# FORENSIC PSYCHIATRY – SCENARIO IN THE LARGEST SECURITY WARD IN PORTUGAL

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#### ABSTRACT

Forensic Psychiatry is defined as the Psychiatry subspecialty in which the clinical and scientific knowledge is applied to legal aspects, both with regard to Civil and Criminal Law. Nowadays, the largest security ward is in Coimbra, at the University Hospital. It covers 110 patients, 90 males and 20 females. The aim of the security measure, in accordance with the penal code, is the protection of legal assets and the psychosocial rehabilitation. In our sample, the main most frequent diagnosis was schizophrenia (37.8%). Moderate intellectual disability (23.4%) and mild intellectual disability (14.4%) were the second and third most frequent diagnosis. The unlawful acts that generated the prevalent security measure were in first place domestic violence (19,8%) followed by attempted murder (16,2%) and theft (14,5%). The elaboration of a therapeutic and rehabilitation plan is essential and its aim is to diminish the person's dangerousness. It is fundamental to think of the safety ward as a health production space and not as a place of mere disease management or "dangerous states", thus trying to solve the patient's problems.

**Keywords**: Intellectual developmental disorder; Forensic care; Schizophrenia; Pharmacological treatment pathways.

#### INTRODUCTION

Forensic Psychiatry is defined as the Psychiatry subspecialty in which the clinical and scientific knowledge is applied to legal aspects, both with regard to Civil and Criminal Law [1].

One of the most interesting issues in this relationship between Law and Psychiatry is the problem of the imputability or unimputability [1].

In the context of Forensic Psychiatry, specifically in the criminal area, the autonomy and adaptability skills are especially relevant, either for the understanding of the unlawfulness of a certain behaviour, or for the self-determination ability in the light of this same understanding, being variables relevant for the medico-legal assumptions of (un)imputability. For that, it is necessary that the individual is free (autonomous in terms of reasoning and management of his/her individuality); identifies with the normative and ethical values shared in their culture and decides in accordance with the control over the most primitive animal instincts [2].

The imputability consists in the obligation of the agent to respond to the acts he performed. However, when it is demonstrated that, at the date of the commission of the

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offense, the agent had, because of severe psychic anomaly, transitory or not, his capacities of understanding or self-determination impaired or diminished, we are dealing with article 20 of the Penal Code [3].

The concept of dangerousness is reflected in the probability that the agent, because of psychic anomaly, recurs in the practice of criminal acts. However, this is not in itself a sufficient legal condition to justify internment in an establishment to comply with a security measure. There must be a high probability that the agent relapses into acts of the same nature so that he can be considered dangerous unimputable [3].

In Portugal, the institutionalization of mental disease started in 1848 with the opening of the Rilhafoles Hospital [2]. Nowadays, the largest security ward is in Coimbra, at the University Hospital. It covers 110 patients, 90 males and 20 females. These patients comply with security measures as dangerous unimputable who committed an unlawful act, but who, because of psychiatric reasons, cannot answer criminally for that act, being thus considered criminally irresponsible – unimputable and also with high likelihood of recurring in similar acts – dangerous [2].

The dangerousness, from a legal point of view, overrides the guilt as a factor to take into account for the time of the security measure in establishment of healing and security [3].

The aim of the security measure, in accordance with the Portuguese penal code, is the protection of legal assets and the psychosocial rehabilitation. The application of penalties and security measures aims to protect legal assets and reintegrate the agent into society. The penalty can never exceed the measure of guilt. The security measure can only be applied if the severity of the fact is proportionate to the danger of the agent. It cannot be perpetual or of unlimited duration. It also cannot exceed the maximum limit of penal framework to which the act practiced corresponds. It can finish when the court considers the state of criminal dangerousness which was in its origin has ceased [3,6].

For serious crimes, in which the penal framework is more than 5 years, the security measure lasts at least 3 years.

After the beginning of the measure, a revision of the same must take place every two years. Out of this period, the clinical-behavioural revaluation of the admitted to the hospital, the expert reappraisal or the character revaluation of the same can be carried out whenever the judge considers appropriate [4,5].

In case the evaluation carried out by the team responsible for the unimputable concludes there is no risk / dangerousness, the admitted is set free for trial.

To characterize the hospitalized population complying with security measures in the largest security ward in Portugal concerning: sociodemographic aspects; crimes and duration of security measures; therapeutic protocols and reflect on psychosocial rehabilitation of these patients to ensure their reintegration into the community.

#### MATERIALS AND METHODS

## Sample

A retrospective study was performed in the Forensic Department of a university hospital. All inpatients, between January 2018 and March 2018 were eligible to enter the study. The final sample consisted of 111 patients.

## Statistical analysis

For this investigation digital and paper medical records of the patients were analysed. The data were entered on an anonymized database. The statistical analysis was performed using PASW Statistics 22.0 software.

## RESULTS

The final sample included 111 subjects with an average of 45.81 years old ranging from 21 to 81 years old. 91% of patients were younger than 65 years old.

The average of women was 46.19 years old with a minimum of 24 and a maximum of 71 years old. The average of men patients was 45.52 years old with a minimum of 21 and a maximum of 81 years old.

With respect to gender, there was a predominance of males (74,1% - 83 patients) in relation to the female gender (24.1% - 27 patients).

The unlawful acts that generated the prevalent security measure were in first place domestic violence (19,8%) followed by attempted murder (16,2%) and theft (14,5%) (table 1).

Table 1 - Summary of the unlawful act frequency

Unlawful act	Frequency	Percent
Threat	4	3,6
Aggravated threat	4	3,6
Sexual coercion	1	0,9
Driving Without a Licence	1	0,9
Qualified damage	4	3,6
Attempted murder	18	16,2
Murder	11	9,9
Forest fire	8	7,2
Criminal offense	10	9,0
Possession or Use of a Prohibited Weapon	6	5,4
Resistance to justice	1	0,9
Theft	16	14,5
Qualified kidnap	1	0,9
Domestic Violence	22	19,8
Rape	4	3,6
Total	111	100,0

Concerning dual diagnosis disorders the results were: 40.5% of the sample had dual diagnosis disorders (45 patients); in females only 4 patients had a dual diagnosis (14.8%) while 40 male patients had this diagnosis (48.2%).

Moreover, 74.1% of women were complying the security measure for one act committed (20 women). In men, a higher percentage of re-occurred crimes was found, corresponding to 30.1%. Overall, 32 patients had committed more than one crime (28.8%).

On average, the minimum time of sentence was 2.66 years (ranging from 1 year to 12 years). The maximum time was 8.95 years on average (ranging from 1 to 25 years).

In women, the maximum penalty time was 6.52 years on average (ranging from 1 to 16 years) while in men the time was 9.78 years (ranging from 1 to 25 years).

The main most frequent diagnosis was schizophrenia (37.8%). Moderate intellectual disability (23.4%) and mild intellectual disability (14.4%) were the second and third most frequent diagnosis. Considering the group Schizophrenia and Intellectual disability they account for 77.4% of diagnosis (table 2).

Table 2 - Main diagnosis by DSM - 5 of the total sample

Main diagnosis by DSM – 5	Number of patients	%
294.11 Frontotemporal disease	2	1,8
295.70 Schizoaffective disorder, bipolar type	4	3,6
295.90 Schizophrenia	42	37,8
296.44 Current or most recent episode manic, with psychotic features	2	1,8
297.1 Delusional disorder	10	9,0
301.7 Antisocial personality disorder	3	2,7
303.90 Alcohol use disorder, severe	3	2,7
304.90 Other (or unknown) substance use disorder, severe	1	,9
317 Intellectual disability (intellectual developmental disorder), mild	16	14,4
318.0 Intellectual disability (intellectual developmental disorder), moderate	26	23,4
318.1 Intellectual disability (intellectual developmental disorder), severe	2	1,8
Total	111	100,0

In the female gender, the main diagnosis was mild intellectual disability (29,6%) (table 3) and in male gender it was Schizophrenia (table 4).

Table 3 - Main diagnosis by DSM – 5 of the female gender sample

Diagnosis by DSM – 5 (female gender)	Number of patients	%
295.70 Schizoaffective disorder, Bipolar type	3	11,1
295.90 Schizophrenia	4	14,8
296.44 Bipolar I disorder, Current or most recent episode manic, With psychotic features	1	3,7
297.1 Delusional disorder	4	14,8
301.7 Antisocial personality disorder	1	3,7
304.90 Other (or unknown) substance use disorder, Severe	1	3,7
317 Intellectual disability (intellectual developmental disorder), Mild	8	29,6
318.0 Intellectual disability (intellectual developmental disorder), Moderate	5	18,5
Total	27	100,0

Table 4 - Main diagnosis by DSM – 5 of the male sample

Diagnosis by DSM – 5 (male gender)	Number of patients	%
294.11 Frontotemporal disease	2	2,4
295.70 Schizoaffective disorder, Bipolar type	1	1,2
295.90 Schizophrenia	38	45,8
296.44 Bipolar I disorder, Current or most recent episode manic, With psychotic features	1	1,2
297.1 Delusional disorder	6	7,2
301.7 Antisocial personality disorder	2	2,4
303.90 Alcohol use disorder, severe	3	3,6
317 Intellectual disability (intellectual developmental disorder), Mild	8	9,6
318.0 Intellectual disability (intellectual developmental disorder), Moderate	20	24,1
318.1 Intellectual disability (intellectual developmental disorder), Severe	2	2,4
Total	83	100,0

## **Oral Antipsychotic Drugs**

90.1% of patients were taking an oral neuroleptic. Only 11 patients were not medicated with an oral neuroleptic (9.9%).

71.2% were medicated with a 2<sup>nd</sup> generation neuroleptic (79 patients) while 57 patients undergo a 1<sup>st</sup> generation neuroleptic (51.4%). 74 patients had neuroleptics only from one of the generations (66.7%) while 37 patients had neuroleptics from both generations (33.3%).

On average, the patients were medicated with  $1.41 \pm 0.9$  different types of neuroleptics. There was a maximum of 5 types of neuroleptics prescribed to the same patient.

#### Depot antipsychotic drugs

47.7% (53) of the sample was medicated with a *depot* antipsychotic formulation. 85% of these patients were taking haloperidol (73.4% had a monthly periodicity and the remaining a periodicity from 3/3 weeks). The mean dose of haloperidol per month was 146 mg (ranging from 50 mg to 300 mg).

5 patients (9%) were taking risperidone long-acting injection with a periodicity of 15/15 days. 3 patients (5.7%) were taking mensal paliperidone long formulation injection.

## Mood stabilizer drugs

40 patients performed a mood stabilizer (36%). Of these patients, 25 (62.5%) were taking valproic acid with a mean dose of 1000 mg per day. 3 patients were taking topiramate (7.5%), 4 patients were taking gabapentin (10%) and 6 patients were taking carbamazepine (15%) (table 5).

Table 5 - Summary of the mood stabilizer drugs used in the sample

Mood stabilizer drug	Frequency	Percent
None	71	64,0
Carbamazepine	6	5,4
Gabapentin	4	3,6
Lithium	2	1,8
Topiramate	3	2,7
Valproic acid	25	22,5
	111	100,0

# Benzodiazepines

Most patients (80 patients - 72.1%) were taking benzodiazepines though 21 patients did not have any type of benzodiazepine on their prescription (18.9%). 10 patients (9%) had even two different types of benzodiazepines.

Regarding the type of benzodiazepines prescribed, lorazepam was the most used (55,6% of patients). Diazepam was the second most used benzodiazepine (18,9%). It is highlighted the choice for long half-life types of benzodiazepines (table 6).

Table 6 - Summary of the benzodiazepines used in the sample

Designation of benzodiazepine	Frequency	%
alprazolam	1	1,1
clonazepam	10	11,1
diazepam	17	18,9
flurazepam	1	1,1
lorazepam	50	55,6
oxazepam	11	12,2
total	90	100,0

## Other drugs

Only one patient had a psychostimulant on the therapeutic table (0.9%). In this case, it was methylphenidate. 3 patients were on anti-dementia drugs (2.7%). 20 patients were on antidepressant therapy (18%).

#### DISCUSSION

From the obtained data, we can infer that most inpatients in the security ward are young men.

The main offense committed was domestic violence. However, we can see differences in all other cases: in women, the most frequent offense is attempted murder whereas in men, after domestic violence, the most two frequent are kidnapping and murder.

According to literature, the dual pathology is frequent in these patients. In our analysis, we found a prevalence of 40.5%, much more frequent in men. It is also important to emphasize that in men there is a greater likelihood of recurrence of crime.

According to the Penal Code, the maximum penalty time in Portugal is 25 years.

The most frequent main diagnosis was schizophrenia (37.8%). Moderate intellectual disability (23.4%) and mild intellectual disability (14.4%) were the second and third most frequent diagnosis. Considering the group Schizophrenia and Intellectual disability they account for 77.4% of diagnosis.

The most frequent diagnostics, taking into account DSM 5, were the 295.90 Schizophrenia and the Intellectual Disability. However, in women, there is a predominance of moderate mental weakness whereas in men the Schizophrenia is, by far, the most frequent diagnosis.

As for the psychopharmacology, we can see that most of the patients are under therapy with antipsychotics either in oral form or in long-term injectable release. Its purpose is to treat psychosis and also to reduce the impulse present in several of these diagnostics, namely in mental weaknesses.

The fact that we work with a population with particular characteristics (serious behavioural changes, resistant psychosis situations) makes very often necessary the association of various antipsychotics for clinical stabilization.

It was possible to see that less than a half of the patients were medicated with antipsychotic *depot* in spite of its well-known advantages in patients with low insight, adherence to therapy, and difficult symptomatic control. Thus, this work allows us to understand the importance of an increased use of injectable drugs in *depot* formulation in the future, contributing to a better prognosis of these patients both in the psychiatric disease and in the reduction of repeat infringements, leading to the social peace and rehabilitation of these patients.

Taking into account the known advantages of second generation antipsychotics, namely of prolonged injectable release, both in less secondary effects and in a lower frequency of administration, allowing more stable plasma drug levels, we can see that these patients are mainly medicated with first generation psychotics. One of the contributions of this work is to recognize the importance of a greater implementation of second generation antipsychotics.

Another kind of psychotropic drugs with clear advantages in these patients are the mood stabilizers to control the impulse, but also because it is known a greater prevalence of epilepsy in psychotic patients.

Another very prescribed psychopharmacological class was that of benzodiazepines. These allow the control of anxiety along the day as well as regularization of sleep of these patients. The most commonly used benzodiazepines were those of long half-life, allowing a greater stabilization of the anxiogenic levels along the day.

Finally, it is important to emphasize that a meaningful percentage of patients had an antidepressant medication.

## **CONCLUSIONS**

The intervention in a dangerous unimputable patient is based on clinical-forensic and social parameters. It aims at clinical recovery and social and forensic rehabilitation as an increase of social answers and the criminal conscience of certain symptoms [5].

The psychopathological changes present in the patient's admission and the type of relationship established with the criminal conduct in question is, for us, a fundamental clinical forensic parameter as it allows to know exactly if the criminal conduct is part of the psychic anomaly [5].

The rehabilitation is the psychopharmacological treatment of the disease, in the creation of the psychosocial conditions which ensure the minimum social integration (with supervision), aware of the penalizing consequences. The therapeutic project is also centered in the regular psychotherapy, in the social and vocational training and integration. The rehabilitation is fundamental when we deal with this kind of patients. This involves the acquisition and development of individual skills: self-care management in health - hygiene, clothing, food and belongings in the disease; education for the disease; management of medicines and illicitness of symptoms – residential space management and financial skills. Gaining social skills is also very important as social answers with common activities sharing,

communication and sharing of responsibilities, conflict management and group reflections [2,5].

The activities developed in the rehabilitation are mainly in group, as the ritual in group allows the sharing of ideas, values and stereotypes. The social reinsertion starts in the ward and tends to target the community in activities of more social complexity: academic activities, vocational training courses, professional internships and craft activities [7].

The contact with the community environment must take place still at the ward and after stabilization. It starts with leaving the hospital daily for a short period of time, followed by a progressive enlargement in accordance with the obtained results, with technical supervision in a circumscribed perimeter in hospital setting [6].

These temporary exit permits to leave the hospital are complemented by jurisdictional and administrative permits. They work as forensic evaluation instruments of the degrees of responsibility and social insertion. There are two types of permits: the administrative and the jurisdictional [3].

As for the administrative permits (only after a successful jurisdictional one): the authorization to leave the hospital for a short period of time, with the aim of maintaining and promoting family and social ties/ way of providing the psychiatric rehabilitation; for the performance of activities – promote the labour, education or play rehabilitation; special authorizations to leave the hospital – urgent situations (illness or death of family members); authorizations to leave the hospital to prepare freedom (close to the end of the penal measure).

These licenses have a maximum of 3 days and take place every 3 months [8].

In the rehabilitation it is also fundamental the creation of rules and structures as well as the existence of a multidisciplinary team. So, one speaks of a global integrated care process. The psychiatrist is responsible for the therapeutic model, the diagnosis and the supervision of the therapeutic plans [2].

The nursing team is responsible for monitoring the medical therapeutic protocols, the supervision of the clinical behaviours and the responsibility for the patients and for the creation of the common therapeutic space [2].

The occupational therapy is responsible for the rehabilitation of daily life advanced activities like financial management and the development of a set of socio-occupational skills. The psychology develops the patient's intellectual and emotional skills to strengthen the most adaptive mechanisms, to increase the degree of frustration tolerance. The social worker

intervenes in the socioeconomic, labour and social identity. Technical assistants ensure all the communication about the patient [2].

The elaboration of a therapeutic and rehabilitation plan is essential and its aim is to diminish the person's dangerousness.

To monitor the patient's evolution, one must take into account: symptoms of the disease and its social repercussion; symptoms associated (personality disorder, consumption of – associated physical or neurological disease; degree of fulfillment of the tasks proposed and integration in the training vocational or socializing training activities; degree of fulfillment of rules for the administrative and jurisdictional departures and state of the patients on their return; degree and type of integration in the community environment; degree of awareness of the crime strand, of the symptoms, of the disease and control strategies.

It is fundamental to think of the safety ward as a health production space and not as a place of mere disease management or "dangerous states", thus trying to solve the patient's problems.

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