J Accid Emerg Med 1996;13:330–333

Review of a computer based telephone Helpline in an A&E department

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Abstract

***Objective*—An audit of use of the telephone Helpline in the accident and emergency (A&E) department was conducted to establish the type of call, time, by whom the calls were made, appropriateness of advice given, and whether callers attended or not as advised, and also to obtain feedback from callers as to the degree of satisfaction with the advice given.**

***Methods*—All calls over a four week period were included in the study. The information logged comprised name, age, telephone number, date and time of call, nature of query, advice given, and name of advisor. Callers whose telephone number had been noted were contacted for feedback.**

***Results*—There were 300 calls over the four week period, and 150 callers were available for feedback. Most calls were received between 12.00 and 20.00 hours. The majority of callers were parent or self, 52% of calls were for problems concerning adults, and 40% for children; no age was recorded in 8%. Nursing staff answered 90.7% of the calls. Queries were wide ranging but commonly involved open and closed wounds and head injuries, with 29.3% being advised to attend A&E, 32.3% to ring or see their GP, and 38.4% were reassured or given other advice; 4% of callers attended A&E despite being advised otherwise, 97% were judged to have received appropriate advice, and 91.3% of callers were satisfied with the advice given.**

***Conclusion*—The Helpline has proved of benefit to the public. It is necessary and important to have protocols for common problems and to document all details carefully. It is also necessary that nursing staff are trained in handling the telephone queries and using the protocols. The use of a PC based system has improved data collection and also allows immediate access to protocols.**

(*J Accid Emerg Med* 1996;13:330–333)

Key terms: accident and emergency department; Helpline; telephone advice; computerisation

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Accepted for publication 29 March 1996

Our accident and emergency (A&E) department, which is located in a hospital in a south coast holiday resort, receives, in addition to calls from the local population, many requests from holiday makers, foreign students, and other visitors for medical advice. Before the establishment of the Helpline, these requests were usually responded to by any member of staff who answered the call. There were no protocols and policies available to help in handling the queries.

The Helpline was set up in the A&E department in 1994 with funding from the East Sussex Area Health Authority. The objectives were to provide a useful service to the community and to help appropriately trained staff handle the calls and give correct advice, with the aim of reducing the number of inappropriate attenders in the department.[1] It was decided to actively advertise the Helpline through the local press, leaflets in the A&E department, and through poster displays, for example in general practitioner (GP) surgeries and holiday camps.

A steering group which included representatives of local GPs, A&E doctors, and nursing staff agreed on protocols for common problems. The Helpline had a direct telephone number which the public could contact and to which A&E reception or switchboard could redirect calls. Documentation was initially on paper, and in February 1995 a PC based system was introduced. Protocols, including prompts for questions for common problems, could be displayed on an information screen, and problems thus dealt with were termed "listed problems". The rest were unlisted problems, for which no protocols were provided due to the infrequency and variety of such queries. Screens with details of local GPs, and telephone numbers of local agency and support organisations were included. A call log system allows details of Helpline calls, both listed and unlisted, to be recorded with an ID number which could be used to trace the record. The system is registered as required by the Data Protection Act 1984. Nursing staff with a minimum of six months experience in the department were trained in the use of the PC, and given guidance on answering telephone calls.

In August/September 1995 an audit of use of the Helpline was conducted, looking in detail at the calls received and the advice given. The objective was to establish the type of call, time, by whom the call was made, the appropriateness of the advice given, whether patients attend or not as advised, and also to obtain feedback from callers about the degree of satisfaction with the advice given.

Methods

All callers to Helpline over a four week period from mid-August to mid-September 1995 were included in the study. The information logged comprised name, age, telephone

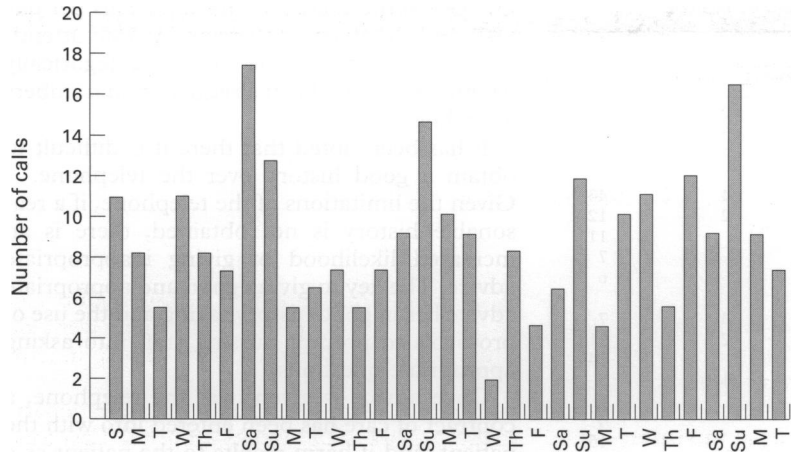

Figure 1 Daily distribution of calls over a four week period.

number, date and time of call, nature of query, advice given, and name of adviser. Callers where the telephone number had been noted were contacted for feedback, and up to four attempts were made to contact those initially unavailable before giving up.

There were 300 callers in the four week period. Of these 300 it proved possible to contact 150. Others were not contacted for various reasons, such as no telephone, no number (or incorrect number) recorded, or no reply when rung back.

Results

TIMING

Figures 1 and 2 illustrate the daily distribution and timing of calls received. The number of calls varied between 2 - 19 per day. The largest number of calls was received between 12 noon and 20:00 hours. No particular pattern was noted in the daily distribution of calls over the four-week period, although there does appear to be an increase in calls at weekends.

DETAILS OF CALLERS

Of the 150 callers contacted, 38.7% were parents, 36% called on their own behalf, 9.3% called on behalf of spouse/partner, 8% were relatives of the patient, 4.7% were friends, and 3.3% were "other", for example, carer, minder, etc. Of the 300 calls, 154 (51.3%) were for problems concerning adults, 120 (40%) were for children, and in 26 cases (8%) no age was recorded.

The Helpline was contacted directly by 30.7% of callers, 11.3% of calls came through the switchboard, while 58% of callers contacted A&E reception, who transferred them to the Helpline number. Of callers contacted, 42% had heard about Helpline through the local press, posters in the hospital, from their GP surgery, or by using Helpline on previous occasions.

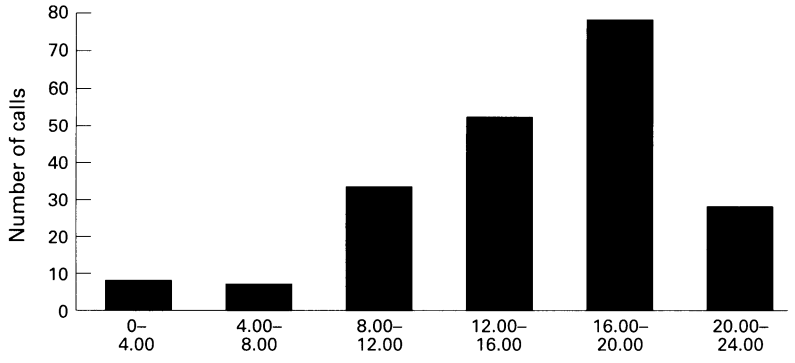

Figure 2 Timing of calls to the Helpline over a four week period.

BY WHOM ADVISED

It was found that 272 (90.7%) of the calls were answered by nursing staff, 16 (5.3%) by A&E doctors, and in 12 cases (4%) no record of the adviser had been documented.

COMPLAINTS/PROBLEMS

There was a wide variety of problems and queries. Among the most common were closed and open wounds, stings, orthopaedic problems, and head injuries (see table 1).

Of the 88 callers advised to attend A&E, 65 (73.9%) attended and 23 (28.3%) did not. Of the latter, only three were available for feedback, and these three claimed to have ignored the advice given. Two had complained of closed wounds which had got better, so they did not attend, while one had suffered a scalp wound but was unwilling to attend when told that there was at the time a one hour wait. Twelve callers attended A&E despite being advised that attendance was not thought necessary. Table 2 indicates compliance with advice. Among the callers advised to attend A&E, the commonest problems were closed and open wounds, ENT problems, and problems with plaster of paris.

ADVICE GIVEN

Eighty eight (29.3%) were advised to attend A&E; 35 (11.7%) were advised to ring their GP; 60 (20%) were advised to see their GP in surgery; one (0.3%) was advised to see a practice nurse; one (0.3%) was advised to see a community psychiatric nurse; and 115 (38.4%) received other advice, reassurance, etc.

FEEDBACK

Of the 150 callers who were contacted for their feedback, 137 (91.3%) said they were satisfied with the advice, leaving 13 (8.7%) who were not. Of the latter, two had dental problems, and one was a drug query who had been given insufficient advice. The rest had been given appropriate advice as per protocol.

ASSESSMENT OF ADVICE

Of those given advice, 97% of callers received appropriate advice as per protocol, while in nine (3%) it was considered that the advice given was either insufficient (n = 3) or inappropriate (n = 6). The six who were felt to have received inappropriate advice consisted of one with a burn to the thigh, one with a foreign body in the nose (a child), and three with animal bites, all of whom were advised to see their GP, though the protocols indicate that they should have been advised to attend A&E. A caller with a dental problem, who was also advised to see his GP, should have been given an emergency dentist's number. The three

Table 1 Analysis of calls received by Helpline

Complaint	Adults	Children	Age not recorded	Total
Head injuries	6	12	2	20
Orthopaedic	22	10	3	35
Wounds, open/closed	18	20	2	40
Stings/bites	18	21	4	43
Dental	5	5	2	12
Ear, nose, throat	6	5		11
Eyes	5	2		7
Swallowed foreign body		6		6
Chest pain	4		3	7
Respiratory tract	6	3	2	11
Gastrointestinal	6	8		14
Urology	4		1	5
Gynaecology	6			6
Neurology	4			4
Overdoses	4	11		15
Psychiatric problems	3		1	4
Drug advice	8	5	1	14
Miscellaneous	22	12	5	39
Not recorded	7			7
Total	74	74	148	300

Table 2 Analysis of callers who attended or who were advised to attend the A & E department

Problem	Advised to attend: attended	Advised to attend: did not attend	Attended despite advice not to
Head injury	5	2	
Wounds, open/closed	28	6	2
Stings/bites	7	2	4
Orthopaedic	4		
Dental	2	2	2
Ear, nose, throat	5	2	
Eyes	1	1	
Cardiac	2	1	
Respiratory	2	1	
Urology			1
Overdose	3	4	
Miscellaneous	6	2	3
Total	65	23	12

who were felt to have been given insufficient advice are listed in the paragraph above.

Discussion

There is an increasing demand from the public for medical advice over the telephone in A&E departments.[2 3] GPs have been accustomed to giving advice over the telephone,[4] although GPs in most instances, unlike A&E departments, have access to or knowledge of the patient's past medical history, which helps when giving medical advice. Many A&E departments have in the past also given telephone advice on an informal basis.

The public see the A&E department as an ideal source of medical advice for emergency (and less urgent) situations. Pressure is put on staff handling these calls when they are also busy treating the patients in the department.[5]

It has been argued that advice should not be given without examining the patient.[6] However, requesting all the callers to attend the department not only increases the workload of the department, but is also inappropriate for those with queries not requiring to be seen by an A&E doctor.

Approximately 30% of callers were advised to attend A&E, and 30% to seek advice from a GP. Given the average number of calls per day (10) and the normal variation in A&E attendances, it is not possible to state categorically whether there has been a reduction in numbers attending.

It has been noted that there it is difficult to obtain a good history over the telephone.[7 8] Given the limitations of the telephone, if a reasonable history is not obtained, there is an increased likelihood of giving inappropriate advice. The key to giving good and appropriate advice lies in good history taking and the use of protocols to prompt nursing staff into asking appropriate questions.

Once advice is given over the telephone, a contract of care has been entered into with the patient, and if harm results to the patient as a result of following the advice, the adviser in the department is technically open to litigation, even though such incidents are rare.[9]

BAEM '92 has set up guidelines concerning advice over the telephone. Based on this, each department should formalise protocols for nurse training and common problems.[9-11] It is also necessary to document the name, age, time of call, telephone number, patient's query, advice given, and name of advisor in order to have a full record in case of litigation.

Concern has been expressed over the percentage of callers who failed to follow the advice given. In the main it was decided that all calls should not be followed up, and that it should be left to the discretion of the caller as to whether or not they choose to follow the advice.

Feedback from nursing staff indicates that they feel that the Helpline is a good service to the public and that streamlining the calls to the direct telephone and the existence of protocols for listed problems helps greatly in handling queries and giving appropriate advice. Staff were also of the opinion that the Helpline does contribute towards reducing the number of A&E attenders among the callers. The view was also expressed that the availability of a Helpline constitutes the provision of an additional service but with no increase in staff numbers. Answering the calls can also be stressful when it interrupts the work of attending to patients in the department. A solution may be to look into the question of funding for staff requirements within the A&E department during busy periods.

CONCLUSION

We conclude that the Helpline has been useful to the public, and the majority of users were satisfied with the advice given. It is necessary and important to have protocols for common problems, and to document all details carefully to maintain an accurate record. It is also necessary that appropriately qualified nursing staff are trained in the use of the protocols and in handling the telephone queries.

Although the availability of a Helpline may reduce A&E attenders it probably generates additional enquiries. The use of a PC based system has advantages over the original paper based system in improved data collection, and

also in that it allows immediate access to protocols during the course of telephone enquiries. Protocols are currently being updated and added to following the review. It appears that there is a demand for telephone advice and it seems reasonable to suggest that the service will, over a period, reduce unnecessary visits to GPs or A&E departments.

We would like to thank Mr Nic Stenhouse, Orthopaedic Surgeon's Assistant, for his work in designing and programming the software for the computer based telephone Helpline. Anyone who would like further details of the software can contact Mr Stenhouse at the Conquest Hospital, St Leonards-on-Sea.

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