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EM-C, CO, and AM contributed to the conception and design of the study. EMC collected the data; AM, YF and CO analysed the data. All authors and contributed to the interpretation of

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## **The role of security guards in Code Black events in medical and surgical settings: A retrospective chart audit**

### **Abstract**

The prevalence of security guards in healthcare settings is growing worldwide and there is a need to explore and understand their role and actions to inform policy and training and support least restrictive practices in healthcare. The aim of this study was to conduct a retrospective chart audit of security guard logs to investigate security guard involvement in Code Blacks, called in emergency situations of personal threats including patient and/or visitor violence, in medical and surgical wards in a large metropolitan health network in South Australia. Security guards attended 1,664 Code Blacks (0.63% of admissions) over the 2.5-year study period. Events were more frequently reported in medical than surgical wards. The most common reasons for security guard attendance were patients threatening/harming staff and patients threatening/harming themselves. The most frequent security guard actions were 'Attend only/standby', 'Physical restraint', and 'Patient located and returned to the ward'. The most frequent outcomes were physical restraint, chemical restraint, and de-escalation respectively. Results highlight the imperative that health services maintain and increase efforts to support least restrictive practice through policy directives and staff training.

### **Key words**

Restraint, security guard, tertiary care centres, violence

## **Introduction**

Workplace violence in healthcare settings is an international problem, with negative effects for healthcare workers and patients and economic implications for organisations (Beattie, Griffiths, Inness & Morphet, 2018; Hills & Joyce, 2013; Morphet, Griffiths, Beattie, Velasquez Reyes & Innes, 2018). Due to an increase in violence in healthcare, the use of security guards in response to challenging behaviours in healthcare settings is also becoming increasingly prevalent worldwide (Gillespie, gates, Miller & Howard, 2012; Mitra et al., 2018). In Australian hospitals, a key role of security guards is as part of an emergency response team, working alongside clinical staff responding to Code Black events (designated 'Code Grey' in some settings). Code Blacks are called in emergency situations of personal threats including patient and/or visitor violence.

With the increasing presence and involvement of security guards in healthcare settings in Australia and internationally, it is important to explore what role security guards play in managing challenging behaviour in these settings to inform policy and training. Existing research has predominantly focused on security guards within the Emergency Department (ED) context, yet their role in the general wards in the hospital setting remains largely unexplored.

## **Background**

There is significant concern about levels of violence and aggression in health care settings (Schablon et al., 2012; Zeh, Schablon, Wohlert, Richter & Nienhaus, 2009). A recent systematic review and meta-analysis reported "one in five health care professionals experienced workplace physical violence perpetrated by patients or visitors worldwide

annually” (Li, Li, Qiu & Xiao, 2019, p. 1). Rates of patient and visitor perpetrated violence on hospital workers is reported as 22-90% for verbal abuse, 12-64% for physical threats, and 2-32% for assaults (Pompeii et al., 2013). In a recent survey of medical-surgical nurses, almost 90% of respondents reported emotional violence experienced in the the last 12 months, with nearly 60% reporting physical violence from patients and/or their families (Havaei & MacPhee, 2020).

Security guards are a key element of occupational violence and aggression prevention and management programs in healthcare worldwide (Mahalleh, Khoshknab, Rahguy, Arsalani & Akbar, 2019; Morken & Johansen, 2013; Morphet et al., 2018; Partridge & Affleck, 2017; Peek-Asa et al., 2007). In a review of the literature on violence in the ED setting, research reported around 50% of EDs had security personnel present, with security provisions in the United States (US) generally reported as greater than in the United Kingdom (UK) (Stirling, Higgins & Cooke, 2001). A more recent study in the UK reported an increase in the use of security personnel in Irish psychiatric hospitals between 2008 and 2012 (Shannon, Devitt & Murphy, 2015).

The presence of security personnel is generally viewed positively by health professionals. Health professionals in EDs in particular report the need for security guards to be present in these settings (Copeland & Henry, 2017; Gillespie et al., 2012); no research was identified on views of security guards being present in medical or surgical settings. An Australian study identified that having security guards in the ED, who are a visible presence and who respond quickly to incidences of verbal abuse and physical assault, helped staff to feel safe (Partridge & Affleck, 2017). Conversely, in a review of the literature on perpetrator, worker, and

workplace characteristics of violence in hospital settings, the lack of security guards, in addition to the lack of assistance provided by security guards who are present, have been identified as factors associated with patient and visitor perpetrated violence (Pompeii et al., 2013).

Despite staff feeling safer with security guards being present, the link between security presence and episodes of violence and aggression is not established. While there appears to be a correlation between beliefs about the adequacy of security measures and perceived safety, there is little evidence that the presence of security guards relates to lower rates of violence-related injury to staff (Blando, O'Hagan, Casteel, Nocera & Peek-Asa, 2013; Gerberich et al., 2005). The need for security guards to have adequate training in managing aggressive and violent patients has also been identified (Copeland & Henry, 2017; Gillespie et al., 2012; Mitra et al., 2018), particularly given that "hospital security is significantly different from any other security role" (Anderson, 2019, p. 11).

Concerns have also been raised about the effect of the growing security guard presence in health care settings on patients. For example, in a study of manual restraint in 136 acute psychiatric wards in England, Bowers, Van Der Merwe, Paterson, and Stewart (2012) reported an association between access to security guards and increased restraint use. In a discussion of trauma-informed care in primary medical settings, Hamberger, Barry, and Franco (2019) discussed the potential triggering effect of security guards on vulnerable patients with a history of abuse.

The issue of power differentials between security guards and patients have furthermore been identified. Browne et al. (2016), for example, raised concerns about power differentials with Indigenous clients. In their Canadian study of evidence-based strategies for enhancing health care equity with Indigenous populations, they found some clinics “explicitly decided not to staff waiting rooms with security guards” (p. 9). In a qualitative study of security guards working in the psychiatric units of two Canadian hospitals, Johnston and Kilty (2016) note the “intimidating and coercive gendered power relations” (p. 193) between security guards and adult female patients.

Least restrictive practices are encouraged in all health settings to reduce the harmful consequences of restraint and to provide high quality person-centred care without force. Nevertheless, the incidence of aggression and violence in inpatient settings has increased (WHO, 2017). For that reason, security guards are present in areas such as EDs and form members of the teams (Code Black) to respond to aggressive or violent events. While the use of non-health professionals in the management of behaviours of concern is problematic to clinicians and researchers, security guards are now a common feature in all hospital settings in Australia. It is important, therefore, to understand the role of security guards to inform policy and training needs (Muir-Cochrane & Musker, 2015). This includes the need to understand the role of security guards in Code Black events, emergency situations of personal threats including patient and/or visitor violence, in hospital settings.

In Australia, research into the role of security guards in Code Black (as noted earlier, these are sometimes designated Code Grey) events has used data from security logs to explore patient characteristic and event outcomes (Downes, Healy, Page, Bryant & Isbister, 2009;

Hopper, Babl, Stewart & Woo, 2012; Nikathil et al., 2018). The work by Mitra et al. (2018) in the ED setting was the only study that characterised security responses to workplace violence, defined as staff being “abused, threatened, or assaulted in circumstances related to their work” (p. 2). The study drew on the same data set as that of Nikathil et al. (2018). There were 1,853 violent episodes (committed by 1,224 patients) requiring security presence. Of these, 144 (7.8%) were managed by security personnel without physical interventions, with most cases (92%) requiring physical and/or chemical restraint.

In another study of security logs and medical records, this time in the children’s hospital setting, Hopper et al. (2012) explored aggression management using an aggression management team (Code Grey), including security guards. They identified 104 Code Grey incidents over the 14-month data collection period, 75 of which involved patients and 29 involved visitors. For patients, aggression management by the team was in the form of verbal de-escalation (56/75 events), physical restraint (34/75), sedation (23/75), and mechanical restraint (15/75). Verbal de-escalation occurred in 17/29 cases involving visitors and 10/29 visitors left or were removed. In a US study of the use of security officers on inpatient psychiatric units (Lawrence, Perez-Coste, Arkow, Applebaum, & Dixon, 2018), ‘threats to persons’ was the most common reason for security involvement with the most common intervention being intramuscular antipsychotic injections (chemical restraint).

Research on Code Black events and security guard involvement has tended to focus on the ED and mental health settings (Downes et al., 2009; Lawrence et al., 2018; Mitra et al., 2018; Nikathil et al., 2018), with less focus on medical and surgical wards. As Williamson et al. (2014) point out, research in these settings does not necessarily translate to general

inpatient settings. In order to address this knowledge gap, this Australian study investigated security guard involvement in Code Black events in medical and surgical wards as documented in security logs.

## **Methods**

### *Aims*

The aims of this study were to explore:

- The number of Code Black events requiring security guard presence
- The reason(s) for security guard presence
- The actions of security guards during Code Black events
- The outcomes of the events in which security guards were involved.

### *Design and Setting*

Retrospective chart audits are a well-established, widely used approach to exploring and understanding processes and outcomes in health care (Barick et al., 2018). A 2.5-year retrospective audit (from 1 January 2016 to 30 June 2018) was conducted of security guard logs of Code Black events in medical and surgical wards in a large metropolitan health network in South Australia, comprising three hospitals.

Security guards are on site 24/7 and undertake a range of roles such as site access, controlling pedestrian and vehicular traffic, carrying out random patrols, acting on and reporting incidents that could jeopardise the safety or security of patients, staff and assets, among other roles. They also participate in the Emergency Response Team, including participating in Code Blacks. Code Black teams are comprised of two security guards, two

nursing staff, two patient services assistants, one allied health staff, and a doctor. Security guards take direction from the clinical lead of the Code Black team in attendance. The Code Black team work with the primary treating team to control an aggressive or violent situation and to provide least restrictive clinical interventions to manage the situation.

Security guards are required to have completed an accredited security training course from a Registered Training Organisation. The nature of these courses varies among jurisdictions in Australia. In addition, all health personnel and security guards working in the public sector undertake state (South Australia) wide aggression training, the 'Management of Actual or Potential Aggression Foundation program', with a focus on de-escalation and safety in controlling aggressive or violent situations.

#### *Data Collection*

The security log collects data about incidences requiring security guard presence in a central pool of data for the health network, entered into the system by one of the attending security guards. For the purposes of this study, variables of interest related only to Code Black events in the Medicine, Cardiac and Critical Care Services Directorate (medical wards) and Surgical and Perioperative Medicine Directorates (surgical wards). Security log data was received from the hospital in de-identified form. Most variables used in this study were recorded in the security log in dedicated drop-down menus. In addition, the free-text information under 'What happened' was read and coded by the researchers to form the variable 'Security guard actions', which describes the actions undertaken by security guards (see Table 1). Note that we separated 'chemical restraint delivered orally' from chemical restraint outcomes as the former method of administration suggests at least *some* level of

consent from the patient (although arguably there is still coercion with the presence of security guards) and chemical restraint involves the compulsory administration of medication to manage an unsafe situation (Hu, Muir-Cochrane, Oster, & Gerace, 2018).

[Insert Table 1]

Information on the number of admissions to the wards over the relevant time period was collected in order to analyse the percentage of admissions to which security guards attended for Code Black events. The number of admissions to the wards over this period of time was 264,790. No information on bed numbers, nor separate data on admissions to medical and surgical wards, was available due to significant changes in hospital wards during this time with wards closing, new ones opening, wards being renamed, and some being merged.

#### *Ethical Approval*

Ethical approval was obtained from the Southern Adelaide Clinical Human Research Ethics Committee (number 124.18) and reciprocal approval provided by Flinders University Social and Behavioural Research Ethics Committee.

#### *Data Analysis*

Data were analysed using IBM SPSS Statistics version 22 (Armonk, NY, USA). Descriptive analyses (frequency, percentage) were conducted to describe the variables. Rates were calculated as number of events divided by total number of admissions.

A descriptive data analysis approach was undertaken. A number of issues prevented further statistical analysis. The first was non-independence in the sample, and possible multicollinearity from inter-association, and these violate the assumptions of many statistical tests. In our dataset, one event often resulted in a number of responses and outcomes, thus there was an overlapping of categories within a case which could not be separated. Also, the differences in frequency, including very low numbers in many categories, made it difficult to undertake statistical analysis. Therefore it was decided that descriptive statistics provided sufficient information for understanding and interpretation.

## **Results**

### *Number of Code Black events requiring security guard presence*

A total of 1,664 Code Black events involving security staff were reported between 1 January 2016 and 30 June 2018, representing 0.63% of admissions to the wards over that time period. There were 619 (37.2%) events in 2016, 739 (44.4%) in 2017, and 306 (18.4%) in the first half of 2018. Events were more frequently reported in the medical wards (n = 1,149; 69% of all events) than surgical wards (n = 515; 31%).

The timing of the security guard events shows a constant base level of activity, day or night. However, there is a steady gradual increase from the 10:00-10:59 timeslot onwards, peaking at 18:00-18:59, when the number doubles in comparison to the lowest timeslot. Thereafter, a steady gradual decline occurs, with the exception of a brief rise at the 0:00-0:59 timeslot. A stable period of minimum activity occurs between the 2:00-2:59 to 7:00-7:59 timeslots (see Figure 1).

[Insert Figure 1]

### *Reason(s) for security guard presence*

Reasons for security guard attendance during Code Blacks are reported in Table 2, showing the most common reasons were 'Patient threatening/harming staff' (58.4%, n = 972) and 'Self harm (actual or threatened)' (34%, n = 566). Events predominantly involved patients rather than visitors to the wards (97.5%, n = 1623). Both medical and surgical wards had similar patterns of distribution for the reason why a Code Black was called, with a slightly higher proportion of 'Patient threatening/harming staff' in the medical wards and 'Self harm (actual or threatened)' in the surgical wards (see Table 3).

[Insert Table 2]

[Insert Table 3]

### *Security guard actions*

The frequency of the range of security guard actions, when attending Code Black events, is reported in Table 4 (Note: the total 1898 reflects multiple actions for events). The most frequent actions were 'attend only/standby' (42.4% of events, n = 705), 'physical restraint' (35.3%, n = 588), and 'patient located and returned to the ward' (13.2%, n = 219).

Interestingly, de-escalation as a security guard action was 0.8% of events (n=13), despite security having no direct involvement nor a prescribed role in such actions during aggressive or violent incidents.

[Insert Table 4]

There was more than one security guard action recorded in 14% of the cases. The most commonly reported multiple actions were 'Physical restraint + Patient located and returned

to the ward' (n = 86), 'Physical restraint + Mechanical restraint' (n = 86), and 'Physical restraint + Security officers applied force' (n = 55). In 10.3% (n = 172) of events, security guards were stood down on arrival.

The two main reasons for security guard attendance at Code Black events were patients threatening or harming staff, and patients threatening or harming themselves, so we explored the distribution of these reasons in relation to the actions undertaken by security guards. Table 5 shows the proportions of Security Guard Actions by Reasons, revealing a higher proportion of 'Attend only/standby' actions in response to patients threatening or harming themselves and 'Physical restraint' actions in response to patients threatening or harming staff.

[Insert Table 5]

Table 6 shows similar distributions of security guard actions among medical and surgical wards, with a slightly higher proportion of 'Attend only/standby' actions in the surgical wards and a slightly higher proportion of 'Physical restraint' and 'Patient located and returned to the ward' in medical wards.

[Insert Table 6]

### *Incident outcomes*

The frequencies for incident outcomes are reported in Table 7 (Note: the total 2,342 reflects multiple outcomes for events). The most frequent outcomes were 'Physical restraint' (36.0% of events, n = 598) and 'De-escalation' (33.2%, n = 552), followed by 'Chemical restraint' (30.2%, n = 502). Chemical restraint delivered orally comprised a further n = 91 (5.5%)

outcomes, and 15.3% of all chemical restraints combined (n = 593). There was often more than one outcome for each event. The most commonly reported multiple outcomes were 'Physical restraint + Chemical restraint' (n = 401), 'Physical restraint + Mechanical restraint' (n = 90), and 'Physical restraint + Escorted to ward – by security' (n = 84).

[Insert Table 7]

With the main reasons for security guard attendance at Code Black events being either the patients threatening or harming staff, or the patients threatening or harming themselves, we explored whether these different reasons were related to different outcomes. Table 8 shows the proportions of incident outcomes according to reason, revealing a higher proportion of physical and chemical restraint for patients threatening or harming staff, and de-escalation for patients threatening or harming themselves. There was also a slightly higher proportion of oral chemical restraint for patients threatening or harming themselves, and of mechanical restraint for patients threatening or harming staff.

[Insert Table 8]

We examined if outcomes were distributed differently in medical and surgical wards. Table 9 shows similar proportions for both areas, with a slightly higher proportion of 'Physical restraint' and 'Chemical restraint' in medical wards and a slightly higher proportion of 'De-escalation' in surgical wards. While there was only a small number of events involving police attendance overall (n=19), there was a slightly higher proportion of these events in surgical wards. In terms of the outcome of being escorted to the ward by security, a slightly higher proportion of these events were in medical wards.

[Insert Table 9]

## **Discussion**

This is the only study that we know of reporting the role of security guards in Code Black events outside of the context of EDs or mental health wards in Australia and internationally. Security guards attended 1,664 code black events in medical and surgical wards over the 2.5-year study period, representing 0.63% of admissions to the wards over that time. This is fewer than the number reported in a recent Australian study in the ED context, where 1,853 episodes were attended to by security guards over a 2-year period (Mitra et al., 2018), although the authors did not determine events as a proportion of admissions.

While there was variation in the timing of events, doubling between 18:00-19:59, there was a clear need for support at any time day or night. It is not clear from the data we collected why this time of day is significant, but we can suggest that mealtimes, medication rounds, and visiting times may contribute to heightened activity on the ward affecting patient behaviours (Hu et al., 2018). Time of day for the call of Code Blacks on medical and surgical wards requires further examination to establish causative factors and thus to identify solutions. Security guards were more likely to be called to medical than surgical wards. While we were unable to ascertain number of admissions for medical versus surgical wards, anecdotally there are more admissions to medical wards, which would explain these differences. Our data did not provide details of patient diagnosis so we are unable to explore this further in this study. However, these findings indicate the need for specific strategies to encourage early recognition and settling of agitated patients and assessment and monitoring of patients in these wards who are likely to have unique and individual needs.

The main reasons for security guard involvement in Code Black events were patients threatening or harming staff, and patients threatening or harming themselves. Nearly 60% of events involved a Code Black being called for threats or actual harm to staff. With high rates of violence and aggression experienced by staff in health care settings (Li et al., 2019), this study suggests security guards played an important role in protecting staff in these situations. It is not known from the security logs in what way patients threatened or harmed themselves, and the nature of these harms deserves further investigation so that specific deescalation interventions could be developed and implemented.

Security guards undertook a number of roles in responding to Code Black events in the medical and surgical wards. In 42.4% of Code Black events, the Code Black team attended only or were on standby which could be interpreted as a 'show of force' by the team, resulting in a de-escalation of the situation. Security guards are readily identifiable in their uniforms to patients who are likely to feel intimidated by their presence, causing them to reduce their aggressive behaviour (Gerace et al., 2018). Importantly, the use of attendance without intervention needs to be also seen in the context of the potential traumatic nature of the event for patients and the need to practice in a trauma informed manner (Musckett, 2014). In around 10% of security guard calls, guards were stood down on arrival, indicating staff were able to resolve the issues prior to security guard attendance, suggesting initiatives are needed to aid staff to make informed decisions about the timing of calling for assistance, thus further reducing potential trauma for patients.

Over a third of events involved security guards applying physical restraint, with physical restraint being more prevalent in events where patients were threatening/harming staff as opposed to threatening/harming themselves. This highlights the importance of security guards being adequately trained in the safe and effective restraint of patients in a hospital setting (Copeland & Henry, 2017; Gillespie et al., 2012; Mitra et al., 2018). A further role of security guards in medical and surgical wards was in locating patients who had left their ward/bed and escorting them back.

It is of interest and concern that in a very small number of events security guards are documenting their actions as 'de-escalation' despite this action not being part of their scope of practice in health settings. It may be that the documentation is incorrect and that de-escalation was an outcome of the incident but was entered as an action of security staff. This suggests a need for further investigation about the reasons why documentation has occurred in this way to identify areas requiring improved education and communication.

In Mitra et al.'s (2018) study of security interventions in the ED, most cases (92%) involved physical and/or chemical restraint to control the situation. The situation was quite different in our study of medical and surgical wards, where in around a third of events (33.2%) the situation was de-escalated. Restraints were also common outcomes for these events, with 36% involving physical restraint and 35.7% involving chemical restraint. The reporting of oral chemical restraint might indicate that with earlier intervention with the use of "pro re nata" (PRN), or "as needed", medication or other de-escalation strategies, the Code Black event may have been able to be avoided. Chemical restraint is defined by the Australian National Safety and Quality Partnerships (SQPS) as:

... the administration of medication in an emergency situation and on an involuntary basis to control the behaviour of a person to prevent the person from harming him/herself or endangering others.

However, it is not known whether security guards were able to properly assess this outcome, perhaps confusing oral chemical restraint with administration of PRN medication.

There was a higher proportion of physical and chemical restraint for patients threatening or harming staff, and de-escalation for patients threatening or harming themselves. Australia, like other countries, is committed to least restrictive practice in health care (Government of South Australia, 2019). Our findings can be interpreted to mean that increased restriction of patients is justified when the safety of staff is at risk and staff feel confident using de-escalation as a least restrictive intervention when patients are at risk to themselves. As this is a new area of enquiry regarding the involvement of security guards, further work on rates and the nature of incidents is required to gain a comprehensive illustration of how aggression and violence is being managed in general wards across Australia. Least restrictive environments and health care delivery in trauma informed ways are benchmarks for best practice and can significantly inform how to care for people who are distressed, aggressive, and violent in general health settings

### *Limitations*

As with all retrospective chart reviews, the limitations of this study include incomplete documentation, variants in the quality of the information recorded by different individuals, difficulty interpreting information found in the documents, and difficulty establishing cause

and effect (Gearing, Mian, Barber & Ickowicz, 2006). The security staff enter data on each Code Black incident rather than each individual patient, and so it was not possible to identify multiple incidents by individual patients, nor was information collected on patient demographics. We did not match incident data to patient data collected in other hospitals systems because the focus of this study was the role of security guards. The logs were completed by security guards who do not have the clinical skills to determine factors such as the reasons for security guard presence or the nature of outcomes such as chemical restraint. Overall, there is a lack of clinical information in the security logs. Lack of patient level information limits understanding of the context of security guard presence, such as patient age and the extent of delirium and dementia.

## **Conclusion**

Code Black events, while less common than in the emergency department context, do occur in medical and surgical wards. Understanding the actions of security guards in emergency situations of personal threats including patient and/or visitor violence can inform policy and education for security guards in health care settings. This study provides a description of the role of security guards in Code Black events in the medical and surgical wards of a local area health network in South Australia, highlighting their primary role as a key member of the Code Black team to manage patient violence and aggression in this context. As with any research reporting data from checklists, it is not possible provide a complex picture of the nature of the security guards' role in these events. However, security guard involvement in physically restraining patients in medical and surgical wards highlights the need for further research to inform policy and training to support least restrictive practices and trauma informed care for hospitalised patients.

## **Relevance for Clinical Practice**

A recent Australian report on security in New South Wales hospitals notes “a clear lack of understanding of the powers and responsibilities of security officers” (Anderson, 2019, p. 8). With the increasing presence and involvement of security guards in interacting with patients in health care settings, and security guard involvement in physical restraint of potentially vulnerable patients, there is a need for clear roles and responsibilities in addition to minimum standards for security guards (Anderson, 2019; Mitra et al., 2018). Furthermore, security guards need to be adequately trained to work in this unique environment (Mitra et al., 2018). We concur with Anderson’s (2019, p. 15) proposal that a security guard license Class should be “created specifically for hospital security” specifying “competencies and training applicable to the hospital security role”. The role and function of security guards and the specific nature of their role relationship with clinical staff is an important area deserving attention in the context of least restrictive care for patients when in hospital. Security log data needs to be monitored and high rates of physical and chemical restraint addressed.

In our analysis it was not possible to identify whether there were significant differences in the use of security guards in different units. Further research investigating rates on different medical and surgical units as well as staff perceptions of risk and association of this with the use of security guards is of merit. Also, examining characteristics of patients associated with code black calls can illuminate causative factors for the calling of the Code Black, which in turn can assist the use of alternative and less restrictive care measures. Final implications from this study include the need for further investigations into the nature of

the work of security guards in the management of aggression and violence and the most appropriate scope of practice for their involvement in care in hospital settings.

**Author contributions:**

**Study design:** EM-C, CO, AM

**Data collection:** EM-C

**Data analysis:** AM, YF, CO

**Manuscript writing:** EM-C, CO, AM, YF

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## Figure Legends

Figure 1. Code Black incidents for each hourly timeslot

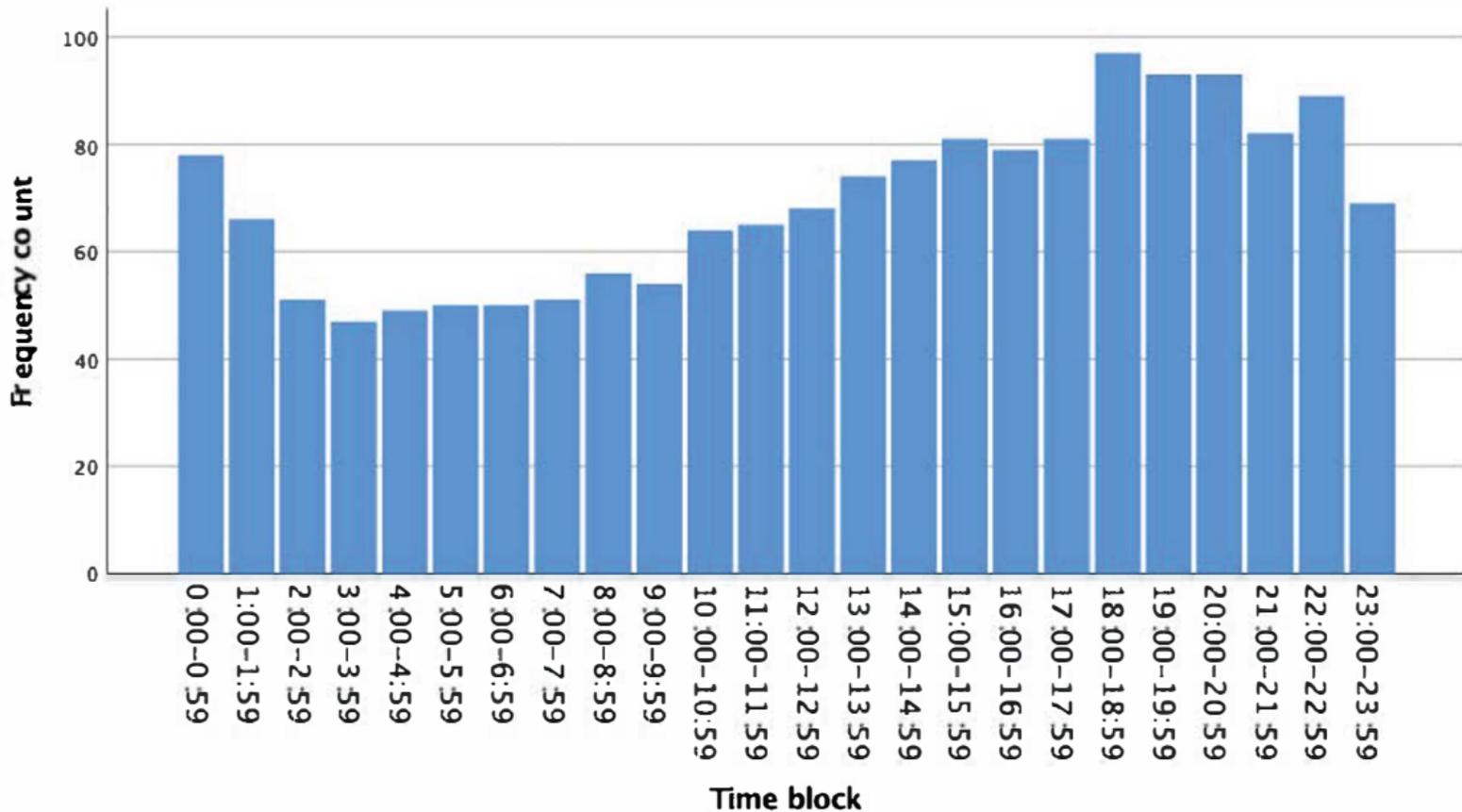
**Table 1. Variables from security log**

<b>Drop-down menu options</b>	<b>Coded from free text entry</b>
Date of incident	Security guard actions:**
Time of Incident	Attend only/standby
Directorate:	Physical Restraint
Medicine, Cardiac and Critical Care Services	Patient located and returned to the ward
Surgical and Perioperative Medicine	Stood down on arrival
Reason for incident:*	Mechanical Restraint
Patient threatening/ harming other person	Security officers applied force
Patient threatening/ harming staff	Searched for a person of interest
Self-harm (actual or threatened)	Escorted a person from the premises
Non-patient threatening/ harming other person	De-escalation
Non-patient threatening/ harming staff	Escorted a patient - transferral
Illegal Occupancy/Trespass	Unknown
Incident outcome:**	No security involvement
Physical restraint	Searched a person or their possessions
De-escalation	Notified Police
Chemical restraint	
Chemical restraint (oral)	
Escorted to ward - security	
Unknown	
Mechanical Restraint	
Treatment administered	
Escorted to ward - staff	
Returned to ward - own	
Police attendance	
Escorted from premises	
Patient transfer complete	
Person unable to be located	
Absconded (under order)	
Patient left site	
Security guard injury	
Visitor left ward	
Patient injury	

\* Only one reason is able to be selected

\*\* Multiple selections/codes are possible

Figure 1. Code Black incidents by Timeslot



**Table 2. Reasons for security guard attendance**

<b>Reasons</b>	<b>N</b>	<b>Percent</b>
Patient threatening/harming staff	972	58.4%
Self-harm (actual or threatened)	566	34.0%
Patient threatening/harming other person	85	5.1%
Non-patient threatening/harming staff	31	1.9%
Non-patient threatening/harming other person	7	0.4%
Illegal Occupancy/Trespass	3	0.2%
<b>Total</b>	<b>1664</b>	<b>100.0%</b>

**Table 3. Proportion of reasons for security guard presence by ward area**

<b>Reason</b>	<b>Medical wards n (%)</b>	<b>Surgical wards n (%)</b>
Patient threatening/ harming staff	683 (59.4%)	289 (56.1%)
Self-harm (actual or threatened)	382 (33.2%)	184 (35.7%)
Patient threatening/ harming other person	55 (4.8%)	30 (5.8%)
Non-patient threatening/ harming staff	23 (2.0%)	8 (1.6%)
Non-patient threatening/ harming other person	4 (0.3%)	3 (0.6%)
Illegal Occupancy/Trespass	2 (0.2%)	1 (0.2%)

**Table 4. Security guard actions**

<b>Security Guard Actions</b>	<b>N</b>	<b>Percent</b>	<b>Percent of Events</b>
Attend only/standby	705	37.1%	42.4%
Physical Restraint	588	31.0%	35.3%
Patient located and returned to the ward	219	11.5%	13.2%
Stood down on arrival	172	9.1%	10.3%
Mechanical Restraint	95	5.0%	5.7%
Security officers applied force	55	2.9%	3.3%
Searched for a person of interest	16	0.8%	1.0%
Escorted a person from the premises	15	0.8%	0.9%
De-escalation	13	0.7%	0.8%
Escorted a patient - transferral	11	0.6%	0.7%
Unknown	3	0.2%	0.2%
No security involvement	2	0.1%	0.1%
Searched a person or their possessions	2	0.1%	0.1%
Notified Police	2	0.1%	0.1%
<b>Totals</b>	<b>1898</b>	<b>100.0%</b>	<b>114.1%</b>

**Table 5. Proportion of security guard actions by the two main reasons**

<b>Action</b>	<b>Patient threatening/harming staff n (%)</b>	<b>Self-harm (actual or threatened) N (%)</b>
Attend only/standby	361 (37.1%)	288 (50.9%)
Physical Restraint	413 (42.5%)	141 (24.9%)
Patient located and returned to the ward	135 (13.9%)	70 (12.4%)
Stood down on arrival	90 (9.3%)	60 (12.4%)
Mechanical Restraint	75 (7.7%)	16 (2.8%)
Security officers applied force	44 (4.5%)	3 (0.5%)
Escorted a person from the premises	5 (0.5%)	4 (0.7%)
De-escalation	6 (0.6%)	2 (0.4%)
Searched for a person of interest	5 (0.5%)	8 (1.4%)
Escorted a patient - transferral	7 (0.7%)	4 (0.7%)
Unknown	1 (0.1%)	1 (0.2%)
No security involvement	2 (0.2%)	0 (0.0%)
Searched a person or their possessions	1 (0.1%)	0 (0.0%)
Notified Police	0 (0.0%)	0 (0.0%)

**Table 6. Proportion of security guard actions by ward area**

Action	Medical wards n (%)	Surgical wards n (%)
Attend only/standby	466 (40.6%)	239 (46.4%)
Physical Restraint	428 (37.2%)	160 (31.1%)
Patient located and returned to the ward	166 (14.4%)	53 (10.3%)
Stood down on arrival	117 (10.2%)	55 (10.7%)
Mechanical Restraint	63 (5.5%)	32 (6.2%)
Security officers applied force	44 (3.8%)	11 (2.1%)
Searched for a person of interest	9 (0.8%)	7 (1.4%)
Escorted a person from the premises	8 (0.7%)	7 (1.4%)
De-escalation	8 (0.7%)	5 (1.0%)
Escorted a patient - transferral	8 (0.7%)	3 (0.6%)
Unknown	3 (0.3%)	0 (0.0%)
No security involvement	2 (0.2%)	0 (0.0%)
Searched a person or their possessions	2 (0.2%)	0 (0.0%)
Notified Police	1 (0.1%)	1 (0.2%)

**Table 7. Incident outcomes**

	<b>N</b>	<b>Percent by outcome distribution</b>	<b>Percent by outcome (multiple outcomes)</b>
<b>Incident Outcomes Frequencies</b>			
Physical restraint	598	25.5%	36.0%
De-escalation	552	23.6%	33.2%
Chemical restraint	502	21.4%	30.2%
Escorted to ward - security	209	8.9%	12.6%
Unknown	105	4.5%	6.3%
Mechanical Restraint	99	4.2%	6.0%
Chemical restraint (oral)	91	3.9%	5.5%
Treatment administered	49	2.1%	2.9%
Escorted to ward - staff	40	1.7%	2.4%
Returned to ward - own	23	1.0%	1.4%
Police attendance	19	0.8%	1.1%
Escorted from premises	14	0.6%	0.8%
Patient transfer complete	12	0.5%	0.7%
Person unable to be located	9	0.4%	0.5%
Absconded (under order)	7	0.3%	0.4%
Patient left site	5	0.2%	0.3%
Security guard injury	4	0.2%	0.2%
Visitor left ward	2	0.1%	0.1%
Patient injury	2	0.1%	0.1%
<b>Totals</b>	<b>2342</b>	<b>100.0%</b>	<b>140.8%</b>

**Table 8. Proportion of outcomes by the two main reasons**

<b>Outcome</b>	<b>Patient threatening/ harming staff n (%)</b>	<b>Self-harm (actual or threatened) n (%)</b>
Physical restraint	419 (43.1%)	145 (25.6%)
Chemical restraint	358 (36.8%)	108 (19.1%)
Chemical restraint (oral)	45 (4.6%)	43 (7.6%)
De-escalation	285 (29.3%)	222 (39.2%)
Escorted to ward - security	128 (13.2%)	66 (11.7%)
Mechanical Restraint	78 (8.0%)	17 (3.0%)
Unknown	51 (5.2%)	43 (7.6%)
Treatment administered	14 (2.5%)	21 (3.7%)
Escorted to ward - staff	13 (1.3%)	24 (4.2%)
Returned to ward - own	13 (1.3%)	10 (1.8%)
Escorted from premises	5 (0.5%)	4 (0.7%)
Police attendance	16 (1.6%)	2 (0.4%)
Patient transfer complete	7 (0.7%)	5 (0.9%)
Person unable to be located	5 (0.5%)	2 (0.4%)
Absconded (under order)	2 (0.2%)	4 (0.7%)
Patient left site	3 (0.3%)	2 (0.4%)
Security guard injury	4 (0.4%)	0 (0.0%)
Patient injury	2 (0.2%)	0 (0.0%)
Visitor left ward	0 (0.0%)	0 (0.0%)

**Table 9. Proportion of outcomes by ward area**

<b>Outcome</b>	<b>Medical wards n (%)</b>	<b>Surgical wards n (%)</b>
Physical restraint	435 (37.9%)	163 (31.7%)
Chemical restraint	369 (32.1%)	133 (25.8%)
Chemical restraint (oral)	61 (5.3%)	30 (5.8%)
De-escalation	367 (31.9%)	185 (35.9%)
Escorted to ward - security	156 (13.6%)	53 (10.3%)
Unknown	71 (6.2%)	34 (6.6%)
Mechanical Restraint	63 (5.5%)	36 (7.0%)
Treatment administered	32 (2.8%)	17 (3.3%)
Escorted to ward - staff	28 (2.4%)	12 (2.3%)
Returned to ward - own	15 (1.3%)	8 (1.6%)
Escorted from premises	7 (0.6%)	7 (1.4%)
Patient transfer complete	9 (0.8%)	3 (0.6%)
Person unable to be located	6 (0.5%)	3 (0.6%)
Police attendance	5 (0.4%)	14 (2.7%)
Patient left site	4 (0.3%)	1 (0.2%)
Absconded (under order)	3 (0.3%)	4 (0.8%)
Security guard injury	3 (0.3%)	1 (0.2%)
Patient injury	2 (0.2%)	0 (0.0%)
Visitor left ward	1 (0.1%)	1 (0.2%)