Emergencies in General Practice

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***Background*:** Immediately life-threatening emergencies occur rarely in general practice, however when they do occur the primary care teams must be prepared to intervene swiftly and effectively.

Aim: To explore the educational needs of GPSTs in Wales with respect to the management of emergencies in the community setting.

***Methods*:** The study examines the collective educational needs of GP trainees as a group and considered both felt educational needs – as perceived by trainees themselves; and normative educational needs - as defined by subject experts in the form of qualified GPs and GP trainers (Grant 2002). Participants were recruited from across the Wales to represent a variety of health boards and career stages. A total of 5 GPSTs and 5 GPs underwent semi-structured interviews following an interview schedule based upon Critical Incident Technique as first described by Flanagan and subsequently modified by other authors (Bradbury-Jones and Tranter 2008; Viergever 2019). Interviews were held via video call, transcribed in full and underwent inductive thematic analysis (Braun and Clarke 2006) to identify both latent and semantic themes (Kiger and Varpio 2020).

'… the patient collapsed and wasn't neatly on a bed in A&E. They collapsed and were between… You know they were on the floor… crashed over the fence into the children's play area.'

***Results*:** Five key themes were identified and a model developed to characterises the types of emergencies that occur in primary care.

Theme 1	The nature of emergencies in primary care
Theme 2	Motivation to learn about emergencies
Theme 3	Transferring learning to the community setting
Theme 4	Culture Shock for GPSTs
Theme 5	Non-technical skills

Trainees cited a variety of ***motivations*** to learn about the management of emergencies. Many felt a social pressure to be equipped to manage such eventualities effectively, whilst other talked of their desire to avoid unnecessary hospital admissions. There was a sense of pride amongst the profession that GPs are experts in managing risk/uncertainty and a desire amongst trainees to be 'a true generalist' with a wide variety of expertise including emergency skills. For others these skills were of particular relevance due to their own outside interests such as involvement in sports clubs or high risk activities such as scuba diving or mountaineering.

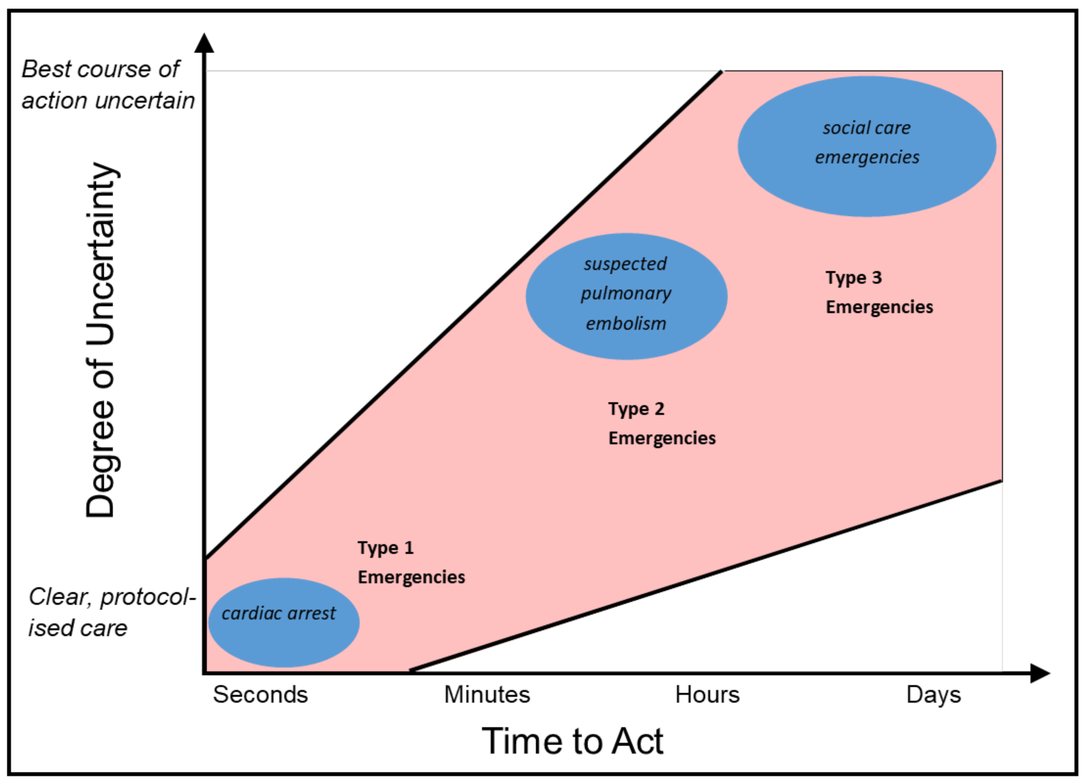
'We [as a professional group] are the ones that manage risk in the community. That's what we're good at.'

The transition from hospital based training to practicing in the community setting can be a significant challenge for trainees, as they experience a ***change of culture***. Many reported initially struggling in the face of limited access to investigations and diagnostic uncertainty, especially during home visits where trainees at times reported feeling isolated and vulnerable. This effect was likely compounded by changes to primary care as a result of the covid-19 pandemic.

'In the hospital you have nurses. In primary care you are by yourself. I think that's the whole thing. You are... you are a nomad. And you expect that you come from one well-oiled machine to the other, but primary care is not a well-oiled machine for emergencies.'

Type 1 emergencies are characterised by a high degree of urgency and clear protocolised treatment guidelines. Examples include conditions such cardiac arrest, anaphylaxis and status epilepticus. These kind of emergencies occur rarely in general practice, with a typical GP reporting managing such and event once every few years. This rarity presents difficulties for GPSTs who may never experience such an event in the community setting during training. Whilst courses exist that deal specifically with type 1 emergencies, study participant felt that none were sufficiently tailored to the unique challenges of managing these conditions in the primary care setting.

Type 2 emergencies are less immediately life-threatening than the former, but patients are at risk of their condition deteriorating without prompt treatment.



Examples include suspected cardiac chest pain, pulmonary embolism and stroke. This range of conditions is far more common that type 1 emergencies and typically falls into the 'amber 1' or 'amber 2' ambulance triage categories. Primary care teams are frequently required to manage patients with these conditions for a prolonged periods of time whilst waiting for an ambulance to arrive. Emergency department rotations were felt to be particularly helpful in preparing trainees to manage this group of conditions.

'I think all doctors should do at the time in GP and I think all GP should do a time in ED [emergency department]'.

Type 3 emergencies are unique to primary care and combine high degrees of uncertainty regarding the most appropriate course of action, combined with a less immediate threat to life. These kind of emergencies are relatively common in primary care and include: the breakdown of social care, mental health crisis and palliative care emergencies. Such situations often required the clinician to navigate medico-legal and ethical dilemmas, often with little available background information and limited resources. Two clinicians presented with the same type 3 emergency may devise entirely different management strategies according to their own prior experiences, expertise and approach to risk management.

Emergencies can occur at any time of day or night and to manage them effectively requires a high degree of familiarity with local healthcare systems and resources, termed ***'Healthcare Systems Literacy'*** by one experienced GP trainer. Many GPSTs reported finding working in the GP Out of Hours setting a particularly effective way of gaining this skillset citing the high acuity of clinical cases encountered on a typical shift and the benefits of mentorship by an experienced Out of Hours GP.

In contrast to trainees, the qualified GPs frequently highlighted the importance of ***non-technical skills*** such as teamworking, leadership and the ability to provide support other staff members following an emergency, suggesting that this is an important learning need unknown to the learners themselves.

'I've got the confident type of personality that allows me to do that… yeah, well, superficially not underneath it, not under the bravado [laughs]. …but a lot of people haven't, so I think training in that role to give people the confidence to do that is important.'

***Conclusions*:** The retention of emergency skills is an important issue for GPSTs and the time has come for the development of an emergency course tailored to the specific requirements of GPSTs. Such a course could also have relevance for qualified GP wanting to maintain and update their skills. Consideration should be given to making emergency department rotations a compulsory part of GP training.

How this fits in: To the authors knowledge this study is the first of its kind to explore the preparedness of GPSTs for managing medical emergencies in the community setting and is of relevance to the entire primary care team, particularly those involved in GP training.

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