

# 'Quod scripsi, scripsi.' The quality of the report of telephone consultations at Dutch out-of-hours centres

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## ABSTRACT

**Objective** To assess the quality of the content of reports of telephone consultations at out-of-hours centres and to investigate to what extent the reports reflect the actual telephone consultation.

**Design and setting** Cross-sectional qualitative study; 17 out-of-hours centres in The Netherlands.

**Method** To assess the quality of the content of reports, a focus group developed the Reason for calling, Information gathered, Care advice given, Evaluation of the care advice with the patient (RICE) report rating instrument. Telephone Incognito Standardised Patients presented seven different clinical problems three times to 17 out-of-hours centres. All calls were recorded and transcribed. The out-of-hours centres being called were asked for a copy of the report of the call. The authors assessed the quality of the content of the reports and compared this with the transcripts.

**Results** The out-of-hours centres returned a report for 78% of the 357 calls. For the remaining 22% of the calls, no report was written. Reports contained almost always information about the medical reason for calling but little information about details of the clinical history. Patients' expectation, personal situation or perception of the care advice was seldom documented. In all but one out-of-hours centre, answers to obligatory questions were reported by triagists, although they had not been asked, varying between 1% and 54% of all questions entered. Triagists entered a subjective evaluation of a patients' condition in 12% of the reports.

**Conclusion** Reports of telephone consultations of out-of-hours centres contained little information on patients' clinical and personal condition. This could potentially endanger patients' continuity of care and might pose legal consequences for the triagist.

advising self care.<sup>1 2</sup> These calls might be audio-recorded, but if the patient calls back, the report informs the triagist quickly about the latest telephone contact. Second, the report can be used for medicolegal purposes if a patient has made a complaint about the care provided.<sup>3 4</sup> Third, reports can be used for epidemiological research, but the reliability of the symptom or diagnostic orientated codes is limited, as little information is available on the accuracy of the coding process.<sup>5 6</sup>

In spite of the importance of medical records, no research on reports of telephone consultations with triagists at out-of-hours (OOH) centres could be identified. The first objective of our study was to investigate the quality of the content of information in these reports.

Research with simulated patients visiting a general practitioner (GP) revealed a low correlation between what had been recorded and what had been asked.<sup>7</sup> Accordingly, the second objective of our study was to investigate to what extent the reports at out-of-hours centres reflected the content of the telephone consultations.

## METHODS

### Cases, protocols and rating instrument

A focus group was asked to develop an instrument to assess the quality of clinical reports of telephone consultations at an OOH centre. The group consisted of individuals representing the four stakeholders involved in telephone calls to an OOH centre: the patient, the call handler, the general practitioner and the management team. Each party was represented by two members with experience in working at or dealing with an OOH centre. They developed the Reason for calling, Information gathered, Care advice given, Evaluation of the care advice with the patient (RICE) report instrument. This instrument contains patient- and case-specific items to be reported (see appendix A describing the full content of the RICE-report instrument).

The research team developed protocols with obligatory questions to be asked for clinical symptoms that are known to be presented frequently on the telephone to OOH centres: a 5-year-old child with fever, an adult with nose bleeding, an adult with fever and a 5-year-old child with vomiting.<sup>8-10</sup> A team of GPs validated the protocols and reached consensus on the obligatory questions to be asked for each of these symptoms. The case-specific part of the RICE-report instrument contains the suggested obligatory questions and the care advice required. The patient specific part contains the following items: clinical problem,

Gospel according St John chapter 19 vs 22: 'What I have written, I have written.'

## INTRODUCTION

After a telephone consultation at an out-of-hours centre, the call handler writes a medical report to record what has been discussed with the caller. The call handler is the person who actually handles the request for medical advice and is called the triagist.

The report of a telephone consultation serves different purposes. First, it is important to secure continuity of care. The report is the only documented and therefore rapidly accessible source of information about the content of a call. Studies show that between 35 and 50% of all clinical problems presented by telephone are dealt with by

expectation (wants advice or to be seen by doctor), personal situation (being worried, anxious) and patients' evaluation of the care advice (accepting or rejecting the advice).

### Calls and reports

In October 2004, there were 105 OOH centres operative in The Netherlands. All OOH centres were asked for permission to be selected for the research study. Of the 98 centres that gave permission, 17 were selected to be called. We performed a balanced selection where, for each of the 12 provinces of The Netherlands, the size of the population in that province determined the number of OOH centres to be selected. The centres per province were then selected at random.

The selected symptoms were presented in seven different scenarios by a team of specially trained Telephone Incognito Standardised Patients (TISPs). Each case was presented three times to each selected OOH centre; therefore, 21 calls were made to each OOH centre. All calls were recorded and transcribed for further assessment.

After the study, the 17 OOH centres being called were asked to send a copy of the reports of these telephone consultations.

### Variables and statistical analysis

The quality of the reports was assessed with the RICE-report instrument by two GPs independently. They could enter the score: 'Yes (reported)' or 'No (not reported).'

For each OOH centre, the following variables were calculated as indicators of quality:

- ▶ percentage of reports returned;
- ▶ percentage of reported patients' clinical problem;
- ▶ percentage of reported patients' expectation;
- ▶ percentage of reported patients' personal situation ;
- ▶ percentage of reported obligatory questions asked;
- ▶ percentage of reported care advice given;
- ▶ percentage of reported patients' evaluation of the advice.

To investigate to what extent the report reflected the actual telephone consultation, a comparison was made between the clinical content of the reports and the transcripts. We calculated:

- ▶ percentage of all obligatory questions absent in the report but present in the transcript (not reported but asked);
- ▶ percentage of all obligatory questions present in the report but absent in the transcript (reported but unasked).

For each of these variables, the average percentage of the two raters was used for further analysis per report for all OOH centres.

Descriptive statistics and results of the analysis of variance were obtained by using the statistical software package SPSS version 15 (SPSS, Chicago, Illinois).

### RESULTS

The TISPs made 357 calls, and 280 copies of the reports were returned. The percentage of returned reports of 21 calls made to each OOH centre varied from 23% to 100% per OOH centre (table 1). At 16 OOH centres, the triagists had not documented all calls.

#### The mean percentage score for the reported four different aspects of the RICE-report instrument are:

- ▶ Reason for calling:
  - clinical problem: 99%, varying from 83% to 100%;
  - patients' expectation: 52%, range 17% to 80%;
  - patients' personal situation: 15%, this varied from zero to 49%;
- ▶ Information gathered: obligatory clinical questions compared with the agreed standard was 20%, varying from 12% to 34%;
- ▶ Care advice given: 98%, range 83% to 100%;
- ▶ Evaluation of the advice by the patient: 11%, varying from zero to 63%.

Comparison of the report with the transcript revealed a mean percentage of 19% for obligatory questions asked but not reported, which varied from 8% to 29%. The mean percentage of

**Table 1** Number of reports returned for 21 calls and mean percentage scores for the different variables of the RICE-report instrument per out-of-hours centre

Out-of-hours centre	No of reports returned	Percentage of reports returned	R		I		C	E
			Clinical problem	Expectation	Personal situation	Obligatory questions reported/standard	Care advice	Patients' reaction
1	17	80	100	76	6	14	100	0
2	18	85	100	56	13	16	100	5
3	10	47	100	40	40	20	100	10
4	18	85	100	39	22	23	100	6
5	19	90	100	43	30	34	100	0
6	19	90	100	42	11	12	90	0
7	18	85	100	44	8	24	100	11
8	17	80	100	47	49	28	100	15
9	16	76	100	75	13	19	100	63
10	20	95	98	55	8	19	100	0
11	19	90	100	63	8	17	100	11
12	17	80	100	47	6	19	100	0
13	5	23	83	17	0	22	83	0
14	18	85	100	56	0	15	100	0
15	18	85	100	56	33	21	100	0
16	10	47	100	80	0	14	100	0
17	21	100	100	47	14	21	100	57
Total	280	78	99	52	15	20	98	11

RICE, Reason for calling (patient-specific), Information gathered (case-specific), Care advice (the outcome of the triage; case-specific), Evaluation (patients' reaction to the advice).

Table 2 Number of reports returned for 21 calls and percentage obligatory questions asked compared with questions reported per out-of-hours centre

Out-of-hours centre	No of reports returned	Obligatory questions not reported/indeed asked	Obligatory questions reported/but not asked
1	17	22	24
2	18	19	17
3	10	19	13
4	18	19	8
5	19	11	54
6	19	25	8
7	18	22	4
8	17	12	4
9	16	29	6
10	20	26	6
11	19	26	8
12	17	19	2
13	5	17	4
14	18	8	6
15	18	18	4
16	10	17	0
17	21	16	1
Total	280	19	10

obligatory questions reported but not asked was 10%, ranging from 0 to 54% (table 2).

## DISCUSSION

### Summary of findings

Triagists made a report for 78% of all calls. For the remaining 22% of the calls, no report was written. Reports contained information on the medical reason for calling in most cases but little information on previous medical history. Patients' expectation or personal situation were seldom documented. Patients' evaluation of the care advice was mentioned regularly at two out-of-hours centres; at the others not at all. In all but two out-of-hours centres, triagists had entered more obligatory questions than they asked.

### Strengths and limitations of this study

We took a sample of 17 out of the 98 OOH centres which had given permission to be called. Even though there are minor organisational differences between Dutch OOH centres, basically they work in the same way.<sup>11</sup> The relatively small variation over the OOH centres of the report quality is also supportive for the nationwide representativeness of the current findings.

We used TISPs, and a transcript was made of all calls which are costly and time-consuming activities. The content of a report can also be assessed with the RICE-report instrument and compared with the content of the call by listening to (recorded) calls with genuine patients.

In The Netherlands, one of the GPs on call at the OOH centre is responsible for all decisions made by the triagists. In cases where the triagist has decided to give self care advice, the approval of this decision by the GP in charge will be based mainly on the report. If needed, the GP can ask the triagist for additional information. Therefore, we were surprised that at only one OOH centre had a report of all 21 calls been made, and at another OOH centre a report had been written for only 23% of all calls. It is known that some GPs do not document all face to face consultations,<sup>7</sup> but we do not know why some triagists

did not document all telephone consultations. We also do not know whether they realise that this omission might have clinical consequences for the patient and legal consequences for the triagist, and also for the organisation.

The number of obligatory questions reported compared with the agreed standard was very low at all OOH centres, indicating that there was minimal documented information on the clinical condition of the patient. Comparison of the transcripts with the reports revealed two explanations for this low score. First, those questions had not been asked. Second, when they had been asked and had been answered with a 'No,' they were often not documented. This means that mainly positive findings were reported, but negative findings were not reported as frequently. We do not know whether GPs on call discussed calls with the triagists before they validated the triagists' decisions without entering this additional information into the report.

The assessors of the reports noted that triagist often wrote; 'No alarming signals' or 'No other complaints.' They extended their investigation and retrieved these remarks in 12% of all reports. However, by comparing the transcripts with the reports, they could not identify which questions were asked to support those remarks. Therefore, we conclude that for these calls, the triagist had reported a subjective evaluation of patients' condition.

We were surprised with the finding that unasked obligatory questions were sometimes entered into the reports. This might endanger the health of the patient, as it might mislead the GP evaluating the quality of care provided over the telephone, and it might also have serious legal consequences. Discussion of these findings with the managers of the four OOH centres where this had happened frequently revealed that they used a computerised system which generated the reports automatically. They all decided to take immediate action to solve this problem.

Reporting of telephone consultations is apparently far from optimal, and improvement is needed. Perhaps electronic communication offers future solutions, such as on-line communication with the patient. However, it is also a time-consuming activity, and not every patient is always able to go on line. Another alternative might be the use of a computerised supporting system during the telephone triage, whereby the triagist can click on predetermined questions asked including the answer given. This method also has the advantage of meeting standards for the format of documentation as required for electronic health recording systems.

## CONCLUSION

The assessments of the quality of the content of the reports revealed that the reports contained almost always information on the clinical problem and the care advice given. A report of telephone consultations was not always made at all OOH centres. The reports contained little patient and case-specific information. Accordingly, these reports cannot contribute much to secure continuity of the care provided.

Comparison of the reports with the transcripts revealed that some triagists had entered obligatory questions which had not been asked, or they had made a subjective evaluation of the patients' condition. This might endanger the health of the patient and pose a medicolegal risk to the triagist.

## FURTHER RESEARCH

All reports were hand-typed by the triagists, which will have been a time-consuming activity. Research is needed to

investigate instruments to support triagists in generating reports automatically and meeting medical and legal standards.

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## APPENDIX A

**RICE (Reason for calling (patient specific), Information gathered (case specific), Care advice (the outcome of the triage; case specific), Evaluation (patients' reaction to the advice))-report instrument**

To assess the quality of a report of a telephone consultation with an out of hours centre.

Clinical problem:

Score; yes=1: present; no=0: not present

### Report

#### Reason for calling (patient-specific)

1. Clinical problem
2. Patients' expectation
3. Patients' personal situation (anxious, worried)

#### Obligatory questions asked (case-specific)

4.

#### Care advice (outcome) (case-specific)

5. Self care
6. Consultation at the out-of-hours centre
7. To visit general practitioner in office hours
8. Call back
9. Other

#### Evaluation (patient-specific)

10. Patients' reaction and evaluation