



## Narrativizing errors of care: Critical incident reporting in clinical practice

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Available online 29 June 2005

### Abstract

This paper considers the rise across acute care settings in the industrialized world of techniques that encourage clinicians to record their experiences about adverse events they are personally involved in; that is, to share *narratives* about errors, mishaps or 'critical incidents'. The paper proposes that critical incident reporting and the 'root cause' investigations it affords, are both central to the effort to involve clinicians in managing and organizing their work, and a departure from established methods and approaches to achieve clinicians' involvement in these non-clinical domains of health care. We argue that critical incident narratives render visible details of the clinical work that have thus far only been discussed in closed, paperless meetings, and that, as narratives, they incite individuals to share personal experiences with parties previously excluded from knowledge about failure. Drawing on a study of 124 medical retrieval incident reports, the paper provides illustrations and interpretations of both the narrative and the meta-discursive dimensions of critical incident reporting. We suggest that, as a new and complex genre, critical incident reporting achieves three important objectives. First, it provides clinicians with a channel for dealing with incidents in a way that brings problems to light in a non-blaming way and that might therefore be morally satisfying and perhaps even therapeutic. Second, these narrations make available new spaces for the apprehension, identification and performance of self. Here, the incident report becomes a space where clinicians publicly perform concern about what happened. Third, incident reporting becomes the basis for radically altering the clinician–organization relationship. As a complex expression of clinical failure and its re-articulation into organizational meta-discourse, incident reporting puts doctors' selves and feelings at risk not just within the relative safety of personal or intra-professional relationships, but also in the normative context of organizational coordination, accountability, planning and management.

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*Keywords:* Critical incident reporting; Adverse event; Narrative; Acute care; Discourse genre; Self identity

### Introduction

This paper addresses a phenomenon that has recently come to prominence in the sphere of acute clinical care across the industrialized world: critical incident report-

ing (CIR). Promoted as the means to enhance the safety and quality of care, CIR is discussed here as a technique that evidences a growing intensity in clinical work of ritualized reflection on 'what was done' as a way of intervening in 'how things are done'. Put in these terms, CIR is an indicator of how clinical work practices in acute care settings are changing, and how, concomitantly, clinicians and medical clinicians in particular, are expected to change as health care employees. Central

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here is that CIR is one among a number of emerging organizational strategies and discursive practices that transcend professional and specialty boundaries not by bureaucratic means, but by narrative or (inter)personal means. Essentially a device that asks clinicians to narrativize about how the clinical work unfolds, CIR is at once an organizational change device and a form of narrative representation through which people express their 'desire for a kind of order and fullness' (White, 1987: 17). This paper argues that, through engaging clinical employees (in this case, doctors) in sharing narratives about their work, organizational spaces are transmuted into places where employees are faced with the opportunity to construct, confirm or contest the technical and ethical contours of who they are and what they do.

CIR is a technique that was developed in the military to understand the behaviours of fighter pilots during World War II (Flanagan, 1954). Psychologists wanted to understand why some trainee pilots dropped out of the flight program, and why and how others were involved in incidents and accidents. On the one hand, these studies led to recommendations regarding not just the design of cockpits and instrument panels, but also the kinds of conducts performed by fighter crews. On the other hand, the focus on critical incidents enabled researchers to investigate the differences between conducts that led to success vs. those that led to failure, and to derive conclusions from that about how people should be encouraged to act, or should be *forced* to act by redesigning their work environments to produce more desirable outcomes. As Runciman and Moller (2001: 35) point out, the technique led not just to 'setting criteria for selection, training, performance and motivation of personnel, but also for improved job design, operating procedures and equipment'. The Runciman and Moller study lists work by Safren and Sanazaro and colleagues (Safren & Chapanis, 1960; Sanazaro & Williamson, 1970) as early examples of the application of CIR in health care, making the point that it was the area of anaesthesia where incident reporting was first harnessed for the purpose of systematic research into iatrogenic injury in hospitals.

Particularly in those parts of the post-industrialized world under the influence of US-led initiatives to improve clinical processes by systematizing the work, the recent uptake of CIR is the outcome of a number of related 'adverse' events and subsequent policy concern to steer hospital reform towards higher levels of clinical quality and safety. First, while comments about iatrogenic injury have circulated for many years (Codman, 1917; Moser, 1956), there has recently been increased public realization of the fact that medical-clinical practice has the potential to do harm to patients. The US Harvard Medical Practice Study (Brennan et al., 1991), followed by similar studies in other countries such

as the Quality in Australian Healthcare Study (Wilson et al., 1995)<sup>1</sup>, based estimates on a close analysis of large number of medical records, and rated the risk of preventable clinical incidents as between 10% and 16%. More recently, and second, we have witnessed a wave of UK, US and Australian publications by clinical academics as well as legal specialists and health care complaints commissioners reporting on specific clinical failures (Douglas, 2002; Kennedy, 2001; Kohn, Corrigan, & Donaldson, 1999; Vecchi, 2003; Walker, 2004). These reports contextualize the figures reported in the first-mentioned studies with analyses of instances of unsafe practice, putting experiential flesh on what had thus far been merely statistical-numerative bones. A third factor is the rising influence of the consumer movement over the last several decades and its concern that professional-expert practices should no longer be conducted behind closed doors, without accountability to outsiders. In health, this movement has led to the formation of medical consumers associations and health care complaints mechanisms in a number of countries (Duckett, 2000; Pickin et al., 2002). Fourth, commercial industry, particularly aviation, is vocal about its successes in quality assurance and performance management. The 'advances' booked in these industries are in many instances adopted as unproblematically relevant for the ways people should be managed in the public sector (du Gay, 1996a, b; Osborne & Gaebler, 1992), including health care (Helmreich, 2000; Helmreich & Merritt, 1998).

In light of these developments, of particular interest for the purposes of the present paper is the tension between the rationalizing intent behind CIR and error analysis (Leape, Woods, & Hatlie, 1996; Runciman & Moller, 2001) on the one hand, and the affective-moral dimensions of the narratives by means of which these processes are not infrequently realized, on the other hand (Iedema & Grant, 2004). With regard to its rationalizing aspect, it is important to remember that CIR arose in contexts where psychologists tried to move away from simply blaming individuals towards a broader understanding of the circumstances in which such individuals were acting, in search of 'systemic' insight into the anatomy of error. As intimated above, the intent behind CIR is to shape work practices, not connect errors and 'near misses' to right/wrong judgments about the actions of specific individuals. Critical incident analysts were interested in understanding to what extent the surrounding systems or routines of practice that contributed to things going wrong could be redesigned. Because these dimensions of practice have

<sup>1</sup>The Wilson study argued that 16.6% of admissions was associated with adverse events (of which 8.3% were judged to be preventable). The Runciman and Moller (2001) report put the adverse event rate somewhat lower, at 10%.

been found to be recurrent and (re)designable, an overwhelming percentage of (near) errors are claimed to be avoidable (Leape, 2004; Reason, 1994, 1997).

On the other hand, CIR puts an affective–moral dimension in play by inducing actors to record their (inter)personal experiences about ‘what happened’ and ‘what I did’. As early narrative research already emphasized, the peculiarity of the discursive resources deployed in narratives is that they weave representations about ‘what happened’ seamlessly into expressions about ‘how it felt’ and ‘how the event was resolved’ (Labov & Waletzki, 1967; Mitchell, 1981; Plum, 1988). This co-articulation is analytically refined in more recent research that has been able to deconstruct narrative meaning into three main dimensions. First, narrative stories tend to be *staged* in terms of Orientation<sup>1</sup>–Complication<sup>2</sup>–Evaluation<sup>3</sup>–Resolution<sup>4</sup> (Rothery & Stenglin, 1997). Second, narratives (and particularly their evaluation stages) express feelings regarding self, others and things, a domain of interpersonal discourse that has recently been researched under the label of ‘appraisal’ (White, 2002). Finally, narratives embody an intermingling of individual voices or a ‘dialogism’ (Bakhtin, 1981). This dialogic dimension is concerned with whether and how the narrative manifests and resolves struggles, conflicts and differences.

With the help of these three lenses, we propose to investigate CIR as a hybrid of systemic rationality and personalizing morality. This investigation has three broad aims: first, to determine which incident reports are narrative (because not all are); second, to demonstrate that narrative discourse weaves together the details of clinicians’ everyday experiences and their personal and moral feelings about these experiences; and, third, to argue that through this interweaving, clinicians are enabled, or rendered vulnerable if you will, to anchor(ing) ‘what went wrong’ and ‘what they felt’ to the broader reform agenda of systemic rationalization, governance, practice improvement and clinical quality and safety. Our overall argument is that narratives about (near) misses orient clinicians to sharing sentiments in a public forum (that is, a forum that includes other people than just their professional peers), and this may predispose clinicians to fold organizational values and perspectives ‘into their soul’ (Rose, 1999). Put in more theoretical terms, the paper deconstructs CIR as being a narrative technique through which affectivity, identity, practice reflexivity and organizational strategy are made to converge.

In the section that follows, the paper links the current popularity of CIR to the rise across acute care settings of processes that over the last two to three decades have called for clinicians to not just do their work but become engaged in reframing their work within meta-discourses

that foreground financial, managerialist and systematizing re-descriptions of what they do. The paper then moves on to an analysis of four critical incident reports, selected to reveal a continuum spanning from reporting that depersonalizes to reporting that personalizes adverse events. The paper then brings these points together in a discussion about the distinguishing features of CIR, extrapolating the argument to the subsequent analysis of incidents that are increasingly seen as integral to CIR, referred to as ‘root cause analysis’ (RCA). Here, we re-articulate our thesis that by exhorting clinicians to share narratives about what was observed (to go wrong), CIR and RCA help redefine the clinician–organization relationship from being purely about bureaucratizing and financializing their role towards being engaged with the work in interpersonal and moral–ethical ways. In short, CIR and RCA blur professional, specialty and organizational boundaries, and therefore can be seen as *post-bureaucratic* techniques (Iedema, 2003). The paper concludes that, as protagonists in these post-bureaucratic processes, clinicians are at once organizationally obliged and interpersonally inspired to conceive of work and self in new ways.

#### Health and the ‘new work order’: managerializing clinicians

In order to link the phenomenon of CIR in acute care to what we will argue is an over-arching trend in health reform taking place in post-industrial countries, let us briefly consider how clinicians, their autonomy and their ways of organizing clinical care have come under increased scrutiny over the last two to three decades. Most central here are those factors that have contributed to the rising cost of health care, such as progress in and availability of medical technologies and drugs, rising staff turnover, growing and increasingly older populations needing more complex and longer kinds of care, and so on. After several decades of *laissez-faire* attitudes to whether, how and by whom hospitals were managed, these developments motivated a rapprochement of policy, management and professional clinicians, with the reach and depth of this rapprochement providing a source of constant and often bitter contestation (Dent, 1998; Harrison, 1999).

Recognized as being ‘inflationary hotspots’ from the time of the global economic downturn in the 1970s, clinical services across the industrialized world began to be targeted with a variety of measures aiming to contain health care costs (Degeling, 2000). For example, in the UK around this time policy began to explore different ways in which management control over hospitals could be enhanced, with the 1983 Griffiths enquiry concentrating the attention of policymakers on the need for a managerial structure through which clinical and

<sup>2</sup>The symbol ‘^’ here means ‘is followed by’.

managerial interests could be brought together (Griffiths Report, 1983). Specifically aimed at involving doctors in management (Harrison, 1999), devolving managerial roles and tasks down to clinical 'directorates' was seen as the appropriate way of heightening medical clinicians' sensitivity to managerial concerns and budgetary constraints (Braithwaite, 1999).

However, hospital restructuring exacerbated rather than resolved the struggle between medical clinicians and managers. In recognition of the problem that the devolution of budget management failed to translate public expectations about standards of care into acceptable clinical practices, a shift in thinking began to emerge. In the English-speaking world, the 1990s signalled the turn to quality of care and patient safety (Donaldson & Gray, 1998; Leape et al., 1996). The concern with quality and safety gained legal proportions following a number of public enquiries into clinical failure. What these enquiries revealed was not just the anatomy of clinical failure of cases such as the one that took place in the Bristol Infirmary's cardiac surgery department (Bolsin, 1998). They also put into relief broader questions about the focus of traditional ways of managerializing the clinical work, such as casemix budget management, internal-market approaches favouring contracting among clinical directorates as independent budget units and risk management as an occasional and management-centred response to risk (Blandford & Smythe, 2002).

Policy makers and managers have now begun to promote a range of very different techniques that extend beyond unilateral concern with the financing of care, and that seek to reinvent approaches to establishing managerial authority over the clinical work. The first thing that strikes us about these new techniques is that they set store by increasing the personal and moral-ethical engagement by clinicians in 'organizational' matters (Iedema, Braithwaite, Jorm, Nugus, & Whelan, in press). Thus, we now hear about clinical governance<sup>3</sup>, clinical quality improvement, patient-centredness, patient safety, open disclosure and just culture, life-long learning, team work and leadership. While closely inscribed into highly specific kinds of technical-bureaucratic procedure, each of the terms just listed carries meanings that emphasize the importance of ways of working negotiated among and managed by

those who *do* the work (Bate & Robert, 2003; Iedema, Meyerkort, & White, 2005) in the spirit of moral-ethical, responsible and transparent autonomy (Degeling, 2000).

It is here that techniques like CIR and RCA play a central role: they (ideally) engage all clinicians in cooperatively (re)designing, organizing and managing their work 'from the ground up'<sup>4</sup>. Essentially post-bureaucratic devices (Iedema, 2003), CIR and RCA do not impose managerial structure from above, but *elicit structuration from below*. Front-line medical clinicians have long scrutinized each others' work as part of M&Ms, rounds and peer reviews, but these discussions have generally remained closed and paperless. With CIR and RCA, conventional 'in-house' discussions about adverse events are reconfigured into cross-disciplinary encounters that are structured around not just shared narration, but also collaboratively produced documentation, analysis and intervention. Thanks to these techniques, employees can, and are increasingly expected to, express and share feelings, norms and values about what they do, to better organize and manage what they do themselves. Before pursuing this argument further, let us turn to a select sample of CIR reports and explore these claims from an empirical vantage point.

#### Analyzing critical incident reports

The present paper's analysis is done against the background of a larger study<sup>5</sup> of a corpus of 124 critical incident reports from five participating medical retrieval organizations in Australia (organizations that specialize in sending out critical care clinicians by plane or helicopter to retrieve patients from inaccessible and remote rural places). The reports were de-identified, in terms of reporting retrieval organization and personnel, prior to analysis. The brief of our sub-study was to explore the emotional effects on retrieval clinicians of the critical events they were observing and reporting on as was evident from their CIRs. We found that CIRs harbour significant amounts of normative and emotive or 'teleo-affective' (Schatzki, 2002) discourse, pointing to considerable involvement on the part of reporting clinicians (Iedema, 2004). We do not consider this link between CIR discourse and clinicians' ability to handle

<sup>3</sup>The term 'governance' was first used in medieval-religious contexts (in the 14th century) to denote personal and communal standards and methods of discipline, predating the arrival of 'government' and 'management' (both 16th century) by more than a century (Weekley, 1967). This etymology serves not only to highlight the pre-nation-state and pre-bureaucratic connotations inherent in 'governance', but also lend force to its claim of harbouring a radically new amalgam of moral-disciplinary meanings (Iedema et al., in press).

<sup>4</sup>This apparent 'withdrawal' of management from trying to intervene in the work is "distinctive about the new managerialism" and manifests as "the abandonment of command and control conceptions in favour of [an emphasis on employees'] performativity" (Munro, 2003: 289).

<sup>5</sup>Ethics approval was obtained for this project (SWSAHS Ethics Committee: ID HS.sbHREC98/12/4.25[7 7 7]) on behalf of Careflight, Australia, with the participating organizations remaining anonymous for reasons of confidentiality.

critical incidents here however. Rather, we want to explore the implications of CIR's teleo-affective discourse for the way the clinician–organization relationship is (re)configured.

To this end, our investigation moves on two fronts. First, we begin with analysing four individual CIRs from our corpus. These four reports were selected to illustrate the extremes and intermediate points along a continuum that was evident in the reports ranging from depersonalized to personalized reporting styles. Accordingly, our analysis concentrates on, first, the contrast between *reporting* what happened and *narrating* about what happened, and, second, the shift that is structured into the critical incident report format itself from personalized narration into organizational–managerial meta-discourse. In the discussion that follows, we reflect on how these two features of CIR re-articulate the relation between clinical self-identity and organizational–managerial ethos.

Let us begin with considering Incident Report #27. The headings in bold ('**Story**', etc.) correspond to the headings that were present on the forms used by the retrieval clinicians to report critical incidents.

#### **Incident Report #27<sup>6</sup>**

##### **Story:**

Patient ... intubated by doctor in Emergency Department. Left spontaneously breathing. Retrieval team arrived. Breath sounds heard within usual total assessment. Readied for transfer, paralysed for transport.

Subsequent demise, presumed to be of neurological cause. Later review of CXR (not looked at by retrieval team) showed ETT in oesophagus.

##### **Outcome.**

Cardiac arrest.

##### **Steps taken or treatment required.**

As presumed to be neurological cause, patient already elderly and moribund, aggressive resuscitation not attempted.

##### **Was this incident preventable?**

Yes—always check CXR when available, re-check airway if paralyzing.

The event reported on in this report is clearly very serious, and for two reasons. First, the patient was intubated not into the trachea but into the oesophagus "by the doctor in Emergency Department". Second, the retrieval team did not check whether the patient was appropriately intubated. From a clinical and retrieval perspective, both these matters should cause concern. Nevertheless, all through the report, the author, whose clinical involvement with the patient is unknown, downplays the urgency and seriousness of these matters.

<sup>6</sup>These reports have been edited to comply with confidentiality standards.

This is achieved in part by reducing those facets of language that ground it in the here and now: incomplete verb forms (left ... breathing, sounds heard, readied), passive voice (intubated by doctor, sounds heard, readied) and nominalization rather than verbs (demise instead of died; review instead of reviewed). Together, these features add up to minimizing 'voice' and text structure. With regard to voice, we are given little information about who did what, apart from the emergency doctor intubating the patient incorrectly. With regard to structure, each statement follows on from the last in dot-point style, further erasing reference to details that might have complicated the event's unfolding.

In reference to the patient's death, the author concluded rather economically: "As presumed to be neurological cause, patient already elderly and moribund, aggressive resuscitation not attempted". This report was written as a list, perhaps due to lack of time or to limit attention to activities that would have deserved more probing, and mute feelings that might have unduly drawn readers' attention. At the same time, the withdrawal of personal voice from the text points perhaps to a personal or a clinical dissociation from the event. This author is not about to share many of their feelings and doubts let alone elaborate on others', rendering people's personal and moral–ethical engagement with the various aspects of what happened invisible. While this analysis may do no more than reveal the anatomy of one author's approach to CIR writing, future research may confirm this depersonalizing style to associate with reporting on errors in which the author is implicated and whose significance they therefore seek to minimize.

Let us now turn to another and much longer Incident Report<sup>7</sup>.

#### **Incident Report #43**

##### **Story:**

Pre-scene, the case load had been relatively light for a few days and after the usual readiness checks we spent the morning being orientated to and checked off on various safety equipment.

The [alarm] rang at 12:30. We were tasked to attend a MVA [motor vehicle accident] scene. Clinical details were minimal, male patient trapped in car wreckage, unconscious with head, chest and abdominal injuries. Further details were to be supplied en-route.

...

During the long outward flight it became apparent that communication was a major problem. Apparently the accident site was in a radio shadow due to mountains and we could not talk to anyone at the

<sup>7</sup>This report has been reproduced in part only; the original was five pages long.

scene. Update information from ambulance was consequently fairly sketchy. Same injuries as before, still trapped, patient hypotensive, doctors from local hospital had declined to attend scene.

Based on this information I privately developed a pessimistic opinion about the case. Unprotected airway, prolonged hypovolaemic shock, probable hypoxaemia. The golden hour had long since elapsed. I suspected that we would be called off the case due to the patient's demise but prepared myself in case that did not happen. Mentally ran through EMST principles of management.

At the scene, the accident was on a long straight road with dense timber on each side. We landed on the highway about 200 m from the scene. There was a considerable gathering present including ambulance, police and bystanders. A doctor had come from the local hospital and a paramedic had just arrived from well over 160 km away.

The patient was a [age] male from nearby town. It appeared that he was a single car occupant who at [time] had fallen asleep and driven into a large [obstacle] off the right hand side. After 2 h he had been released from the severely deformed car and had been placed in a rather small ambulance.

My assessment in back of ambulance:

- Airway satisfactory. No blood in lumen of tube but there was a 'fountain' of blood from the mouth with each inspiration, indicating an air leak past the cuff.

...

Summary—3 h post-trauma. Probable lethal brain injury with ischaemic brainstem reflex. Possible BOS fracture compound into upper airway. Facial fracture. R pneumothorax. Lower limb fractures. Possible hypovolaemia masked by brainstem ischaemic reflex.

I surmised that this patient would not have a good outcome. ...

Small chance that the patient could improve with better oxygenation. Really this would have been miraculous.

...

Expectation of everyone on scene that we would take patient.

Privately held view that this patient was a potential organ donor.

...

On arrival back at the base I was informed that the patient had 'coned' and died soon after hand-over.

Issues for discussion:

- No communication with people at scene. Made planning more difficult. Not easily fixed in this case.

- Very long distances.
- Was this retrieval futile from the outset? Impossible to make a judgement like this without reliable and up to date information from the scene.
- Requirement to wear vests at accident scene. I found this piece of equipment particularly troublesome with loose ends of fabric repeatedly dangling over patient.
- Decision to transport patient. It could be argued that this case was futile and he should not have been transported. I believe that there were other factors to consider as outlined above.
- Poor performance of propaq NIBP. Probably related to decline in patient's BP as his condition worsened. Should I have inserted an arterial line at the scene, bearing in mind that this would add to the already prolonged retrieval time?
- Useless loaded syringe carrier. Several of my pre-loaded syringes became self-emptying as I moved around and others have noted the same problem. There has to be a better way. ...

#### *Outcome.*

Died 30 min after delivering at tertiary centre.

#### *Steps taken or treatment required.*

See report.

#### *Was this incident preventable?*

Not significantly.

Clearly, report #43 unfolds very differently from report #27. Analysis reveals that the reports in fact differ on all three fronts: textual staging, attitudinal discourse and voice or dialogicity. With regard to staging, the author begins with painting a bit of background to the event (Orientation: Pre-scene), before turning to narrate events that complicate the situation: "During the long outward flight it became apparent that communication was a major problem ..."; "The golden hour [within which clinicians could successfully treat the patient] had long since elapsed" (Complication). From there, the author deploys resources with which to give significance to the event (Evaluation). We consider these resources in detail in the paragraph below. The narrative then ends with a resolution (On arrival back at base I was informed that the patient had 'coned' and died soon after hand-over). The report then changes its rhythm and abstracts a list of issues from what happened (Issues for discussion). Judged against the narrative staging sequence set out in the literature as comprising Orientation^Complication^Evaluation^Resolution (Eg-gins & Slade, 1997: 233), report #43 can be seen as a 'proper' narrative, albeit one that has a complex ending: it contains not only a Resolution but also a list of problems (accident scene vests, useless loaded syringe carrier) and meta-discursive 'issues' (decision to transport patient and choice of destination hospital). We comment on these meta-discursive items further below.

With regard to the discourse in the text that attributes significance to the event, the author takes time to share with us their 'attitude ... towards the narrative' (Labov & Waletzki, 1967: 37). This expression of attitude unfolds as a complex dynamic that interleaves three different kinds of evaluative meanings. The first kind describes *personal feelings*: "a pessimistic opinion" and "this would have been miraculous". Interwoven with this, the second kind describes *judgments about people*: "doctors from a local hospital had declined to attend the scene", "Expectation of everyone on scene that we take patient. Possible adverse publicity if we didn't". The third kind concerns the *evaluation of contextual factors*: "Update information was ... fairly sketchy", "I found this piece of equipment particularly troublesome", "Useless loaded syringe carrier", "Very long distances". Collectively, these three discourse resources crank up the teleo-affective significance and impact of the narrative (Martin, 2000; White, 2002).

Finally, and in stark contrast to report #27, report #43 harbours dialogicity (Bakhtin, 1981) in that the author weaves their voice with those of others. Examples of this are "We were tasked to attend a MVA", "I privately developed a pessimistic opinion" and "Expectation of everyone on scene that we would take patient". Each of these examples gives prominence to the dialogic intensity of the event that emerges from different voices being in tension with one another. Unlike report #27, report #43 is populated by numerous people ('the ambulance'; 'doctors from local hospital'; 'the paramedic'; 'expectation of everyone'), anchoring it to the complex dynamics of interpersonal and social relationships and responsibilities.

Overall, the teleo-affective discourse, the dialogicity and the staging<sup>8</sup> found in report #43 provide analytical evidence for regarding this report as a narrative construct. Hence, what the author has put on paper is much more than just a formal bureaucratic report; it is an account of an intractable and disturbing personal experience. The sense of difficulty and tension culminates in the doctor's final question, "Should I have inserted an arterial line ..."? This invites readers to insert their voice as well, taking the dialogic potential of narrative to its limit. Far from minimizing author engagement, as did report #27, this report represents the incident with normative-emotive richness and personal investment.

<sup>8</sup>The logic of narrative staging is that complications do not occur without evaluations and resolutions: here we are dealing with an unfolding of discourse through which people impose order on complex, confusing events, as a way of making them 'make sense'. The narrative impulse has been said to embody "a desire to have real events display the coherence, integrity, fullness, and closure of an image of life that is and can only be imaginary" (White, 1987: 24).

If the previous two reports served as examples of depersonalizing (#27) and personalizing (#43) extremes, the following two reports are more 'intermediate' examples whose narrative fullness is restricted in different ways. While both reports hold narrative impulse under close rein, the first (#21) personalizes its incident to a greater degree than does the second (#105).

#### Incident Report #21

##### Story:

Patient on GTN infusion and atenolol infusion to keep mean arterial pressure less than 100 mmHg. At receiving hospital all monitoring removed and no adequate bed space and preparation of monitoring. (Receiving hospital ICU) asked to give handover 4 times (3 × to Medical Staff and 1 × to nursing staff).

##### Outcome.

Period of hypertension in patient. Anger of retrieval team and concern for patient safety.

##### Steps taken or treatment required.

Bolus dose of GTN.

##### Was this incident preventable?

Yes, adequate preparations in major tertiary referral centre.

CIR #21 launches into a list of complications: no adequate bed space and lack of clinical response at the receiving ICU. These complications are evaluated indirectly (hypertension in patient) and directly (anger ... and concern). The 'Bolus dose of GTN' may represent a kind of resolution. The subsequent meta-discourse refers to "adequate preparations" at the receiving hospital, reconfiguring interpersonal tension into organizational solution. This narrative enables the author not just to explain clinical outcome (hypertension) but also to express feeling (anger and concern). The narrative enables the author to articulate and at the same time mitigate their criticism of staff at the receiving hospital: "asked to give handover 4 times" is not a categorical dismissal but a dramatized portrayal of social conduct inviting sympathy and approval.

CIR #105 is still more economical with regard to narrative impulse.

#### Incident Report #105

##### Story:

Multi trauma at rural hospital. Patient well prepared and worked up. Many system problems which delay time to definitive therapy.

- Other service did not wish to attend because of possible adverse weather conditions, even though crew from another service had confirmed weather to be ok.
- Regional trauma centre did not have vascular surgeon.

- Next hospital in line would not contact their vascular surgeon and refused to accept patient until they could.
- Patient eventually went to third hospital for his critical ischaemic limb injury.

**Outcome.**

Delay to definite care.

**Steps taken or treatment required.**

**Was this incident preventable?**

Yes. Improved communication. Commitment from hospitals designated as trauma centres.

On our reading, CIR #105 evidences only the bare outlines of narrative form: the report's complication (inter-professional tensions) is evaluated indirectly (delay). This event is then left unresolved, although we could read the transposition of personal feeling into organizational solution (improved communication, commitment) as a substitute resolution.

The diluted narrative form of the latter two reports notwithstanding, what CIRs #43, #21 and #105 have in common is that they embody a public expression through which personal sentiment, adverse event, and organizational document converge.

Let us move now from considering the reports' narrative form to exploring another characteristic embedded in the CIR format, because this embodies still more complexity. Besides the 'story' field that needs to be filled in, the CIR format also asks for a very different kind of writing. The section following on from 'story' asks the reporting clinician to evaluate the event from a generalized perspective (Outcome?), another asks for confirmation that what they did was procedural and effective (Steps taken?), and the last section asks them whether the event was avoidable (Was this incident preventable?). We suggest that as the author moves through these sections, the incident report effects a complex discursive calibration. First it engages the doctor in narrating their personal experiences, then it asks them to condense what happened into a general outcome, and finally it shifts them towards a meta-discursive assessment of the event and of their actions in response to it. This latter meta-discursive assessment can only be constructed from a position of oversight over not just the event itself, but over the whole of the clinical practice routines implicated by a particular retrieval and by the biomedical details pertaining to a patient. In this way, the CIR moves the author through a complex transition; ultimately, as they work their way through the form, personal feeling is reconstituted into organizational seeing.

On a still broader front, we can note that incident reporting achieves three important objectives. First, it provides clinicians with a channel for dealing with incidents in a way that brings problems to light in a non-

blaming way and that might therefore be morally satisfying and perhaps even therapeutic. Second, these narrations make available new spaces for the apprehension, identification and performance of self. Here, the incident report becomes a space where clinicians publicly perform concern about what happened. This in effect creates a commonality between personal feeling and identification, and organizational purpose and standards of effectiveness. These two possibilities produce a third possibility: incident reporting becomes the basis for radically altering the clinician–organization relationship. As a complex expression of clinical failure and its re-articulation into organizational meta-discourse, incident reporting puts doctors' selves and feelings at risk not just within the relative safety of personal or intra-professional relationships, but in the normative context of organizational coordination, accountability, planning and management.

### Concluding discussion

This paper has illustrated how contemporary managerial techniques in health care can be seen to be breaking down distinctions between self, work, organization and management. These techniques achieve this by instituting what may be called post-bureaucratic processes of inter-relating. Typical of such post-bureaucratic processes is that they rely on increased levels of participation by front-line employees. This participation is not just about more work of the same kind, but about an intensification of communication and information about the work (Iedema & Scheeres, 2003) by means of which employees themselves intervene in its design and organization, and ultimately its management. This 'self-management' emerges from a dual strategy: employees are allowed and even encouraged to privilege locally produced knowledges, and they do so in the spirit of blurring professional, disciplinary, organizational and public–private boundaries (Iedema, 2003).

We illustrated this argument with reference to four CIRs. Our first example appeared to construct distance between author and event while the other three narrowed the distance between self and event. Each of the example reports ended with a meta-discursive comment or comments, but only in the last three examples was this meta-discourse built on the authors' personal identification and the evaluative intensity of their narration. Here, albeit with different degrees of involvement, authors' intensity of feeling transmuted into a concern to pro-actively (re)organize the work. This, we argue, is at the heart of a novel shift that sees clinicians assuming *governmentality* (Foucault, 1976). A term that is cognate to governance (Flynn, 2002, 2004; Iedema et al., in press), governmentality is defined as transacting personal and intimate aspects of the work

such that they become available for scrutiny and intervention by self and others. The incident report form achieves does just that: eliciting expressions of feeling and identification within an environment of organizational normativity, CIR constitutes a complex and hybrid performance space where private and public, self and other, converge.

Considered from a still more general vantage point, the CIR creates a space for operationalizing concerns, emotions and judgments among those who in the old paradigm were to be managed 'top-down'. Seen in those terms, CIR instantiates what Munro has called the 'withdrawal of management' (Munro, 2003). What this means, we suggest, is that far from being a device entirely in the service of a budget-conscious and complaint-weary management, the CIR allows clinicians' concerns, feelings and views to be articulated in a discourse oriented to collaboratively redesigning practice in ways that answer their concerns and priorities. In that (ideal) sense, CIR and RCA as clinician-led follow-up (Iedema & Jorm, under review) provides one important example of how post-bureaucracy is beginning to reconfigure work in general and health care practices in specific, as complementary techniques, they herald a new approach to how relationships between clinicians, professions, units, managements and policy makers are arbitrated.

That said, given the professional sub-cultural divide or 'danse macabre' that still characterizes relationships in hospitals and the traditionally defensive approach to dealing with errors and incidents (Degeling, Maxwell, Kennedy, & Coyle, 2003), narrative confession and mutual scrutiny among clinicians need not always produce encouraging outcomes and may give rise to suspicion, resentment and contestation. These latter sentiments will be fuelled by disagreements about where to locate the cut-off point between, for example, a medical complication and a critical incident, between performance management (blame) and system design (no-blame) or between political tactic (who has the right to confront who with what kinds of practice improvement recommendations?) and formal 'fact-finding' procedure (root cause analysis). Each of these can become a source of contestation, and every resolution of such cut-off point in practice will be contingent on clinicians accepting and enacting far-reaching cultural and personal change.

Finally, if budget-oriented controls sought to integrate clinicians into managerial positions, CIR and related techniques have refreshed the potential to balance managerial and clinical claims over the definition and organization of medical-clinical practice. Albeit essentially post hoc and therefore retroactive strategies (Degeling, Maxwell, & Iedema, 2004a; Degeling, Maxwell, Iedema, & Hunter, 2004b), CIR and RCA privilege discourses that give greater prominence to what

matters to those who do the work and who were previously threatened with being excluded from its definition. Ultimately though, the paradox remains: only by engaging clinicians in increased cross-disciplinary surveillance and scrutiny of those dimensions of the clinical work that were previously considered to be too expert dependent, idiosyncratic and ephemeral to be susceptible to targeted management and control, will CIR and RCA succeed in elevating clinicians' personal and clinical judgments into organizational-managerial processes capable of defining, legitimating and improving their own clinical practices.

### Acknowledgements

We acknowledge Careflight NRMA Australia as the funder this project made possible in turn through a research grant from the Australian Rotary Health Research Foundation.

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