Introducing incident reporting in primary care: a translation from safety science into medical practice

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In this article, we examine how incident reporting procedures become part of the way primary health care professionals deal with safety problems. Between 2006 and 2010, we studied documents, observed incident reporting committee meetings and conducted formal and informal interviews in five Dutch primary health care centres and one general practitioner’s out-of-hours service to describe the introduction of incident reporting procedures. In this article, we distinguish two approaches towards patient safety, the logic of risk management and the logic of medical practice. In the logic of risk management, safety is seen in terms of the prevention of recurrence of specific well-defined incidents. In the logic of medical practice, safety involves recognising uncertainties and strengthening implicit initiatives that underpin patient safety. Care providers alternated between the two logics and aligned them. Most reported incidents in primary care concern non-clinical incidents with no or limited impact on the patient. We observed that both physicians and medical assistants changed the significance of a particular incident by frequent reporting. By reporting apparently insignificant risks, those providing care were able to deal with these risks more explicitly and actively. The alignment of the two logics was different for clinical, more harmful incidents. Care providers rarely reported serious clinical incidents and we could find little evidence that they actively engaged with recommendations following the investigation of serious incidents. Both logics mutually shaped and informed each other. Incident reporting procedures made implicit initiatives explicit and the two logics ensure that safety involved multiple and different actions.

Keywords: risk; safety; risk management; risk perception; primary care

Introduction

There is no consensus in the literature on patient safety and how it can be managed, nor is a shared set of beliefs of what constitutes an error or a patient safety incident (Waring et al. 2007, Currie et al. 2009), though it seems self-evident that professionals should ensure patient safety and should use available tools. One such tool is incident reporting and the associated incident review system (Lawton and Parker 2002, Sandars and Esmail 2003, Benn et al. 2009, O’Beirne et al. 2010). However, in other settings, researchers have questioned the extent to which incident reporting procedures contributes to safety in the work place (Bosk 2006, Mesman 2011). For instance, Mesman (2011) has argued that commentators who suggest that health care cannot be safe unless certain tools such as an
incident reporting procedures are in place do not acknowledge the unplanned sets of
action and implicit initiatives that underpin patient safety in day-to-day medical work.

In this article, we draw on research on patient safety in primary care in the Netherlands
(Zwart et al. 2011a, 2011b). We examine a major paradox in our study of the ways
primary health care providers defined and dealt with patient safety problems. In this
research, the SPIEGEL project, most reported incidents (>80%) concerned relatively
minor incidents that had little implication for patient safety – organisational problems,
such as incorrect administration of appointments, lost or incorrectly executed diagnostic
tests, doctors forgetting that they were on call or running late for a shift. We found that
serious incidents in the medical domain, such as diagnostic errors, were rarely reported
(Zwart et al. 2011a).

In the first section of this article, we outline the two logics for patient safety that form
the basis for our analysis. In the Methods section, we explain our methods of data
collection and analysis. In the Findings section, we first describe how and why the care
providers involved in this study considered certain incidents worth reporting. We then
present a detailed analysis of three serious incidents to describe in detail how patient
safety depends both upon risk management technologies and upon unarticulated and often
implicit initiatives. Finally, we consider the findings and conclusions.

Two logics of safety
In this section, we operationalise two logics of patient safety on the basis of the work of
Callon et al. (2009), Heyman (2009), Hilgartner (1992) and Mol (2008), that is, the logic
of risk management and the logic of medical practice. The difference between the two
logics is a difference in our understanding of how knowledge and technology figure in
practice. In the logic of risk management, safety problems are defined as risks. A risk can
be defined as a situation or an event that has become a selected focus of analysis for
calculating the likelihood of an adverse outcome (Heyman et al. 2009). Within this logic,
learning from past error is crucial and those using this logic have developed management
tools which involve reconstructing an adverse incident by describing the linear sequence
of events that lead to the unintended harm enabling the identification root causes and the
actions needed to prevent them. The management tools are designed to ‘displace risk’ by
turning the threat of harmful outcome into something to be measured and managed
(Hilgartner 1992). The analysis of an incident identifies a potential threat and its cause
and shows the sort of action that can be taken to minimise the possibility of similar
incidents and threats. The incident reconstruction aims to unpick the system of care in
order to examine the functionality or non-functionality of its parts. Advocates of this
system claim that errors can be prevented when they are enclosed in networks of control
(Hilgartner 1992). Yet, Berg (1997) has noted that such technology may fail to capture the
role of care providers, particularly their intuitive and skilled ‘knowing how’ (Berg 1997).
It is possible that formal tools work best in specific areas of practice where tacit knowl-
edge has been turned into explicit knowledge.

In the alternative approach to safety, the medical practice logic, safety problems are not
defined as measureable risks but as immeasurable uncertainties (Mol 2008, Callon et al.
2009). Uncertainty refers to a situation or an event where those involved know that they do
not know about the possible harm and/or the series of events that might lead to harm
(Callon et al. 2009). Uncertainties cannot be removed, but need to be recognised and dealt
with. The core of this approach is ‘to emplace risk’ and deal with it through clinical skills
and professional judgement. This approach to the management of safety is embedded in the
implicit knowledge rooted in clinical experience that is applied in everyday clinical encounters (Bosk 1979, May et al. 2006, Waring and Bishop 2010). In the logic of medical practice, safety is not a matter of providing a better understanding of the root causes of unintended harm, but of crafting ways of working with possible unintended harm. It is about the practicalities of dealing with unintended harm (Mesman 2011).

With the development of evidence-based medicine, the logic of medical practice seems to be outdated and limited in terms of patient safety (French 2010). Advocates of evidence-based medicine argue that safety, which used to be dependent upon implicit knowledge and routines, can now be managed more effectively with formal tools (Iedema 2009, French 2010). Since World War II, medical knowledge has been increasingly formalised and codified (Dopson et al. 2002), for example, through research protocols and practice guidelines in medical practice. Alongside evidence-based medicine, the development of formal management in health care has emerged. Managerial efforts are now widely believed to be required to improve the quality of care (Berg 1997, Harrison and McDonald 2008, Mol 2008). Harrison and McDonald (2008) have characterised this transformation as the scientific bureaucratisation of medicine. Yet, as Mol (2008) pointed out, the logic of medical practice remains as relevant as the logic of risk management. The effectiveness of the risk management technology to enhance safety cannot be taken for granted, but must be assessed in actual practice, and in this article, we explore how risk management and clinical practice interact.

Methods

Setting for the study and design

The Netherlands is recognised as having one of the best developed primary health care systems in the world (Schoen et al. 2009). In the Netherlands, most general practitioners (GPs) work in small practices with between one and four doctors that offer a wide range of services: surgery visits, telephone consults and home visits. They work with medical assistants and practice nurses who execute both administrative or organisational tasks and preventive medical care. Dutch GPs act as gatekeepers for specialist care. Each citizen in the Netherlands is obliged by law to register with a GP. Ninety per cent of all new health problems are presented to GPs (Cardol et al. 2004). The Dutch College of General Practitioners has developed almost 100 national guidelines for their services. In addition, Dutch GPs have advanced electronic health information capacity, which include facilities for record keeping, prescribing and access to test results. The national guidelines are integrated in GPs’ electronic patient record systems. For urgent care, all practices have a dedicated out-of-hours phone numbers (Grol et al. 2006). In contrast to the small scale of general practices, after-hour services for GP care are organised in regional cooperatives with 50–250 GPs serving 100,000–500,000 patients. These cooperatives have a telephone triage system with trained assistants.

This study was conducted in the primary care setting because we anticipated that incident reporting would function differently in the small scale primary care setting with a main focus on diagnostic and preventive care compared to the large scale setting, such as hospitals, with their general focus on therapeutic interventions (Gandhi and Lee 2010).

The study on which this article draws was designed as an ‘at-home ethnography’, using the researcher role and job in an organisation as an opportunity for accessing research data (Alvesson 2009). Being close to and part of the research setting is linked with intimate knowledge of the situation, which is essential to develop an understanding
‘from within’. Yet, familiarity and ordinariness can also pose the problem of myopia (Ybema and Kamsteeg 2009). The key ambition of ‘at-home ethnography’ is to leave everyday life and create knowledge through interpreting the acts, words and materials used by oneself and one’s fellow organisational members from an objective distance (Alvesson 2009). The other author (de Bont) was an outsider to both the SPIEGEL project and General Practice, which allowed her to question favoured interpretations, writing memos assisted in challenging self-evident forms of understanding.

Zwart took on the dual role of researcher/physician to conduct ‘at-home ethnography’ (Alvesson 2009). She participated as principal researcher in the research team of the SPIEGEL study that designed and supported implementation of the incident reporting procedures in five GP health care centres and one GPs’ out-of-hours service. Zwart attended to the information and education meetings in the participating organisations and also trained the incident reporting committees in conducting incident analysis. In addition, Zwart had access to two research sites, the out-of-hours service and one of the five GP health care centres, because she worked there as a GP. In the 2-year study period, she conducted seven 8-hour shifts a year in the out-of-hour services and worked 1 day a week as a GP in the health care centre.

**Methodology**

The aim of this article is to describe and understand how an incident reporting procedure becomes part of the way primary health care professionals deal with safety problems. At the start of the study, the GPs’ out-of-hours service had already been contributing to a regional, centralised incident reporting system for 2 years, but the care providers who participated in our study reported few incidents. In contrast to the out-of-hours service, the health care centres had no formal incident reporting procedure before one was put in place by the SPIEGEL project. A pre-implementation survey of 115 caregivers in the health care centres investigated ‘care as usual’ practices following incidents. This survey found that adverse events were handled on a case-by-case basis. Of the 75 care givers that had been involved in an incident in the previous year, 93% first consulted a trusted colleague before discussing the incident directly with the patient involved. A few incidents were discussed with other providers or managers but were rarely subjected to formal and structured analysis designed to identify how they had occurred. (Zwart et al. 2009).

During the course of our research, we collected a range of documents and undertook participant observations, interviews and group interviews. In the Netherlands, ethical approval is not required for research involving only care providers. We collected several types of documents, such as workbooks, incident reports, root cause analysis reports and email correspondence. The focus of the data collection was how health care providers defined incidents and how they used incident reporting. We used a broad definition of an incident to guide data collection and analyses. An incident was defined as any unintended or unexpected event that could have led or did lead to harm for one or more patients receiving care (Zwart et al. 2011a).

Zwart held many informal discussions with participants and her presence as a GP on the shop floor offered opportunities for the respondents to informally share their experience and thoughts about whether to report an incident. These informal conversations were collected as ethnographic field notes. Everyone quoted was asked for explicit consent to include their words in the study.

A third independent, but well informed, GP-researcher conducted 28 formal interviews with individual caregivers. We decided to use an independent researcher to offer the
respondents the opportunity to share their experiences to an outsider who was not involved in the SPIEGEL project. The questions covered the feasibility of the incident reporting procedures, its relevance to improving patient safety and the caregivers’ reasons for following a procedure or not. For the selection of care providers for individual interviews at their health care centre, we used purposeful sampling in order to recruit caregivers from various disciplines and with different attitudes to incident reporting procedures. At the out-of-hours service, most interviewees were randomly sampled, as their attitudes to incident reporting were mostly unknown. In addition, the independent GP researcher conducted four semi-structured group interviews with the incident reporting committee members. Also, at least two meetings of each of the six incident reporting committees were observed by a member of the SPIEGEL team. Notes were made on a structured form that covered the major topics of incident reporting procedures.

We analysed the collected qualitative data using concepts defined in the introduction and operationalised these concepts systematically (see Table 1). Analysing the data according to a theoretical framework allowed us to interpret the data from a given distance and to shift perspective from the role of project leader and physician to the role of researcher.

Both logics of risk managing and medical practice were operationalised as we discussed above in our review of the literature. We defined the logic of risk managing in terms of specific definition of safety as risk, the intervention aim as preventing recurrence of specific well-defined risks and intervention through formal tools to control risks. We characterised the logic of medical practice in terms of the definition of safety as uncertainties, interventions which recognise that uncertainties are part of primary care and tools that develop and strengthen implicit knowledge and initiatives that underpin patient safety. In coding the interviews, we redefined the concepts in words that our respondents could have used, such as ‘preventing errors’, ‘reporting mishaps’ or ‘dealing with the unknown’. The results section quotes the words professionals actually used in the interviews. The professionals are cited under pseudonyms.

Findings

**Bias in the reporting system: reporting minor incidents**

In this section, we describe the experiences of respondents with incident reporting procedures. We describe how the respondents understood safety problems and how their understanding changed with the introduction of incident reporting. Primary care professionals have many questions about what make incidents worth reporting. Doctor Leenen, a senior GP, described her initial experience of incident reporting procedures:

> The first yield of the reporting system was kind of disappointing; it had all kinds of minor process errors and all that.

Both GPs and medical assistants indicated that only a selection of the incidents was reported: incidents about organisational issues. Furthermore, most reported incidents
related to the failure of medical assistants to comply with approved procedures. Medical assistants argued that few GPs confessed to making wrong medical decisions. Miss Maris, head of medical assistants at one of the participating health care centres, noted that,

The incidents reported in our practice taught me a lot about our work processes, that’s true; but it is a bit frustrating that most reports are about us [medical assistants] or our work and the General Practitioners never report something that they did wrong themselves, for example, in a medical decision, or something.

Not only did care providers seem to be disappointed with the impact of the new system, they also felt that the logic of risk management seemed to conflict with the logic of medical practice. Care providers felt that there was a conflict between the demand that they should report ‘everything that should not have happened’ and their daily experience at work (Dixon-Woods et al. 2009). GPs felt that risk was not something separate to be avoided, but an intrinsic part of their clinical work. As Doctor Janssen, a senior GP, noted adverse outcomes could not be prevented but were an intrinsic part of clinical practice:

Risk management suggests that [with IRP] things will never go wrong again. We [General Practitioners] could never achieve that, it makes this risk management frustrating.

GPs saw diagnostic errors by relatively common occurrence (Gandhi and Lee 2010), yet said such incidents were seldom reported. GPs told us they did not report diagnostic errors as these are perceived as an inextricable part of the uncertainty surrounding the health problems they deal with. It is only in hindsight that a diagnosis can be shown to be wrong. A GP explained to us why she did not report a missed diagnosis:

I didn’t report that I missed a diagnosis of pulmonary embolism in one of my patients. It was a personal error of judgement and I really don’t think anybody else can learn from it. So why bother analysing it? I know the answer already. Of course I discussed the incident with my colleagues, but reporting it would not have added anything.

During the implementation project, the GPs told us about some serious incidents that they (initially) did not report (see also the next section). Doctor van Meer, GP, explained to us why he felt reporting was difficult.

When I discover something has gone wrong, I get stressed and sort of preoccupied… or really concerned… with ‘what did I do wrong?’… and with controlling any possible harm for the patient. In such messy period I really do not bother filing reports.

We found that when GPs were involved in a serious, harmful incident, they wanted to confide in trusted colleagues first (see also Zwart et al. 2009, 2011a) and then they talked to the patient or the patient’s family. The GPs tended to avoid formal reporting as it seemed too impersonal, too bureaucratic. It did not fit with their feelings and emotions about the error. As Doctor Deter, a senior GP who was involved in an incident during the study, remarked,

Writing down a medical error in an incident report feels far worse than talking about it with a small group of trusted colleagues.

We did not see this apparent underreporting of serious incidents as a reluctance to report incidents, rather we see it in terms of the ways in which the GPs used the reporting system
to improve services. Care providers told us that minor incidents gain weight when reported frequently. Incidents that are frequently reported could no longer be seen as normal or insignificant, which increased the pressure to change things (see also Waring et al. 2007).

An out-of-hours service manager stressed the importance of these minor incidents:

General Practitioners showing up late for their shift, or not showing up at all, was a well-known problem in the out-of-hours service before the incident reporting procedures pilot started. Having the incidents down on paper helped us finally to put through a proposed improvement that had been opposed earlier by the doctors. The triage nurses felt that the incident reporting procedures provided the opportunity to finally get attention for this safety problem, and they have started reporting.

Thus, the participants in our study expected that there would be a high reporting rate for certain types of (minor) incidents and that the accumulation of such reports would trigger action, making reporting worthwhile. In other words, incident reporting procedure was a way of making visible and significant those incidents that previously were seen as individually insignificant but collectively could lead to harmful outcomes. Such incidents gain significance through the acts of counting and categorising. Mrs. de Vries, an experienced medical assistant, told us,

I knew that things can go wrong with urine tests in our practice, but I was shocked to learn that it happens so often! We tackled this problem quickly.

As we have indicated in this section, reporting is part of the negotiations about which incidents should be acknowledged as incidents for the purpose of the reporting system. Such incidents generally were non-medical events with no immediate impact on the patient. Reporting these incidents makes them visible. Reporting incidents, such as arriving late for a shift or mistakes in conducting urine tests, added weight to the incident so that it can no longer be seen as insignificant. The follow-up to a report made the incident visible to others. When assistants reported certain incidents, they forced GPs to reflect upon these incidents and – vice versa – when GPs report certain incidents, they required medical assistants to take action.

**Reported versus non-reported incidents**

In this section, we analyse how three serious incidents were handled. Using informal interviews with the care providers involved and a formal root cause analysis (Leistikow et al. 2005), we reconstruct the incidents from different perspectives. By examining both the formal and informal ways of dealing with these incidents, we explore how care providers aligned the logic of risk management with the logic of medical practice.

The first incident concerned a patient with an ear infection who accidentally received corrosive trichloric acetic acid (normally used to cauterise small blood vessels in the case of a nosebleed) instead of acetate ear drops in her ear, causing burning and severe pain.

The second incident concerned a patient who asked for a home visit on a Friday afternoon. The GP decided that a home visit was not necessary. The next day the patient was admitted to an intensive care unit with multi-organ failure. The third incident took place at the out-of-hours service and concerned a man with known cardiovascular risk factors, who called the triage nurse about stomach pain. He was asked to come in and see the doctor but died of a heart attack on his way to the out-of-hours service. The first incident was reported. The second was also reported, but only after an informal conversation with
the researcher as a trusted colleague about what happened. It was the researcher who asked the GP to report this incident. The third example was not reported at all, but was identified during a formal interview. In all three incidents, the professionals involved agreed upon the measures that should be taken to prevent such incidents in future. Nevertheless, these improvement measures either had no follow-up or were difficult to sustain.

Example 1: a mistake your colleague would not make

The GP involved was new in the health care centre and a locum tenens (employed on a temporary basis). The patient had an ear infection, otitis externa. The GP decided to treat the condition with aluminium acetate ear drops [Burow’s solution] applied in an ear compress. She asked a colleague where she could find a bottle of acetate eardrops. The busy colleague looked up from his work, pointed to a small table in the surgery, and indicated, ‘Somewhere over there’. The locum took the bottle she thought he was pointing at and treated the patient. Five minutes later, the patient returned with severe burning pain in the treated ear.

The GP involved reported the incident and the incident reporting committee undertook a root cause analysis which showed that there were a number of preventable causes:

- The corrosive fluid was kept on a table that was ‘easy to get at’.
- The bottle of corrosive fluid looked very much like a bottle of acetate eardrops.
- GPs in this health care centre applied various treatments for otitis externa.
- The locum was unfamiliar with the centre’s medication storage system.
- The locum misread the label on the bottle.

The incident reporting committee recommended that the corrosive fluid should be stored in a safer place, in a bottle with a clear warning sign. When we interviewed the GPs in the practice about the incident, they felt that the reporting system had worked well helping them to understand what had happened. Although they were convinced they would never have made this mistake themselves, they agreed to make the recommended changes. An extra warning sticker was placed on all bottles of trichloric acetic acid and the bottles were placed in a separate drawer, away from the acetate eardrops.

While the locum was very concerned about the incident (indeed so concerned she had reported it), her colleagues at the health care centre did not show the same concern. Either they felt that they would not have made this error because they did not use aluminium acetate ear drops to treat such ear problems, or they felt they knew where to find everything. The locum described their lack of concern in the following way:

I’ll never make this mistake again. My colleagues, the others, don’t see the problem because they would never make the same mistake. They don’t need improvement. Apparently the organisational problem is not urgent enough for them to change, despite the fact that I definitely will not be their last locum.

This example shows that the logic of risk managing and the logic of medical practice are both similar and different. Care providers do not see them as incompatible alternative but as linked (Mol 2002, Strathern 2005). The care providers felt that the safe use of corrosive fluids depended on an individual provider’s knowledge of and competence in a care setting (Lave and Wenger 1991, Wallenburg et al. 2012). Thus, each care provider was held responsible for developing such competence and should become embedded in
it – moving from the peripheral stage of the social interaction and knowledge to the centre (Wallenburg et al. 2012). However, to be on the safe side, the practitioners in this centre agreed to change the ways in which corrosive fluid were stored, in order to minimise the possibility that such an error would happen again.

**Example 2: busy Friday afternoons**

One Friday afternoon, a patient phoned a GP clinic requesting a home visit because she felt very ill. It was difficult to arrange such a visit, as the clinic was very busy. The nurse who took the call asked the GP, who happened to be passing her desk, to call this patient back. The patient, known to have addiction problems, had a reputation for being demanding. The GP knew the patient and decided that she was not as ill as she said she was. He knew the patient had visited the practice 2 days earlier to pick up a new prescription. He had seen her in the waiting room and remembered that she seemed healthy. The GP decided on the basis of these observations that a home visit was not required and asked the nurse to call the patient and give some general advice including instructions for when to call again. The next day, the patient was admitted to a hospital with multi-organ failure.

After discussing the incident with colleagues and gaining their support, this physician decided to report the incident. The incident reporting committee concluded that the GP had not checked the patient’s electronic medical record, and if he had done, he would have found a record indicating that another GP in the health care centre had had a phone consultation with the patient the day after her visit to the practice. In this consultation, the patient had presented new health complaints. The colleague had concluded that the patient suffered from flu and gave her advice by phone. The Committee found that the GP had had no direct opportunity to check the electronic medical record at the front desk because of computer security measures. Furthermore, the committee found that GPs did not routinely talk to patients requesting a home visit. The medical assistants who took the call made their own assessment of the urgency of request. Following the investigation of this incident, the health care centre changed its protocol. In the new protocol, the medical assistants no longer dealt with requests for emergency home visits. It was agreed that the GP responsible for the case should always talk to the patient and should check all available information before making the decision on whether or not the patients needed a home visit.

The committee, by using root cause analysis, was able to identify underlying causes of this incident and to identify ways in which providers involved could learn from it and improve their practice. However, in doing so, they tended to disregard the context of care and the daily dilemmas of ‘choosing between risks’, for example, how to manage home-visit requests when the service is overstretched. The care providers in our study were aware of the risk of ‘Friday afternoon overflow’ as well as the risk of dealing with ‘high-demand’ patients (Conradi 1995). Friday afternoons could only be made safer if the providers dealt effectively with lack of time and conflicting priorities. The committee, with its root cause analysis, could not consider the full context of the decision; for example, the pressure of dealing with a waiting room full of babies or infants with high temperatures, or the need to visit a seriously ill patient with cancer whose condition had deteriorated suddenly. Although all providers agreed to the new protocol for handling requests for home visits, it created additional time pressures reducing the time available for other important activities. The incident arose because the practitioner involved was cutting corners; he was using his intuitive knowledge to make a quick decision. The providers in our study accepted that cutting corners was a routine part of their everyday
practice and a way of dealing with competing priorities and shortage of time and resources (see also Niazkhani et al. 2009). GPs felt that they had to cut corners and take potentially risky decisions, such as what to do with patient A in order to win enough time to visit patient B, who might have a life-threatening condition. They accepted that making decisions without complete information was a normal and even a necessary feature of providing good care and occasionally things would go wrong (Waring et al. 2007, Dixon-Woods et al. 2009).

In this case, after discussing his experiences over coffee with colleagues, the GP involved decided to report the incident to the incident reporting committee. This meant the incident was analysed twice, once by his colleagues and the second time by the committee members. Those discussing the incident accepted that knowing the patient was important and that knowing involved more than reading a patient record but also having personal experience from talking to and/or observing the patient. The difference between the clinical and risk logic came in the assessing the practicality of gaining all information; full risk assessment required assessment of all information while the logic of clinical practice acknowledged the importance of shortcuts.

By reporting, GPs were able to make explicit the importance of seeing patients or talking to them on the phone, so they get more information on the urgency of the situation. Setting priorities for a busy Friday afternoon clinic involved numerous actions: calling or seeing a patient with an urgent complaint, delegating work to medical assistants and keeping time available for urgent visits during surgery hours. As the logics of risk and clinical care were simultaneously different and similar (Strathern 2005), they do not divide the providers into two distinctive groups those that advocated risk management and those that advocated clinical care and judgement; providers accepted both though they might differ as to which was most appropriate in a situation.

Example 3: detecting the urgent within the mundane

On a quiet Saturday afternoon, a 56-year-old man called the out-of-hours service. He told the nurse, as she recalled in an interview: ‘My gullet (oesophagus) hurts badly. I think it was what I ate last night. I’ve had this condition before, please may I drop by the out-of-hours service?’ The nurse recalled that she said he could and remembered asking, ‘Have you had any health problems before?’ The patient had said, according to the nurse, he had not and added that he lived near the out-of-hours service and could get there quickly and easily. As it was not busy at the time of his call, the patient was given an immediate appointment. Half an hour later, the patient had still not arrived. Then, an emergency nurse from an ambulance team called and told the out-of-hours service that this patient had died of a heart attack on the street.

The nurse did not report this incident to the incident reporting committee but mentioned it during our interview about the reporting system. When asked why she had not reported the unexpected death of this patient as an incident, the nurse stated, ‘But I didn’t even consider it.’ She justified her decision not to report the incident in the following way:

This was a really difficult case; the patient mentioned no history and no other complaints at all, only his gullet. So, does it really count as an incident?

In addition, she mentioned, ‘Well, everything had been sorted out so well that day, what could reporting add to that?’ The sudden death of this patient, the nurse explained in the
interview, caused major concern at the out-of-hours service. By coincidence, the patient’s own GP was on duty at the service that day. When the GP heard what had happened, he told the nurse – she recalled in the interview – that his patient had many risk factors for coronary artery disease, which made his sudden death more explicable. The GP and the triage nurse discussed the incident informally that same day. In the interview, she recalled her conclusion at that time, as follows:

I suppose I should have asked more questions, before inviting him in to the out-of-hours service.

The nurse explained to us how the providers on that shift discussed the situation and how they all agreed that she should have followed the agreed safety rules that were ‘ask all standard questions that rule out possibly life-treating situations’ and ‘always assess the urgency of a request even when the patient does not express any urgency’. In the interview, she explained to us that safe telephone triage required explicit questioning of patients to determine the urgency of the call and rule out possibly life-threatening situations, such as acute coronary syndrome. To tackle this clinically well-known risk, the safety rule is ‘always determine the urgency’, even when superficially the situation does not appear to be urgent at all. Although this rule apparently does not work in every triage conversation, it was endorsed in the informal conversations at the out-of-hours service immediately after the incident.

In our first two examples, there were explicit interactions between the logic of risk and that of clinical practice; in this case, there was no interaction, as the incident was not reported. The triage nurse felt ‘everything had been sorted out’ and there was nothing more to learn. The issue of a missed diagnosis of acute cardiac syndrome was not raised. Although there was no formal referral, the informal discussion did endorse the importance of the risk assessment and safety procedures (Waring and Bishop 2010).

Discussion
In this article, we have examined the ways in which primary care providers used incident reporting procedures as part of their practice. We have described how care providers used reporting to decide which safety problems were an acceptable part of everyday practice and which were not and should be reported (Berg 1997, Niazkhani et al. 2009). Care providers did not identify and report incidents that they considered unpreventable. A mistake all physicians would make was excluded. Such an incident was regarded by the providers as part of the work of physicians and therefore could not be prevented. Similarly, a mistake that was considered unique relating to the specific circumstances of an individual doctor and which other doctors were unlikely to make was also considered unpreventable and therefore unreportable.

Providers also exploited the reporting system for highlighting organisational problems that in themselves did not have major implication for patient safety. Both physicians and medical assistants emphasised the significance of particular incidents by reporting them frequently. In other words, particular safety problems were made significant by categorising and counting. The frequency of the reporting added weight to a specific incident. A frequently reported incident was no longer seen as unimportant. This was especially the case for safety problems that only some regard as significant while others perceive them as insignificant.
The two logics of patient safety that we distinguished in this article, risk management and clinical practice, share the same objective, patient welfare and safety, but are adjusted to the reality of clinical setting in different ways. On the one hand, the risk management technology provides a mechanism for care providers to handle safety problems more explicitly and actively (Waring et al. 2007). On the other hand, informal ways of dealing with safety problems led to improved safety, as colleagues helped each other to learn how to act (Iedema et al. 2006b, 2009, Waring and Bishop 2010). The two logics could enforce each other. Informal conversations – for instance, chatting with a colleague over a cup of coffee – could lead onto reporting incidents. The two logics, however, could also conflict. Members of the incident reporting committee – who are themselves care providers – made recommendations that conflicted with the implicit routines that make health care safer day-by-day. In addition, the ‘systems approach’ to incidents presented by an incident report system conflicted with the initial needs of providers to cope with an adverse event. Hence, they could not ‘write it down on a piece of paper’.

Although the logics of risk management and medical practice were significantly different, they did not exclude each other. In fact, both logics mutually shaped and informed each other. First, incident reporting made implicit initiatives explicit. As we described, reporting the incident of a missed home visit enabled GPs to make explicit the importance of seeing a patient or hearing their voices in order to establish the urgency of a complaint. Second, the two logics ensured that safety is about multiple actions. As the professionals stated, safe use of corrosive fluids depends upon staff knowing their way around the clinic and on an extra warning sticker. In this respect, this study confirms what we know about how knowledge and technology function differently in practices (French 2010, Alaszewski and Brown 2012). Incident report systems strive for developing technical expertise to identify the most effective approach to enhance patient safety, or more specific to prevent the recurrence of well-defined errors. In informal conversations about things that went wrong, care providers strive for better situated knowledge to identify solutions that fit in day-to-day practice. This study shows a difference in how technical expertise and situated expertise is made important for on the one hand minor and for on the other hand serious incidents. It is noteworthy that for handling minor incidents technical expertise is made important, while for handling serious incidents situated knowledge is made important.

Advocates of safety science argue that each incident should be investigated and analysed immediately as any delay involves the loss of important details (Leistikow et al. 2005). Yet, the logic of medical practice indicates that an incident should first be discussed with trusted colleagues and then the patient and his or her family. Initial discussions make it easier to report serious incidents and improve understanding of how incidents happened. Therefore, we believe that incident reporting procedures in general practice should create room for informal, confidential consultation alongside the official reporting (Iedema et al. 2006a). Alternatively, additional tools could be developed besides incident reporting to deal with incidents. Regular discussions about medical incidents, both structurally in practice meetings and informally, may increase risk awareness, openness and critically clinical reasoning.

Conclusion

Care providers negotiate about what counts as a safety problem or incident and how safety should be dealt with. In this negotiation process, the logic of risk management and the logic of medical practice are intertwined. It is the alignment of the logics that ensures that safety is about multiple and different actions.
Notes

1. We define logic as a family of explanations and practices that present a specific view on how safety can be known, controlled and influenced (Dekker 2011).
2. All names are pseudonyms.

References


