



# Use of a "secure room" and a security guard in the management of the violent, aggressive or suicidal patient in a rural hospital: a 3-year audit


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**Introduction:** Little has been published on the management of psychiatric crises in rural areas, and little is known of the security needs or use of "secure rooms" in rural hospitals.
**Method:** We conducted a 3-year retrospective chart audit on the use of our secure room/security guard system at a rural hospital in a town of 3500, located 220 km from our psychiatric referral centre.
**Results:** Use of our secure room/security guard system occurred at the rate of 1.1 uses/1000 emergency department visits, with the most common indication being physician perception of risk of patient suicide or self-harm. Concern for staff safety was a factor in 10% of uses. Eighty percent of patients were treated locally, with most being released from the secure room after 2 days or less. Fourteen percent of patients required ultimate transfer to our psychiatric referral centre and 6% to a detoxification centre. The average annual cost of security was $16 259.61.
**Discussion:** A secure room can provide the opportunity for close observation of a potentially self-harming patient, additional security for staff and early warning if a patient flees the hospital. Most admissions were handled locally, obviating the need for transfer to distant psychiatric referral centres. Most patients who were admitted were already known as having a psychiatric illness and 80% of the patients required the use of the secure room/security guard system for less than a 2-night stay, suggesting that most rural mental health crises pass quickly.
**Conclusion:** Most patients admitted to a rural hospital with a mental health crisis can be managed locally if an adequate secure room/security guard system is available.

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**Introduction :** Relativement peu d'articles ont été publiés sur la prise en charge des situations de crise chez les patients psychiatriques en région rurale et on en connaît peu sur les besoins en matière de sécurité ou sur l'emploi des chambres d'isolement dans ce contexte, dans les hôpitaux ruraux.
**Méthode :** Pour une période de trois ans, nous avons procédé à une analyse rétrospective des dossiers sur l'utilisation de la chambre d'isolement et du service de sécurité de notre hôpital rural, situé dans une localité de 3500 habitants, à 220 km de notre centre de référence psychiatrique.
**Résultats :** Nous avons observé un taux d'utilisation de la chambre d'isolement ou du service de sécurité correspondant à 1,1 utilisation par 1000 consultations annuelles au service d'urgence, l'indication la plus courante étant que le médecin percevait un risque de suicide ou d'automutilation chez le patient. L'inquiétude vis-à-vis de la sécurité du personnel a constitué un facteur dans 10 % des cas. On a pu traiter sur place 80 % des patients et la majorité d'entre eux ont pu quitter la chambre d'isolement au bout de 2 jours ou moins ; 14 % des patients ont dû être transférés au centre de référence psychiatrique et 6 %, dans un centre de désintoxication. Le coût annuel moyen des mesures de sécurité a été évalué à 16 259,61 $.
**Discussion :** Une chambre d'isolement permet l'observation étroite des patients sus-





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ceptibles de se faire du mal, constitue une mesure de sécurité additionnelle pour le personnel et permet de donner plus rapidement l'alerte si le patient quitte l'hôpital sans autorisation. La plupart des admissions ont été prises en charge localement, évitant le recours à un transfert vers un centre de référence psychiatrique éloigné. La majeure partie des patients admis étaient déjà connus pour leurs problèmes psychiatrique et 80 % ont passé moins de 2 nuits dans la chambre d'isolement ou sous la surveillance du service de sécurité, ce qui donne à penser que la plupart des crises s'estompent rapidement chez les patients psychiatriques des régions rurales.

**Conclusion :** La majorité des patients psychiatriques en crise admis dans un hôpital rural peuvent être pris en charge localement lorsqu'il existe une chambre d'isolement ou un service de sécurité adéquats.

## INTRODUCTION

Although a recent US survey of 187 American rural health facilities estimated that 9.4% of emergency department (ED) visits were for "some type of mental health problem"[1] and rural-specific protocols for the management of psychiatric emergencies have been published,[2] little is known of the management of mental health crises in rural areas.

In the treatment of the violent, aggressive or suicidal patient, rural hospitals face specific difficulties:

- We lack on-site, trained mental health workers and psychiatrists;
- Patients who are potentially violent, aggressive or suicidal are often cared for in a general medical ward, often with minimal staffing at night and on weekends;
- Rural hospitals often have only a minimal security presence and police response times can be long;
- Distances to psychiatric facilities are long and they may not accept patients off-hours.[3,4]

A 2004 survey of 443 randomly selected US hospitals revealed that 27.8% used "seclusion," most commonly (95.7%) a room within the ED.[5] Apart from an Australian review of 8 patients admitted to a "special care suite for severely disturbed patients" published in 1994,[4] little data on the use of security rooms in rural hospitals has been published. We decided to conduct a 3-year retrospective chart audit on how physicians use the secure room/security guard system at our institution and what the final disposition of the patients was.

## METHODS

### Structure of the secure room

The Centre de Santé de Temiscaming-et-de-Kipawa is a family physician–staffed in- and outpatient facility serving the town of Temiscaming, Que., a pulp and paper town with a catchment area population of 5000. Twenty-four hour emergency service is provided. Only 2 or 3 nurses are present in the building on nights and weekends and they are required to staff the ED as well. There is no permanent security guard on duty. Our designated psychiatric referral centre is Centre Hospitalier Rouyn-Noranda, (CHRN,) a 200-bed general hospital situated 225 km north of the centre. Owing to a shortage of psychiatrists and bed there, referral is often not possible nights or weekends. Locally, we have a psychosocial health team staffed by social workers and intermittently by a psychologist. Drug screening is available at all times. Psychiatric telephone consultation alone, without a request for transfer, is generally not available to us.

Our "secure room" is a stripped-down, ground floor room in our 9-bed short-term medical unit, built in 2002 at a conversion cost of about $2000. In its default setting it contains only a bed (Fig. 1). At the physician's discretion, additional furniture such as chairs and a television can be provided. The entrance door can be locked and there is a window, curtained on the outside, through which the nurse can observe the patient (Fig. 2). Oxygen and monitoring ports have been retained (so the room can also be used as a regular hospital room) but these have been recessed and covered with a Plexiglass lid. The bathroom can be locked to the patient and has no lock on the inside, so that the patient cannot lock him- or herself inside. Use of the secure room and the calling of the security guard must be specifically ordered by the physician.

We contracted with a security firm to provide an unarmed security guard on a 1-hour on-call basis. A desk and chair is provided for the security guard and is usually just outside the door, but can be located inside the room at the discretion of the physician.

### Secure room usage

A log was obtained from the security firm of all billed presences from September 2004 to September 2007, including information on the exact number and time of billed hours. Our patient census was consulted to obtain the names of all admitted patients for those days. Their charts were reviewed to determine which patient was admitted to the secure room. Charts of all those admitted were reviewed to determine demographic data, diagnosis upon admission, the physician's reason for the use of the secure room, medications prescribed and consultations obtained, as well as the final disposition of the patient.

## RESULTS

Over the 3-year survey period a total of 35 115 patients were seen in the ED. There were a total of 39 individual uses of the secure room/security guard system — an average usage of slightly more than once per month or a rate of 1.1 uses/1000 ED visits. Over the 3-year period the hospital contracted for a total of 1618.5 hours of security guard presence (average 539 hr/yr) at a total cost of $48 777.94 (average $16 259.31/yr).

For 3 admissions, totaling 43.5 hours usage, it was not possible to identify the patient from hospital census figures. In the remaining 36 uses, the patient could be identified and the chart reviewed.

Nineteen admissions of male patients were analyzed (median age 40, range 18–82, mean age 42.7 yr) involving 17 different men. Two men were admitted on 2 separate occasions. There were 17 admissions of female patients (median age 28, range 14–45, mean age 31.5 yr) involving 16 patients. One woman was admitted twice.

Admission data appear in Table 1. In terms of the diagnosis upon admission, drug overdoses and depression each accounted for almost one-quarter (23% each) of the admissions. In terms of the immediate indication for security, by far the most common factor cited was the physician's perceived risk of harm to the patient from him- or herself — 23 of 39 admissions (59%) — but concerns for staff safety were cited in 4 of 39 admissions (10%). Just under half of patients, 17 of 36 (47%), were admitted during the day shift and only 5 of 36 (14%) were admitted during the night shift. Defining the "weekend" — a time when staffing is at its lowest — as 1600 Friday to 0800 Monday, 13 of 36 (36%) admissions were classified as weekend admissions.

A psychiatric diagnosis before admission to the secure room was noted in the charts of 25 of 36 patients (75%). Only a small proportion, 6 of 36 admissions (17%), were "involuntary" under Quebec's Mental Health Act. There were no records of physical restraints being applied to any patient, nor of any assaults or threats to staff. To our knowledge, none of the patients admitted have since committed suicide although one has been convicted of homicide.

In terms of pharmacotherapy, 20 of 36 patients (56%) were prescribed tranquilizers, sedatives/hypnotics or antidpressants, a figure in line with the 69.9% reported as receiving "chemical restraint" in Zun and Downey's[5] survey of 443 US emergency "seclusion" rooms. The most commonly used drug was lorazepam, given alone to 8 of 36 patients and in combination with haloperidol to 4 of 36, in accordance with rural guidelines.[3] In total, a benzodiazepine was prescribed to all patients who received psychiatric drugs, save for 1 patient who was prescribed citalopram alone. Two other patients were prescribed other antidepressants

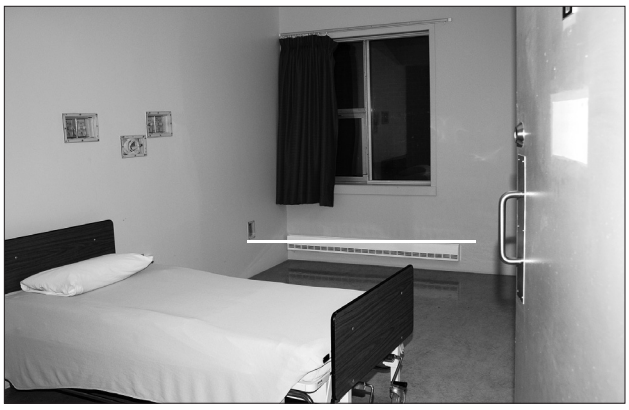


**Fig. 1. General view of the secure room in its "default setting." The bathroom door is on the right. Note the recessed monitoring and oxygen fixtures on the left.**



**Fig. 2. Nurse's view of the patient through the exterior-curtained window.**

along with a benzodiazepine. Seven patients (19%) received a major tranquilizer.

Psychosocial service consultations and drug screening were obtained in 23 of 36 (63%) and 17 of 36 (47%) admissions, respectively.

In terms of length-of-stay and final disposition, 30 of 36 (83%) of admitted patients were kept 2 nights or fewer; of these, 25 (83%) were discharged directly home. Ultimately, only a total of 5 of 36 (14%) of admissions were subsequently transferred to our referral psychiatry institute (CHRN) and 2 more were transferred to detoxification centres (6%). Thus, overall, a total of 29/36 (81%) admitted patients were discharged directly home.

## DISCUSSION

The use of a "secure room" or "seclusion" is defined as "the confinement of a patient to a defined area for a given amount of time." Four types of "seclusion" have been defined:[5] 1) placing the patient in a locked room; 2) placing a patient in a room with the door physically held shut; 3) placing the patient in a room where free movement is inhibited; and 4) separating a patient from the group. Although Muralidharan and Fenton[6] reported in 2006 that there were no randomized studies supporting the use of "non-pharmacological methods for the containment of violence or self harm in patients with serious mental illness," our stated goals in the construction of our secure room and engagement of a security guard included the following:

1) To provide for close, one-on-one observation of the patient in a room constructed so that the potential of the patient to harm him- or herself has been minimized;
2) To provide additional security for staff and hospital during hours when staffing is minimal;
3) To provide early warning if a patient flees the hospital.

Our audit showed that the most common indication for the physicians' use of the secure room was concern over the patient's potential for self-harm. Concerns for staff security were mentioned in 10% of admissions. Drug abuse — as opposed to an acute overdose of prescribed drugs — accounted for a smaller proportion. A small Australian review showed that 5 of 8 patients admitted to their "special care suite" were schizophrenic.[4] Only 3 of 36 (8%) patients in our audit had such a diagnosis and an additional patient was "psychosis, nonspecified." A high proportion (75%) of patients were already known to have a psychiatric disorder before their admission.

Eighty percent of admissions could be handled purely locally, obviating the need to refer to another, distant facility. In only 5 out of 36 (14%) admissions did the patient ultimately require referral to a larger hospital with a psychiatry department, and an additional 2 (6%) needed referral to a detoxification unit. Almost all admissions were for 2 nights or less, suggesting that a high proportion of rural mental health crises will pass in less than 2 days and — if adequate physical plant and security presences are available — most patients can be treated locally. We urge rural hospitals to consider constructing such a "secure room" and to contract with a security firm.

Weaknesses of this type of study include the retrospective nature of collected data: only chart-recorded facts could be used for analysis. Accuracy of the psychiatric diagnoses cannot be substantiated

**Table 1. Admission data**

| Data | No. of patients | | |
|---|---|---|---|
| | Male | Female | Total |
| Admission diagnosis | | | |
| Drug overdose | 3 | 6 | 9 |
| Depression | 5 | 4 | 9 |
| Schizophrenia | 2 | 1 | 3 |
| Cocaine use | — | 3 | 3 |
| Adjustment disorder | 2 | — | 2 |
| Alcohol or drug withdrawal | 2 | — | 2 |
| Alcohol intoxication | 1 | — | 1 |
| "Speed" use | — | 1 | 1 |
| Drug abuse, nonspecified | — | 1 | 1 |
| Psychosis, nonspecified | — | 1 | 1 |
| Alcohol intoxication or head trauma | 1 | — | 1 |
| Personality disorder | 1 | — | 1 |
| Head trauma | 1 | — | 1 |
| Nonspecified | 1 | — | 1 |
| Indication for security | | | |
| Risk of suicide or self-harm | 10 | 13 | 23 |
| Agitation or aggression | 4 | 1 | 5 |
| Concern for staff safety | 2 | 2 | 4 |
| Withdrawal | 1 | — | 1 |
| Nonspecified | 2 | 1 | 3 |
| Shift of admission | | | |
| Day, 0800–1600 | 9 | 8 | 17 |
| Evening, 1600–2400 | 8 | 6 | 14 |
| Night, 2400–0800 | 2 | 3 | 5 |
| "Weekend," Fri. 1600 to Mon. 0800 | 7 | 6 | 13 |
| Psychosocial services consult | 10 | 13 | 23 |
| Drug screen performed | 7 | 10 | 17 |

and, although suicide or self-harm risk was the most common immediate indication for use of the secure room, it was not possible to quantify the actual suicide or self-harm risks of the patients to any objective degree. We intend this to be a focus of a larger, multicentre study. Additionally, our study could only assess patients for whom the security guard was called, and cases in which only the security room was used and no security guard was called would not have been identified.

## CONCLUSION

Our study revealed that our secure room/security guard system was used slightly more often than once a month at a rate of 1.1 uses/1000 ED visits over a 3-year period. The average annual security cost to the institution was $16 259.61. The most common indication by far was the physician's perceived risk of patient suicide or self-harm, although security for staff was a factor in 10% of admissions. Most patients required a stay of 2 nights or fewer, the crisis presumably over, and 80% of patients were managed purely locally. Only 14% required ultimate referral to a psychiatric hospital and an additional 6% required referral to a detoxification unit. We conclude that most patients presenting with a mental health crisis to a rural hospital can be managed locally if an adequate "secure room" and security guard system are available.

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**Competing interests:** None declared.

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