, and if the patient was able to absorb the information:

> I think if its a clear indication and it's clearly expressed in a discharge summary that it seems like a reasonable thing—HCP10 PC GP.

> If the patients are able to take in the advice, then I think it's definitely… Yeah, I think that would be a good thing to do—HCP12 PC, GP.

ED professionals recognised that their knowledge in relation to long-term asthma medications was limited, specifically in relation to ICS/formoterol, and training would be required to give them the confidence to make a change.

> So the thing about that is I don't know anything about it [MART]. So you'd have to do some education I think around it—HCP09 UTC Dr GP

Furthermore, it was suggested that having a guideline in place, which would help emergency clinicians identify the right patients, and the right change, with the support in place from the local specialists and national guidelines, would support change.

The lack of follow-up capacity from the ED was a big factor in consideration of change, with ED HCP finding the previous

guideline recommendation for a 48-hour review[19] unrealistic for patients, while desiring follow-up review for both safety netting and ongoing disease management:

> I'm not in a position to follow that up to see whether or not it's worked. I think that's a responsibility of someone who has an overarching level of care for that patient—HCP19 ED, consultant.

A need for follow-up to reinforce and continue any changes for these patients was highlighted with primary care HCPs highlighting communication to both the patient and primary care as critical.

> put it in the discharge letter that they get, make sure you follow-up with a practice nurse just to talk this all through—HCP07 PC, practice nurse.

> If we were able to tap into a nurse led clinic or something to bring people back, even if it was a telephone clinic or something, that might make me happier to do it, rather than just prescribing a long-term steroid and then leaving them to it—HCP02 ED, consultant.

DISCUSSION

This study constructed four themes around the long-term management of asthma in the ED and provided insight into HCPs' attitudes to changing long-term medications, particularly ICS/formoterol MART regimes. While HCPs generally supported switching patients to MART regimes, in accordance with guidelines and training, they expressed concern about altering long-term asthma therapy in the ED, citing issues like clinical knowledge, time, patient capacity and communication with primary care. This reflects broader system pressures, where the need for change is recognised, but there is limited capacity to implement it. Thus, careful consideration of the implementation context is essential. A key finding was the role of evidence-based guidelines within which the change in management may be an acceptable intervention in the ED.

Many participants, across ED, primary and secondary care, felt that the ED was not responsible for long-term asthma management, however, they were open to a specific task, such as prescribing an ICS/formoterol inhalers. The increased openness during interviews may reflect social desirability or a preference to make targeted changes over generalised ones. Many participants required an explanation of MART, therefore, a brief explanation was often provided during the interview (see online supplemental file 2), and that explanation may have contributed to changes in the views of some participants.

Increasingly patients will be on an AIR or MART regime under new guidelines. ED HCPs will need appropriate training to ensure that patients remain on the right regime on discharge, rather than reverting to an SABA reliever. Wider literature has shown that there is a lack of awareness and understanding of MART,[20] finding that doctors often reported continuing to prescribe only as-needed SABA in patients with mild asthma, despite the recommended shift to as needed ICS/formoterol in the updated global recommendations.[3] This suggests that real-world practice takes time to evolve and adopt recommendations—and the importance of exploring options, such as ED implementation, as a potential strategy to increase the uptake of global recommendations.

Atkinson and colleagues argue that ED teams, trained for acute problems, are not equipped for chronic disease management, or preventative healthcare.[21] This might explain why ICS prescriptions are infrequent, despite guideline recommendations.[22] ICS/formoterol inhalers, providing both acute and preventative treatment, may be more acceptable for ED prescribing. Participants also highlighted barriers like high workforce turnover, which hampers training, and challenges related to patients' understanding and time constraints in the ED.

Compliance with guideline-recommended therapy for asthma in ED is suboptimal.[23] Studies show that prescribing according to clinical guidelines is poor, whatever the clinical setting, with the main barriers being time pressures and limited resources.[24] Therefore, despite HCPs expressing willingness to implement an intervention supported by guidelines, additional implementation support is needed. Low-resource, low-intensity interventions are more likely to be supported in the ED.[9] RCTs commencing patients on preventer inhalers in the ED have been shown to reduce unscheduled care.[25 26] Other interventions have explored providing patient education, such as metered-dose inhaler technique, have been shown to require a time commitment, which may not be feasible in the ED, suggesting alternative solutions that require less lengthy instructions, such as the use of breathe-actuated devices may be required.[27]

Our interviews revealed that participants saw follow-up after ED attendance as essential, but felt the 48 hours recommendation was unrealistic due to capacity issues within primary care. This aligns with the Asthma UK survey, which found only 34% of patients received follow-up within the recommended timeframe.[10] The revised British Thoracic Society (BTS) Asthma Attack bundle, now recommends clinical review within 4 weeks, acknowledging the challenges of meeting the 48-hour target.[19] Participants across primary, secondary and emergency care agreed that conversations about medication changes should be happening in primary care, as asking EDs to handle non-emergency tasks was seen as unfair and burdensome on emergency services. However, patients remain vulnerable in the month following an exacerbation, and not all engage with primary care services - resulting in a gap in care that warrants attention. Concerns of system capacity were raised, with shifting activity from one part of the system to another may compound this issue but may be in the best interests of patients. A review of ED interventions to reduce unplanned attendances found that a community follow-up or referral may have contributed to their effectiveness.[28] Specialist nursing interventions have also been found to reduce unscheduled care in deprived multiethnic health districts.[29] Strategies to improve follow-up access, to either primary care or a specialist nursing service, should be considered.

The NovelQ study, which explored patients' attitudes towards ICS/formoterol, taken using the AIR regime in mild asthma, highlighted the importance of the prescriber–patient relationship in discussing rationale, addressing and providing tailored education.[30] While primary care is ideal for routine asthma management, the ED serves as critical touchpoint for educating and managing asthma in patients who might otherwise lack access, helping to reduce health disparities through targeted interventions. Poor asthma control has previously been tackled within ED settings[9] with variable success at improving longer term asthma outcomes. However, prescription of ICS/formoterol inhalers as long-term medication and as reliever therapy in the ED would be a novel approach. To implement this HCPs would benefit from tools that increase their prescribing confidence, such as a guideline-based brief decision support tool to make treatment options clear, simplify treatment options, while providing evidenced-based information on the associated benefits or harms.

Strengths and limitations

A key strength of the study was the purposive sampling across diverse professional groups and role, enabling comparisons

between HCPs in different settings, such as the perceptions of patients' asthma knowledge. This approach provided a broad understanding of challenges in managing acute asthma exacerbations across primary and secondary care, though some views may not have been captured. Participants were recruited from ethnically and socially diverse UK locations (eg, London, Bristol, Manchester and Wales) with the focus guided by the research question. As with much qualitative research, the researcher and analysis approach are integral to the results, which were reported transparently (online supplemental file 3).

The interviews aimed to understand whether asthma control could be improved by considering long-term treatment options in the ED, including switching to ICS/formoterol. Primary and secondary care professionals discussed their roles when patients were discharged from the ED, but their prescribing practices were not the focus. The SENTINEL project (SABA rEduction Through ImplemeNting Hull asthma guidElines) is an example of ongoing efforts to enhance outcomes for adult asthma patients in primary care.[31]

Use of ICS/formoterol inhalers following the 'AIR' therapy regimen has received licensing in the UK since the interviews were undertaken and the volume of evidence relating to harms of overuse of SABA relievers has grown over the period.[3 5–7 32] One limitation is that it may have been valuable to ask participants their knowledge regarding the benefits and harms of SABA relievers in the light of this new evidence, and whether that would influence their willingness for new interventions.

Implications for practice/policy

For behavioural changes to be effected successfully within healthcare provider groups, assessment of drivers for current behaviours and exploration of potential drivers for change are essential. This study explores the specific beliefs of HCPs relating to medication optimisation for patients with asthma in the ED. We found that HCPs perceive patients often tolerate frequent symptoms and poorer asthma control, in part due to lack of knowledge about their asthma and poor adherence to preventer medication. This supports a rationale for moving appropriate ED patients to an ICS/formoterol inhaler, utilising a reachable and teachable moment when patients may be more receptive to understanding a rationale and implementing a change in their medication regime, provided sufficient support and appropriate resources were available.

CONCLUSION

HCPs recognised the ED as a place in which patients increasingly seek help for the management of long-term conditions. Despite some disagreement on whether the ED should have a role in chronic disease management, and concerns about capacity in the system, emergency healthcare providers felt that it would be feasible to prescribe more optimum inhaled therapy in some instances. ED professionals wanted to follow guidelines and training to ensure action taken was in the best interests of the patients. Implementation would require good communication between primary care and the ED, and resources within the ED to add this practice change.

X Imogen Skene @ImogenSkene

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Patient and public involvement Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

Patient consent for publication Not applicable.

Ethics approval The study has obtained ethical approval from Camden and Kings Cross Research Ethics Committee HRA approval (REC reference 21/LO/0665). The study received NHS governance approval from Barts Health NHS Trust. Participants gave informed consent to participate in the study before taking part.

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ORCID iDs
Imogen Skene http://orcid.org/0000-0001-5215-2899
Benjamin Michael Bloom http://orcid.org/0000-0002-3016-4925

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