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Hospital referral of detainees during police custody in Amsterdam, The Netherlands

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ABSTRACT

This study describes how many detainees have been referred to emergency departments for further evaluation or emergency care while in police custody in Amsterdam (years 2012/2013). It provides insights into the diagnoses assigned by forensic doctors and hospital specialists and the appropriateness of the referrals. We made use of the electronic registration system of the Forensic Medicine Department of the Public Health Service Amsterdam. This department is in charge of the medical care for detainees in the Amsterdam region. Hospital diagnoses were obtained through collaboration with several Amsterdam-based hospitals. According to our results, in 1.5% of all consultations performed, the detainee was referred to hospital. The most frequent reasons for referral were injuries (66%), intoxication/withdrawal (11%) and cardiac problems (7%). In 18% of all referrals, hospital admission (defined as at least one night in the hospital) was the consequence. After review of hospital files, the indication for referral as stated by the forensic physician was confirmed in 77% of all cases. A minority of referrals was considered unnecessary (7%). The identified cases allow for a discussion of cases of over-referral. Future research should focus on the problem of under-referral and associated health risks.

1. Introduction

Annually, almost 40.000 persons are arrested by the Amsterdam police force. Many are addicted to drugs, mentally ill, suicidal, aggressive or intoxicated.[1–4] Most of them are suspects of crime, but some persons are taken to the police station because they are endangering themselves or others by their behavior, e.g. psychiatric patients in crisis. In the Amsterdam region, the medical care at the police station is provided by a primary care team consisting of forensic physicians and nurses employed by the Amsterdam Public Health Service. The catchment area of the area covers the city of Amsterdam and a number of neighboring communities (Amstelveen, Uithoorn, Ouder-Amstel, Diemen, Aalsmeer, Beemster, Edam-Volendam, Landsmeer, Oostzaan, Purmerend, Waterland, Wormerland, Zaanstad and Zeevang). Almost 30% of all police detainees in Amsterdam are seen by a forensic doctor or forensic nurse.[2] Care is provided at police stations and at cell blocks. At police stations, a forensic doctor can be called by the police 24/7. In contrast to police stations, the cell blocks are especially equipped for overnight stays. At these sites, a forensic nurse is present during day-time. The nurse is in charge of delivering the 'first contact care' and refers to the forensic doctor if necessary. At night-time, a forensic doctor is on duty. In contrast to Dutch prisons, there is no standard medical intake of all incoming police detainees. Instead, medical assessment may follow at the detainees' request or at the request of the police. Potential reasons for hospital referral are injury, an impaired level of consciousness, (suspected) drug poisoning, behavioral disturbance and any other medical condition causing serious concern. In case of somatic health problems, these patients will be referred to a hospital for further evaluation or

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treatment. In case of psychiatric crisis, psychiatric emergency care will be organized.

This study was performed to shed more light on hospital referrals. In the literature on detainees of the police, information on hospital referrals is scarce. In total, we identified five studies reporting information on this topic. Payne-James et al. describe a sample of 150 detainees who required documentation of alleged assault and associated injuries.[5] 23% of the sample required hospital transfer. Greenberg et al. performed research among mentally disordered detainees of which 32% were admitted to hospital.[6] These detainees were held by the police in the context of legislation that gives police the power to remove these persons from a public place to a place of safety. Carter et al. report a hospital transfer rate of 1.6%, with injury, overdose and poisoning, chest pain and collapse as most frequent reasons for referral.[7] In a study performed by Heide et al.,[8] 56 out of 1017 persons who had been examined by a doctor were referred to hospital (5.5%). Beaufrère et al. studied differences between older and younger detainees, demonstrating that older detainees (>60 years) were more often referred to hospital (3% versus 0.7%)[9]

The current study adds to this literature by assessing whether referrals made by health care staff are appropriate. In primary care, there is a long-lasting discussion on when a referral to hospital care is appropriate.[10,11] Whereas under-referral may cause damage to the patient, over-referral may lead to unnecessary costs. We therefore attempted to assess whether or not referral was appropriate by reviewing the medical files of referred arrestees.

Altogether, the current research attempts to provide answers to the following questions:

1) What percentage of all consultations delivered by the primary care team of the forensic medical department result in hospital referral?
2) What are the indications associated with referral?
3) What percentage of referrals leads to hospital admission?
4) How often is the indication for referral confirmed by hospital files?
5) What percentage of referrals can be considered inappropriate?

2. Methods

In principle, when a detainee is in need of hospital treatment, three pathways are possible: (1) The forensic physician or nurse may refer to a hospital, (2) if mentally disordered, the patient is examined by a psychiatric nurse and referred to psychiatric emergency care, or (3) an ambulance is called by the police, without health care staff being involved in the decision. In this study, we attempted to establish the number of hospital referrals initiated by forensic physicians and nurses (years 2012/2013). Information on the other two pathways was not available. For this study, we made use of the electronic registration of the Forensic Medical Department of the Amsterdam Public Health Service. In total, we identified n = 400 referrals initiated by forensic physicians and nurses. In order to obtain more information on these referrals, we asked all emergency departments in the catchment area of the service to provide us with the diagnosis and treatment of referred patients. Seven out of eight hospitals agreed to participate in the study.

In 6 out of 400 cases, it was impossible to trace the patients in the hospital registrations because the name and/or date of birth of the patients was lacking. For the remaining 394 referrals, we were able to obtain hospital information in 244 cases (62%). Reasons for a lack of hospital information were diverse. Partly, it was unclear from our registration to which hospital the patient had been transferred (n = 79). Some patients were referred to non-participating hospitals or to hospitals outside the region (n = 13). In another 56 cases, no information was available at the hospital, although it was registered as receiving hospital. Possible explanations are a wrong date of birth, misspelled patient names, a missing match between the referral date in our registration and the date according to the hospital consultation registration.

After the hospital data was gathered, two experienced forensic physicians assessed whether the referral indication was confirmed (yes/no) and whether or not the referral was appropriate. The physicians assessed the referral independently from each other, based on their individual training and experience. In case of disagreement, consensus was established by discussing the case together. The appropriateness of the referral was performed using a 5-point scale (5 = referral very appropriate; 1 = referral inappropriate). For the purpose of data analysis, we defined referrals scored below 4 as unnecessary. This cut-off was chosen pragmatically to allow a further examination of a group of potential cases of over-referral. For this category of referrals, the forensic physicians were asked to indicate why they assigned a low score.

3. Results

In total, during the study period (years 2012 and 2013), forensic physicians referred 400 times to a hospital (psychiatric emergency care excluded). This constitutes 1.5% of all consultations delivered to arrestees of the police (including both telephonic and face-to-face consultations) and results from dividing the number of referrals in 2012 and 2013 (n = 400) by the number of consultations in 2012 and 2013 (n = 26,875). Since hospital information was not available for all referrals, the final study sample comprised 244 referrals concerning 243 patients. The patients were predominantly male (92%) and aged 35 years on average (SD = 13.2).

In 187 cases (77%), the referral indication as stated by the forensic physician was confirmed by the review of hospital data. In the other 57 cases, the referral indication was not fully confirmed. In 44 cases, hospital admission followed after referral, defined as at least one night in the hospital (18% of all referrals). The reasons for referral are listed in Table 1. The most frequent reasons for referral were injuries (66%), intoxication (11%) and cardiac problems (7%). In the case of injuries, the indication was confirmed in 77%, in the case of intoxication in 85% of cases.

As injuries were the most frequent reason for hospital referral, we further studied the characteristics of these referrals (Table 2). Injuries requiring referral were most often located at the extremities (including arms, legs and knees), followed by injuries to the head and/or face (28%). We also examined whether it was made notice of alcohol or drug intoxication in the medical file, demonstrating that in 16% of all injury-related referrals alcohol played a

Table 1
Indications for hospital referral during police custody.

	N	% of all indications	Indication confirmed	
			n	%
Injury	160	65.6	123	76.9
Acute intoxication/withdrawal	27	11.1	23	85.2
Cardiac	16	6.6	11	68.8
Neurological	15	6.1	14	93.3
Gastrointestinal	11	4.5	5	45.5
Diabetes	4	1.6	4	100
Lung	3	1.2	2	66.7
Urinary	3	1.2	2	66.7
Tuberculosis	3	1.2	2	66.7
Siccelcel crisis	2	0.8	1	50.0
Total	244	100		

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