Impact of a medicines helpline for patients

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ABSTRACT

Objectives The objectives of this study were to establish what happened to patients after they contacted a hospital-based medicines helpline, to describe the nature of the calls received and to measure patient satisfaction. The study also set out to investigate whether access to patients' hospital records or local expertise was necessary to answer the calls received.

Methods To assess what happened to patients after contact with the helpline and their satisfaction with the service, consenting callers were sent a questionnaire. To capture the nature of calls received, and investigate how often access to local knowledge was required, a retrospective analysis of calls was performed.

Results Patients and their carers followed the advice given in 95.9% (n=93) of cases. Patients rated their problem as having been resolved as the most frequent outcome (52.2% n=35), followed by feeling reassured about their medicine or illness (44.8% n=30). On a 6-point rating scale (where 1 was poor and 6 was excellent) 80.2% (n=77) of respondents rated the helpline service as 6, and a further 15.6% (n=15) as 5. Patients mainly called with concerns about safety or how to take medicines and some related to discharge errors. Access to local knowledge was required in 74.5% (n=149) of cases.

Conclusions The helpline helps to reassure patients when they return home from hospital. They trust and follow the advice given, and have their medication-related problems resolved. Prompt access to patients' records or local expertise is an advantage for the successful running of the helpline.

INTRODUCTION

Hospital admissions often result in changes to patients' medication.^{1 2} These changes should be clearly communicated to patients and their carers but rates of adherence have been found to vary widely, especially in the first 2 days post-hospital discharge.² Common problems include restarting medicines that have been discontinued and omitting newly-started agents. There is a clear case for providing medicines-related advice to patients during this critical period when they return home from hospital.^{1 3}

To help address this issue many National Health Service (NHS) trusts have a pharmacy-based medicines helpline, most of which are run by medicines information departments.⁴⁻⁶ The Medicines Helpline at University Hospital Southampton (UHS) NHS Foundation Trust was launched in December 2011 and has now helped over 2000 patients and their carers with a range of medication-related concerns. The service is advertised through various media including posters, cards, discharge summaries and online via the Trust's website.

The impact of medicines helplines upon patients' lives has been shown to be positive and reported levels of satisfaction are generally high.^{7 8} What is less well known is what happens to patients after they have used a medicines helpline, including whether they follow the advice given. It is also unclear what types of risks a helpline helps to mitigate.

The 'localness' of helplines might be anticipated to be important to their success because many calls require access to patients' records or to the team that have cared for them.⁹ However, robust data on this aspect are lacking.

AIMS

The primary aim of this study was to establish what happened to patients after they contacted the UHS Medicines Helpline including whether they followed the advice given and what they would have done if the service did not exist.

The secondary aims included measuring patient satisfaction with the helpline, describing the nature of the calls received, and assessing how often access to patient records or other local knowledge was required in order to answer the call.

METHODS

Patient outcome and satisfaction

To assess what happened to patients after contact with the helpline and their satisfaction with the service, consenting callers were sent a questionnaire (see online supplementary appendix 2). This was developed from previously published work and included a mixture of closed and open questions.⁴ Patients or their carers were asked to indicate their preference with regard to whether they received an electronic questionnaire or a paper version via the post. All patients or carers calling the medicines helpline were eligible to participate unless the call was not related to a medicine, or the caller was distressed or the question deemed to be of a sensitive nature (eg, patients who want to maintain their anonymity).

Outcome measures included whether a problem with a medicine was avoided, whether the patient felt reassured, whether they were able to start taking their medicines safely posthospital discharge or whether indeed they could stop taking a medicine. The study started in December 2013 and ran until 100 questionnaires were returned.

Nature of calls received

To describe the nature of the enquiries received, a retrospective review of all the medicines helpline calls received from January to September 2015 was undertaken using UK Medicines Information's enquiry management system MiDatabank.

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Local knowledge

To investigate how often access to patient records or other local knowledge was required in order to answer the call, a further retrospective analysis was undertaken during November 2013. Patient records included medical notes such as discharge summaries, prescribing records and pharmacy dispensing records. Sources of local knowledge included healthcare professionals who had been involved with the patient's care, and local policies and procedures.

Two medicines information pharmacists assessed 200 consecutive helpline calls independently of one another, categorising the need for access to these local resources as 'essential', 'desirable' or 'not required' (see online supplementary appendix 1). Any disagreement was discussed and a consensus was reached for each individual enquiry.

RESULTS

Patient outcome

During the study period, the UHS Medicines Helpline received 613 calls in total. Of the 157 callers who consented to be sent a questionnaire, 100 responses were returned (63.7% response rate).

Of the 100 questionnaire returns, patients (n=68) and their carers (n=32) followed the advice given by the helpline team, either fully or partly, in 95.9% (n=93)ⁱ of cases.

Patients contacting the helpline rated their problem as having been resolved as the most frequent outcome (52.2% n=35), followed by feeling reassured about their medicine or illness (44.8% n=30), and avoiding a problem with their medicine (26.9% n=18). For carers ringing the helpline the most frequent outcomes were that they felt reassured (56.3% n=18), that the problem was resolved (56.3% n=18) and that the patient was able to start taking their medicine (46.9% n=15).

Respondents were asked an open question about what they would have done if the helpline did not exist. The strongest theme to emerge was that they would have sought help from their general practitioner (GP), with many respondents commenting about the potential delay this would have caused in resolving their problem (see [box 1](#)).

Contacting other local healthcare professionals such as community pharmacists also emerged as a common theme, with some respondents commenting that these practitioners probably would not have had access to their hospital records and so may not have been able to resolve their problem (see [box 2](#)).

Other themes to emerge were that callers would not have known what to do if the helpline did not exist, or they would have worried (see [box 3](#)).

Patient satisfaction

In terms of patient satisfaction measures, 96.9% (n=94)ⁱ of respondents were able to contact the helpline easily and 99.0% (n=98) had their problem defined correctly. 100% (n=97) of respondents found the advice helpful, and would use the helpline again in the future. 98.0% (n=97) found that the helpline team gave them enough information, and 97.9% (n=95) were confident in the answer provided. On a 6-point rating scale (where 1 was poor and 6 was excellent) 80.2% (n=77) of respondents rated the helpline service as 6, and a further 15.6% (n=15) as 5.

ⁱNot all participants answered every question on their questionnaire hence the discrepancy in the outcome and satisfaction statistics.

Box 1 Patients would have contacted their GP

- ▶ 'I would have had to try and get more information from my GP [but] this is difficult due to not always being able to get an appointment. This service is clear and simple to use and I presume a lot cheaper than a GP appointment. Thank you'.
- ▶ '[I would have] gone to the GP but I'm not sure I would have received the reassurance I received so quickly'.

In addition to answering the specific points asked, many patients and carers took the opportunity to give the helpline team unprompted feedback. This included handwritten letters of gratitude but the following comment is an example of how patients and carers value the service.

'I am so grateful that we had someone with a thorough knowledge of the medicine who totally reassured us. We had encountered a period of intense worry regarding our four-year-old daughter's health and it was a real lifeline to be able to find out about her medicine at such a crucial time'.

Nature of calls received

Retrospective review of all the calls (n=637) received over a 9-month period during 2015 identified that patients and their carers mainly call with concerns about appropriateness or safety of their medicine (50.2%, n=320) or how to take medicines (39.6%, n=252). Over one third (39.4%, n=251) of calls arose because of mistakes or omissions by hospital staff.

These faults were categorised into one or more of four categories; transfer of care (eg, patient uncertain which medicines to take) 69% (n=174), ward discharge errors (eg, patient given someone else's medicines) 18% (n=45), dispensing errors (eg, patient supplied with wrong medicine by pharmacy) 4% (n=10) and prescription errors (eg, patient not prescribed an essential medicine at discharge) 9% (n=22).

Examples of recurring incidents are given below (see [box 4](#)).

Local knowledge

Retrospective review of further 200 helpline calls identified that patient records or other local knowledge were required in 74.5% (n=149) of cases. It was deemed essential in 56.5% (n=113) of cases and desirable in a further 18.0% (n=36) (see

Box 2 Patients would have sought help from another healthcare professional

- ▶ 'I would have contacted the local pharmacy for advice, however they would not have had access to my discharge letter and the rather complex and ongoing history of my particular circumstances and so I would have not had confidence in their ability to help me appropriately or as quickly as your service did'.
- ▶ 'I would have had to have phoned a pharmacy locally who would not have had the information about the operation and drugs given to my husband or I could have phoned the ward who might not have understood the drug reactions etc. So, thank you, medicines helpline'.

Box 3 Patients would have been anxious

- ▶ 'I would have continued taking my medication but we both would have been very anxious until I'd had another blood test'.
- ▶ 'I would have worried about taking the medication I was given and tried to contact someone to advise me so I found the telephone contact number for the helpline to be brilliant and very reassuring. Thank you!'

eg, boxes 5 and 6). The Kappa coefficient between raters was 0.74 (95% CI 0.66 to 0.82) indicating substantial agreement.¹⁰

Where patient records or local knowledge were used, the patients' electronic medical records were most commonly interrogated (72.5%, n=108), followed by contacting a healthcare professional involved in the patient's care—usually the discharging doctor or pharmacist (34.2%, n=51). Some enquiries required use of more than one resource to answer the question asked.

DISCUSSION

This study has shown that most patients and carers rate the UHS Medicines Helpline as excellent and that they follow the advice given by the team. The helpline service helps to reassure patients as they leave hospital, and resolves any medication-related problems that they may encounter when they reach home. Patients are able to start or stop taking their medicines, thereby optimising their care without delay. The helpline also acts to prevent GP visits or consultations with other healthcare professionals; access to these practitioners can sometimes be limited, and they may not have the relevant information resources.

Patients mainly call the helpline with concerns about safety or how to take medicines, which is similar to the results of previously published research.^{5,6} Of concern, is that over one third of calls arose because of an error or omission made by UHS staff during the discharge process. Again this is in line with error rates reported by other researchers.⁴ The majority of these were communication errors, mistakes on prescriptions or faults arising as part of the discharge process on wards.

Before they leave UHS, all patients or their caregivers should receive counselling about their medicines, which would be anticipated to reduce the likelihood of some of these problems occurring. In addition, mandatory medicines reconciliation checks immediately prior to discharge could presumably help to reduce the risk of these errors or omissions further. Adverse

Box 4 Recurring incidents identified

- ▶ Patients discharged with medicines missing, or with another patient's medicines or unlabelled ward stock mixed in with their own by mistake.
- ▶ Patients being uncertain whether medicines stopped on admission to hospital are to be resumed at home.
- ▶ Patients not understanding the duration of treatment as it is not always specified in discharge documentation (especially antibiotics, anticoagulants) or is unclear.
- ▶ Ward prepacks of medicines being supplied without dosing instructions.

Box 5 Examples of calls where access to patient records local knowledge was essential

- ▶ A patient rang confused about her discharge medication as the labels on the bottles didn't seem to match up with the instructions on her hospital discharge letter. Using the patient's electronic discharge records, the helpline team were able to reassure the patient, answering her questions, and ensuring that her medicines could be taken safely and effectively.
- ▶ A patient rang worried about the dose of warfarin he should be taking. The box was labelled 'as directed' and the patient couldn't remember what he had been told to do. The helpline pharmacists were able to access his electronic medical records, and advise the patient on the correct dose to take until he was reviewed by his GP.

incidents identified by the Medicines Helpline team are now fed into the UHS Patient Safety Group to help the Trust learn from its mistakes and improve the discharge process.

In a 2011 evaluation of the medicines helpline at the Chelsea and Westminster Hospital, Marvin *et al* suggested that not having access to patient prescription information could be problematic for services based in medicines information centres.⁴ At UHS, most prescription records are now held electronically and are easily accessible. This study has demonstrated that this access was essential for over half of the calls received by the helpline. In a further significant number of calls, access to such information enabled a more complete answer to be given, often clarifying medication histories or establishing the reasons for changes to drug therapy during a hospital admission. This therefore demonstrates the value of local knowledge in providing effective and timely advice to patients about their medicines. It supports the current model of a network of local helplines rather than a smaller number of more centralised services.

Limitations of this study include the lack of a validated questionnaire for capturing the patient outcome and satisfaction data, and that it was performed at a single university hospital site affecting the generalisability of the findings. Recruitment was performed by all members of the medicines information team and relied upon them remembering to invite the caller to participate, and their interpretation of the inclusion criteria.

Box 6 Examples of calls where access to patient records or local knowledge was desirable

- ▶ A patient phoned for advice on whether their newly-started lamotrigine could be causing nausea and vomiting. Access to the patient's records revealed that they had also started antibiotics that they had not been originally disclosed. The helpline pharmacist was able to advise the patient that although the lamotrigine could be a cause of their symptoms, the antibiotics may be implicated too.
- ▶ A patient's daughter called for advice about the order in which to administer her mother's newly prescribed eye drops and eye ointment. Since clinical practice can sometimes differ to guidance given in standard text speaking to the local ophthalmology team ensured our advice reflected that given at the patient's appointment.

This may have resulted in not all eligible callers being recruited, affecting the validity of the results.

Future research will aim to address these limitations as well as investigating more effective helpline promotion strategies. Further work will also look at proactively calling higher-risk patients after they have been discharged from hospital to resolve any medication-related concerns they may have.

CONCLUSIONS

The UHS Medicines Helpline helps to reassure patients and their caregivers as they move between hospital and their homes. They trust and follow the advice given, and have their medication-related problems resolved. The Helpline also acts as an important safety net for patients and the Trust in identifying

and correcting errors that have crept into the discharge process. Being based in the Trust where the patient has been cared for is an advantage for the successful running of a helpline, as swift access to patient records and other local knowledge is often required.

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Competing interests None declared.

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Key messages

What is already known on this subject

- ▶ Patient satisfaction with hospital-based medicines helplines in the UK is generally high.
- ▶ Medicines helplines have a positive impact upon patients' lives.

What this study adds

- ▶ Patients and their carers follow the advice given by hospital-based medicines helplines, they have their problems resolved and they feel reassured about their medicines and illness.
- ▶ Access to patients' hospital records and other local knowledge is important for the successful running of a hospital-based medicines helpline.