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published in
Journal of Psychiatric Intensive Care
2005

DOI (link to publisher)
10.1017/S1742646407000337

document version
Publisher's PDF, also known as Version of record

Journal of Psychiatric Intensive Care

Journal of Psychiatric Intensive Care
Vol.2 No.2:84–89
doi: 10.1017/S1742646407000337

Original Article

Psychiatric emergency services in Amsterdam: experience of setting up a temporary admissions unit to manage acute admissions in a metropolitan area

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Abstract

Problems in the acute sector of psychiatric care are not unique to the Netherlands and at an international level appear to be linked to problems that are significant for big cities. The search for an "acute bed" had become more difficult and patients were being placed and transported through the whole country. The three mental health care institutions in Amsterdam joined forces and opened a gateway facility in order to confront the pressure on admissions. The objective of this facility was to create a buffer for the relief of acute compulsory admissions and thus reduce the period that patients had to stay in police cells and decrease the number of placements outside the Amsterdam region.

In this article the goals, patient groups and achievements of this interim facility, called the Temporary Admission Unit (TOA), are described.

The TOA has proved to be able to fulfil its promise to function as a buffer towards the secure admission units in Amsterdam. For a small group of patients (13%) a short admission period on the TOA is sufficient and they can be discharged immediately. The average occupancy rate of the beds of 5 (out of 8 beds) means that the TOA can usually guarantee availability of beds for acute admissions. Between 2000 and 2002 the number of guest placements outside Amsterdam has drastically lowered, along with a gradual rise in the number of compulsory admissions. Finally, the waiting time in the police stations has been diminished considerably.

The advantages of the TOA are clear. Expensive (nocturnal) ambulance transport can be avoided. The stay in the police cell is reduced and the patient arrives in a facility where psychiatric care is available with greater speed. Contact with a regular therapist and therefore continuity of care guarantees a better situation than when the patient is admitted in a distant facility. The same holds good for family contacts.

Keywords

Compulsory admission; PICU; gateway

INTRODUCTION

Over the past decade the Dutch media has frequently been critical of problems and delays in admitting people with acute mental illness to hospital. The closure of big psychiatric institutions and the reorganisation of services into small community oriented hospitals has had the disadvantage of reducing "intensive care" (locked) bed capacity. In addition, over a ten year period the number of compulsory admissions in Amsterdam based on a legal order (IBS, provisional detention order) rose from 180 in 1992 to 612 in 2002 (Post et al., 2004).

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In the Netherlands it was common practice for the police to take mentally disordered people found in a public place and in need of care or control, to a police station where a psychiatrist would make an assessment (Querido, 1968; Jenner et al., 1999). More and more often, disturbed people suffering from mental illness were having a prolonged period of detention in the cells whilst awaiting psychiatric assessment.

When an admission to a psychiatric hospital was needed, it could take over twelve hours to arrange. Under the slogan "no disturbed persons in the cell" the police vehemently protested about this state of affairs. In the end, summary proceedings were even used to force an admission to hospital.

In Amsterdam there are three psychiatric institutions, each with their own catchment area. The three institutions have five locked wards with a total of 80 beds and 16 seclusion units for a population of approximately 780,000 citizens. Due to the growing number of compulsory admissions, the psychiatric hospitals in Amsterdam, like those of the other Dutch cities, experienced increasing difficulty placing patients in their own locality. The search for an "acute bed" became more difficult and patients were placed in hospitals throughout the country. This led to admissions far from home, long and expensive ambulance drives and a reduction of continuity in care and treatment. In addition, over time, there was less and less willingness in the rest of the Netherlands to accept admissions from Amsterdam. The problem of a lack of suitable local beds was particularly pressing in Amsterdam because of the large number of compulsory admissions there (10% of the total for the country). These problems, and ultimately an incident during which a psychiatric patient died in a police cell, were enough to kindle the flame of protest.

The difficulties providing acute psychiatric care and managing admissions to limited numbers of beds, particularly in cities, are not unique to the Netherlands but are international problems (Catalano et al., 2003). Psychiatric "first aid" facilities have been set up elsewhere to tackle such problems (Brooks et al., 1992; Allen, 1999). A psychiatric "first aid" facility can only work if there is access to inpatient beds (Kleinschmidt & Sanders, 1997).

The three mental health care institutions in Amsterdam joined forces and opened an interim facility in order to manage the pressure on admissions. The objective of this facility was to create a buffer for acute compulsory admissions, reduce the period that patients had to stay in police cells and decrease the number of placements outside the Amsterdam region. An additional target was to diminish pressure on the restraint and seclusion capacity of the closed wards.

In August 2001 the Temporary Admission Unit (TOA) was opened as a temporary solution. The word "temporary" has two aspects: patients stay temporarily in the TOA and as soon as possible are transferred to one of the closed wards. In addition the location is temporary, as in 2007 the unit will be integrated into a new hospital (one of the psychiatric hospitals participating in the TOA) where it will be combined with the citywide Psychiatric Emergency Unit.

Presently, however, the unit is situated in the forensic clinic of one of the participating institutions. The security level is higher than a normal closed ward and it is organised like a PICU (Beer et al., 2001; Proctor, 2001). It consists of eight secure rooms and one seclusion room.[1] A secure room is a stripped room with a mattress on the floor, special clothing and bed linen, to which washing and toilet facilities and a "normal" bed can be added. As the unit is situated in a forensic clinic it is possible to use the medical infrastructure present, including laboratory facilities and medication. In emergency situations, for example when an aggressive patient requires additional staff, the emergency-response team of the forensic clinic can be called on for assistance.

The nursing staff, employees of two mental health care institutions, work in three day shifts, three evening shifts and two night shifts. Admissions take place round the clock and are taken care of by the assistant physicians and psychiatrists of the Psychiatric Emergency Service. This allows the Psychiatric Emergency Service to control the bed usage and to undertake a provisional screening of the patients who are admitted. The indication

[1]If there is more seclusion capacity necessary, seclusion rooms of annexing units can be used.

for admission is simple: any patient with a legal order who is stranded or threatens to be stranded at a police station can be admitted into the TOA.

In this article we report on the goals, the patient groups and the achievements of this interim facility, the TOA. The aim was to develop an understanding of patient characteristics and to evaluate the performance of the unit.

METHODS

Following the opening of the TOA in August 2001, data on patients and their treatment were systematically collected. The registration and data collection system was set up by a psychiatrist attached to the TOA (WM) who, together with the chief staff nurse, was responsible for the collection of data and entry into a computerised data file (MS Access). Socio-demographic and psychiatric data came primarily from information provided by the referrer, community mental health practitioner or from an admission medical report. Data about the course of the admission were collected prospectively. Alleged use of alcohol or drugs was confirmed by urine tests. The admission diagnosis was taken from the psychiatric disorder stated on the admitting medical report. The diagnostic classification of GGZ Nederland (the national umbrella organisation of Dutch mental health care institutions) which is based on an aggregation of DSM IV classifications was used. We report on one year's data from 1 January 2002 till 1 January 2003.

In order to judge if the TOA has achieved its objective we studied the number of out of area placements in relation to the number of compulsory admissions between 2000 and 2002.

Data about numbers of out of area placements and compulsory admissions (IBS) in the period 2000–2002 came from the Bureau for Statistics of the Mental Health Organization Amsterdam.

Furthermore, we compared the average waiting time in the police stations between the psychiatric consultation and transport to a hospital from 2000 to 2003. Data on waiting times was obtained from the GG&GD (the municipal health department) in Amsterdam.

SPSS (Statistical Package for the Social Sciences) was used to prepare frequency counts on patient and treatment variables.

RESULTS

In the period between January 2002 and January 2003 the TOA admitted 394 patients (Table 1).

The characteristics of the patient group reflect the problems of a metropolis. The prototypical

Table 1. *Patient characteristics TOA admissions 2002 (n=394)*

Patient characteristics		n (%)	M (SD)
Sex	Male	258 (66)	
	Female	136 (34)	
Age			37.4 (11.9)
Coming from	Home	25 (6)	
	Police station	289 (73)	
	Somatic hospital	20 (5)	
	Psychiatric hospital	28 (7)	
	Other	27 (7)	
	Unknown	4 (1)	
Axis I classification on admission	Cognition/organic disorder	3 (1)	
	Disorder caused by alcohol/drugs	12 (3)	
	Schizophrenia/schizoid	100 (25)	
	Psychosis NOS a.o. psychosis	179 (45)	
	Mood disorders	46 (12)	
	Anxiety or stress linked disorder	3 (1)	
	Behavioural disorder	2 (0.5)	
	No Axis I Diagnosis	1 (0.5)	
	Not mentioned	18 (5)	
	Postponed	30 (7)	
Axis II classification on admission	Personality disorder	28 (7)	
	Mentally impaired	9 (2)	
	Postponed	310 (79)	
	None	23 (6)	
	Unknown	24 (6)	
Legal status	Forced admission	387 (98)	
	Voluntarily	7 (2)	
Previous psychiatric treatment	Yes	217 (55)	
	No	54 (14)	
	Unknown	123 (31)	
Abuse of substances	Not tested or negative	215 (55)	
	Tested or positive	179 (45)	
Substances[a]	Alcohol	51 (13)	
	Cannabis	108 (27)	
	Cocaine	44 (12)	
	Ecstasy	8 (2)	
	Other substances	11 (3)	

[a]n > 179 as a result of combinations of abuse of substances

Table 2. Admission dates TOA 2002 (n=394)

Admission data		n (%)	M (SD)
Number of admissions		394 (100)	
Number of admission days		1,861	
Average occupancy rate of beds			5.1
Duration of stay (hours)	<48	120 (31)	106 (83.6)
	48–96	101 (26)	
	97–144	80 (20)	
	145–192	35 (9)	
	>192	58 (15)	
Location after discharge from TOA	Institution for mental health care	312 (79)	
	Other institution	21 (5)	
	Repatriation	5 (1)	
	Discharge	51 (13)	
	Unknown	5 (2)	

patient is a male (66%) of about 37 years old, admitted compulsorily (98%) from a police station (73%). The most frequent diagnosis is a psychotic disorder (70%); not otherwise specified (45%) or schizophrenia (25%). Many patients are familiar with psychiatric treatment (55%). Co-morbid abuse of substances is frequent (45%) and is mostly cannabis, alcohol or a combination (Table 2).

The average bed occupancy rate was 5.1 (8 beds available) with 394 admissions and 1,861 admission days. For 31% a transfer took place within 48 hours (weekends included); the average length of stay at the TOA was 106 hours. Long-term stay was mainly due to waiting times for admission to follow-up institutions (57%).

After discharge, 79% were taken over by the mental health care institution in Amsterdam that was responsible for their care. The mean length of admission to a closed ward in Amsterdam is 32 days. It was not possible to find out if the mean length of stay on a closed ward became shorter after opening the TOA. Before opening the TOA the shortest out of area admissions were a week in duration. As a result of: return to the region of origin (5%), repatriation (1%) and immediate discharge (13%), 20% of the patients who had been in the TOA were not transferred to admission units of the Amsterdam mental health care institutions (Table 3).

Between 2000 and 2002 the number of acute compulsory admissions (IBS) in Amsterdam rose from 521 to 612, an increase of 18%. The number of admissions with a provisional detention order (IBS) outside Amsterdam (guest placements) decreased at the same time from 136 to 49, a reduction of 64%. Over three years the percentage of admissions requiring out of area placements after IBS decreased from 26% to 8%. The percentage of compulsory admissions in Amsterdam to the TOA rose in 2002 to over 50% (Table 4).[2]

When comparing the number of acute compulsory admissions in Amsterdam with those in the Netherlands (including Amsterdam) it is possible to see that there are only minor differences. From 2002 to 2003 we see a decrease in Amsterdam and an increase in the Netherlands. It is not possible to say whether the TOA produces an increase in compulsory admissions due to increased capacity.

Finally, the average waiting time in police stations decreased considerably. Registration figures show that the time between the arrival of the emergency services at the police station and the call for an ambulance was reduced by 42%. This waiting period encompasses the psychiatric consultation, the request for and issue of a compulsory measure (IBS) and the finding of a place to have the patient admitted. In four years this waiting period declined from 4.06 hours in 2000 and 4.55 hours in 2001 to 3.43 hours in 2002 and 2.35 hours in 2003.

DISCUSSION

The figures that are presented here show that the TOA achieved its objectives for the major part. The unit has proved to be able to fulfil its function as a buffer for the secure admission units in Amsterdam. For a small group of patients a short admission period to the TOA is sufficient and they can be discharged immediately (13%). They are mostly patients with syndromes induced by drugs who show rapid improvement. Together with repatriated tourists and patients who are transferred to locations outside the region, 20% need

[2] TOA opened its doors on 1 August 2001 and was only operational for five months in 2001.

Table 3. IBS admissions in and outside Amsterdam and to the TOA (2000–2002)

	IBS The Netherlands	IBS Amsterdam	Admissions outside Amsterdam (%)	Admissions in Amsterdam (%)	Admissions to TOA (%)
2000	6,346	521	136 (26)	385 (74)	0 (00)
2001	6,826	529	141 (27)	388 (73)	99 (19)
2002	6,985	612	49 (8)	563 (92)	314 (51)

Table 4. IBS admissions in the Netherlands and in Amsterdam

	The Netherlands	Amsterdam
1999	6,450	508
2000	6,346	521
2001	6,826	529
2002	6,985	612
2003	7,039	572

no further treatment in the Amsterdam mental health care institutions. The average stay in the TOA was 106 hours. Before opening the TOA, patients who were placed in an out of area hospital were there for at least seven days before returning to Amsterdam to a hospital near their home.

The average occupancy rate of the beds of 5.1 (out of 8 beds) means that the TOA can usually guarantee availability of beds for acute admissions. Between 2000 and 2002 the number of out of area placements outside Amsterdam was drastically lowered, alongside a gradual rise in the number of compulsory admissions. The Alliance of Health Care Institutions in the Amsterdam Region (SIGRA, 2002) attributes the decrease of the number of out of area placements to the establishment of the TOA. Finally, the waiting time in the police stations has been considerably reduced.

The advantages of the TOA are clear. Expensive (nocturnal) ambulance transport can be avoided. The waiting time in the police cell is reduced and the patient arrives in a facility where psychiatric care is available with greater speed. Contact with a regular therapist and therefore continuity of care guarantees a much better situation than if the patient were admitted to a distant facility in another part of the country. The same holds true for family contacts.

Critics may say that the TOA could have triggered an increase in the number of compulsory orders that have been issued. According to the rule "supply creates demand" it can be stated that with the availability of secure beds, the probability of compulsory admissions also increases. In line with this the number of compulsory admissions in Amsterdam rose between 2000 and 2002 by 18%. In the year after, however, it decreased. Compared with the numbers of compulsory orders in the Netherlands, few differences are seen. It is difficult to compare the numbers with other European countries because data is sparse and also the law that defines the criteria for compulsory admission differs from country to country (Salize & Dressing, 2004).

The TOA, as a gateway, together with the five closed wards in Amsterdam can be seen as a way of organising small inpatient psychiatric facilities within a city. It is possible to cope with the (increasing) acute compulsory admissions and at the same time transfer patients quickly to a hospital near their home. After establishing the TOA the three mental health institutes together with the municipal health department (GG&GD) and Jellinek (addiction centre) organised one Psychiatric Emergency Service with emergency rooms. Lastly, the press image of emergency psychiatric care in Amsterdam has, for the first time, changed in a positive way in the last few years.

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