‘Heads you win, tails I lose’: a critical incident study of GPs’ decisions about emergency admission referrals

Owen P Dempsey and Hilary L Bekker


Background. Acute hospital Trusts’ inability to cope with the numbers of emergency admissions has led to the production of guidelines by the Department of Health aimed at reducing inappropriate admissions by GPs. There is a paucity of research describing GPs’ decisions to (not) admit patients and it is unclear how effective these guidelines are in changing these practices.

Objective. To describe GPs’ decision-making about referrals for emergency hospital admissions.

Methods. Observational design using the critical incident technique to elicit data. Eight GPs in West Yorkshire recorded details of memorable emergency admission decisions, both prospective and retrospective consultations. The transcript data were classified by theme using NUD*IST.

Results. Forty prospective and 8 retrospective consultations were analysed. Factors affecting GPs’ decisions were:

- Identification of all consequences for all stakeholders in the decision.
- Emotional impact on the GP of managing these conflicting needs.
- ‘Peer review’ of the GP’s professionalism about the decision.
- Contextual pressures limiting effectiveness of GPs’ decision-making.

Conclusions. Referral decisions require the evaluation of several conflicting consequences for many stakeholders in time-pressured and peer-reviewed situations. These factors encourage the use of heuristics, i.e. GPs’ judgements will be influenced more by the social context of the choice than information about the patient’s condition. Emergency referral guidelines provide more information to evaluate from another stakeholder; introducing guidelines is likely to increase GPs’ use of heuristics and the making of less optimal decisions.

Keywords. Critical incidents, decision-making, emergency admissions, health professional, referrals.

Introduction

Increasing emergency admission rates and reductions in the numbers of acute hospital beds have meant that reductions in emergency referral rates are being encouraged.1,2,3 As GPs are responsible for between 40–70% of the three million annual emergency admissions in the UK, their referral decisions have been under scrutiny.1 Some studies suggest that up to 20% of GP admissions are inappropriate and patients would be adequately cared for in a less high-tech environment.4 There is an implication that GPs are ‘playing it safe’ and that this approach is ‘wrong’.5

There is little empirical work attempting to describe the factors associated with GPs’ decisions to refer patients for admissions to emergency units. Evidence from research into out-patient referral decisions suggests that these are made up of ‘trade-offs’ between concerns for the patient’s health and their own reputations amongst hospital colleagues.6 These out-patient decisions are difficult because such trade-offs involve conflicts of interests for each choice. Emergency referral decisions are likely to be equally, if not more, complex.

In an ideal world, medical decisions should be made by assessing all the possible options, assessing the associated risks, and evaluating the desirability of each consequence, for each stakeholder, before selecting the optimum choice.7 However, humans’, and one suspects GPs’, choices are influenced by factors outside the decision.
such as the tendency to over-estimate the likelihood of a negative outcome or pathology, to over-interpret the relevance of adverse past events on the likelihood of re-occurrence, and to rely on respected others’ judgements.8,9,10 Although we all regularly make decisions using this contextual information, these heuristic processes or ‘cognitive shortcuts’ increase the likelihood of wrong decisions being made.7 Further, we are more likely to employ heuristics when making choices under time-pressured and/or high conflict conditions.11 If GPs are making decisions under these conditions, it is probable that some referrals are made using heuristics and will be ‘inappropriate’.

This study’s aim is to describe the factors that GPs consider when making choices about referrals for emergency hospital admissions. Until more is understood about GPs’ decision-making processes, it is unclear what type of intervention will facilitate reductions in ‘inappropriate’ referrals.

Methods

Design
An observational design employing the critical incident technique. The critical incident technique is used in health services research to provide a focus for semi-structured interviews when addressing real-world decisions made by health professionals and patients.12,13

Sample
A purposive sample of eight GPs, selected from a list of GP principals practising in Huddersfield and Calderdale, West Yorkshire, UK. The sample included individuals by the following characteristics: age, sex, number of partners, urban/rural, and non-academic/academic.

Materials
Pro-forma for critical incidents—a prompt to aid the elicitation of consistent information from each encounter.

Semi-structured interview schedule—a focus group made up of a convenient sample of five GPs was used to develop questions for the semi-structured interviews (see Appendix).

Procedure
GPs were invited to participate by phone. GPs were provided with a pro-forma to record co-temporaneous details of the consultation that dealt with referral decisions for emergency admission over the next four weeks, i.e. prospective incidents, including demographic data, a summary of the consultation, the final referral decision and any associated discomfort during decision-making for the GP. GPs also made notes about three or four memorable emergency admission decisions from prior consultations, i.e. retrospective incidents. After four weeks, one of the authors (OD) interviewed the GPs about these critical incidents referring to the pro-forma and interview schedule. Interviews were audio tape-recorded and transcribed. Transcripts were sent to participating GPs for additional comments and/or correction.

Analysis
Transcripts were content analysed using NUD*IST (software programme that manages qualitative data; QSR International Pty Ltd, Melbourne, Australia). The program allows transcripts to be interpreted in terms of themes, categories and subcategories. To test the validity of the categories identified, a selection of four interviews were coded manually by five colleagues. In accord with established techniques to enhance validity of qualitative data, purposive questioning and discussion of disagreements between coders were performed.14–16 The interviews were re-analysed using the revised coding frame.

Results
Eight GPs were interviewed, two of whom were female. Two had less than five years experience, four had 5–15 years, and two had more than 15 years. There were four rural and four urban GPs. The size of the practice varied, with one single-handed GP, five with less than four partners, and two with more than four partners. In addition to their GP duties, there was one LMC secretary, one postgraduate general practice tutor, and one part-time lecturer in community and primary health care. Five interviews took place in the GPs’ homes, and three at their places of work.

Of the 48 consultations investigated, 33 (80%) were for patients over the age of 55, and four (9%) for patients less than 16 years of age. 32 (78%) were female. Six of the eight memorable consultations were associated with a poor outcome for the patient, one with a good outcome, and for one the outcome was unknown. There was a broad range of presenting problems (Table 1).

The GPs felt discomfort with the decision at the time it was made, for both the prospective and the retrospective ‘memorable’ consultations, in about half the

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consultations. Of the prospective cases, six out of the 19 associated with discomfort were not admitted by the GP (Table 2).

Four themes emerged as distinct factors influencing GPs’ emergency admission decisions. These are described with examples below.

The identification of all of the consequences for all of the stakeholders in the decision, including patients, carers, GP colleagues, and hospital staff and resources
The GPs’ primary concern was to identify those consequences that affected their patient’s, and often the carers’, health. The decisions often impact on the patient’s health but also on social, family and health service resources and needs.

“The social factors were pushing me two ways. On her side she didn’t want to leave her own home again, she hated going into hospital and didn’t want to lose her independence. On the daughter’s side I was having to work out could the daughter cope any longer . . . Was it fair to get her to cope any longer . . . Was there enough back up for this old lady to justify keeping her at home.”

The emotional impact on the GP of the need to manage the conflicting needs of several stakeholders
A dominant theme was the difficulty GPs had in trading off the conflicting needs of two or more stakeholders. It was not always clear which consequences of which choice were best for the patient, or other stakeholders i.e. both choices could have both positive and negative consequences. As a result, GPs often experienced emotional stresses when prioritizing the conflicting needs of these different stakeholders.

“The options that I considered were to admit to hospital, to leave her with her relatives and ask for district nursing and the GP to visit in the morning and to give extra analgesics, alternatively, the third possibility would have been to contact the social services for emergency admission to an old people’s home . . . Both the daughter and the son in law were working full time . . . finances tight . . . I admitted her back to the hospital . . . and that made me feel, well, guilty in the sense that we are all brought up to say you shouldn’t admit backs . . . ”

The potential review by peers and significant others of the GP’s professionalism about the decision
The GPs were concerned about stakeholders’ perceptions of their competence. This involves issues such as colleagues’ evaluations of their decisions, medico-legal risks, and societal and media views on the GPs’ competence and professionalism. The views from these stakeholders enhanced GPs’ feelings of accountability for their decisions, regardless of the patient’s health outcome.

“I think I’m more cautious now, I have been sued twice, once for a missed un-united fracture and once for a missed Achilles’ tendon rupture. I am much more aware a) for my own personal self worth, I don’t want to make mistakes . . . and b) I am much more worried now about complaints about getting sued: getting criticized . . . I am a lot more defensive in my medical practice now than twenty years ago . . . and the relative lack of continuity and the deputising service and the lack of back-up means that you have to be that much more careful as well.”

“It’s very easy once you get somebody in hospital who the nurses have undressed, you’ve done one or two tests. You see with great clarity what’s wrong with them which isn’t as apparent when you see them in very inadequate circumstances at home but, nevertheless, I wouldn’t like people to feel that I hadn’t really performed professionally as well as I should do.”

“. . . She couldn’t really stand up by herself . . . my worst fear was that she would fall and die on her own in the house, but there was also this thingy batting around the back ‘the doctor left this woman at home when she obviously wasn’t fit to be at home’—and also that she would need to be seen the next day and that wouldn’t be me (not at work the next day)—I did feel I had sort of gone against her wishes . . . so I wasn’t that happy really.”

Contextual pressures limiting the effectiveness of GPs’ decision-making processes
Pressures of time, associated bureaucracy, cultural or social barriers to allowing full examinations, chaotic households, and the availability of medical technology in the community all reduce the tendency or opportunity to explore fully all the information and/or options.

“I don’t have any confidence in Social Services generally; this was away from my own networks and I thought of the hassle of trying to get an emergency Social Services admission. At the very best we wouldn’t get her in for two or three hours . . . and I was on a
shift that was ending at one o’clock and this would have been about half eleven or something. And I had to get on and get cracking. It would have involved me leaving the house with a hope this is going to work if it doesn’t you will have to phone us again . . . I was thinking to hell with this let’s get her in hospital that’s a safe quicker (option)."

“I wasn’t happy with the patient’s condition . . . I wondered about admitting him and he didn’t want to go in and I didn’t push it . . . I thought he had swollen ankles because he had been sitting around. It couldn’t be anything much because he had got these normal blood tests. My nose was telling me that there was something going on . . . and I hadn’t got a diagnosis . . . for some intangible sixth sense I wasn’t happy but for some reason I didn’t go on those gut feelings . . . I guess it’s the gut feeling that can be lost when there is time pressure particularly.”

Discussion

This study is one of the first to describe GPs’ decision-making about referring patients for emergency hospital admissions. The findings confirm that these decisions are often highly consequential with the ever-present risk of adverse consequences such as ill health or even death, and they involve difficult trade-offs for the GP to manage. For stakeholders who benefit from the decision there will be others who may feel disadvantaged. The GP is in the middle, hence ‘Heads you win, tails I lose’, reflecting dilemmas that lead to emotional stresses for GPs. Further, GPs feel under contextual pressures that can be described under the headings: ‘Political, Economic, Social and Technological’ (the PEST acronym), and others that arise from ‘being under the spotlight’ of professional peer and societal review; GPs always feel under pressure to be seen to be doing something active, even when ‘doing something’ is not the optimal or appropriate decision.

There are a number of reasons to assume these themes are robust. First, the study employed an established methodology—the Critical Incident Technique—carried out rigorously. The elicited incidents were varied across specialty, admissions decision, and desirability of outcome. Second, the sample, sufficient for a qualitative study, was purposive and included diverse GP experiences and opinions. Third, the resulting themes were consistent with prior findings regarding outpatient referral.6 The main limitations of this study were i) it was a qualitative study and it is unclear how prevalent these issues are for all GPs in the UK, ii) the incidents were self-selected and may over, or under, represent particularly good or poor decisions, and iii) the interviews were retrospective and not all factors in the decision process may have been identified.

We know from previous studies that consequential decisions made by experienced professionals often employ heuristics where common patterns are recognized and decisions are made upon early ‘reasonably satisfactory’ hypotheses.16,17 Most of the time these short cuts work well and are an efficient use of the practitioners’ resources. However if situations become increasingly pressurized by time, relatives’ attitudes, communication problems or emotional conflict, then there is a danger that the use of cognitive short cuts may lead to sub-optimal decision making.7

These results suggest that GPs will be employing heuristic judgements to make decisions about patient referral for emergency admission. Although further research is required to address this question explicitly, it is reasonable to assume that some decisions will be ‘inappropriate’. However, it is unlikely that guideline recommendations will encourage GPs to make more ‘optimal’ decisions. Rather, guidelines require GPs to evaluate more information from another stakeholder with adverse consequences for the GP should targets not be met. Indeed, these factors suggest that guidelines may increase GPs use of heuristics and lead to more sub-optimal or ‘inappropriate’ referral decisions being made.

Attention also needs to be given to the contextual pressures that affect GPs’ decision-making processes and outcomes.2 Certainly, further research is required to assess the prevalence and impact of these factors on GPs’ decision-making and the relationships between the features of their decision-making processes and good or poor outcomes. Finally, interventions should be designed to facilitate GPs’ choices about referral, such as an aid that integrates components of the presenting problem with varying priorities of stakeholders, perhaps by eliciting patient’s and carers’ preferences.18

Conclusions

Referral decisions are complex and involve many consequences, several stakeholders and uncertainty. These factors, time pressure, concerns about professional accountability and conflict in trade-offs between stakeholders’ priorities suggest some decisions to admit will be ‘inappropriate’. However, in a ‘heads you win, tails I lose’ situation, directives to reduce referral rates and guidelines on clinical management are likely to compound the problem. Initiatives to reduce GPs’ emergency admissions rates require research and development of techniques that allow assessment of preferences and integration with stakeholders’ priorities during the consultation.
Appendix

The interview schedule was developed during the course of the study in the light of on-going analysis, it provides a guide for topics to be explored and developed in a semi structured format.

Introduction

Explain study aim is to explore the range of factors associated with the GPs’ decisions to refer patients for emergency admissions, that the patient identities will be protected and the data unattributable to the GP.

Description of the practice

Location, size, population ethnic/socio-economic mix, on call arrangements

The GP

Experience, time in this practice, full-time/part-time/special interests

The context

Circumstances of the request for the consultation, time of day, who by, urgency
Where did it take place
Who was present
Atmosphere and surroundings/signs of stress or anxiety associated
Previous knowledge of patient or family
GP’s previous experiences of similar situations

The consultation

Presenting history, non verbal clues
GP’s initial thoughts
On going interplay between the patient/carers/GPs
Differential diagnosis
Management options considered
Implications considered, for whom?
Final decision
Other pressures
Degree of comfort/discomfort with the final decision for the GP
If admitted, how might admission have been avoided
  Carer/at home care/investigations/outpatients/ability to review soon

Views on wider issues relevant to emergency admissions
Out of hours responsibilities
Role of deputizing services
Overall primary care workload
What is meant by avoidable/inappropriate admissions
Ways admissions might be reduced, made more appropriate

Thank the GP for time, remind re confidentiality, transcript to be sent to the GP for comments with payment.