



# Pharmaceutical treatment in forensic psychiatric care

A systematic review and assessment of the medical, economic, social and ethical aspects

SBU ASSESSMENTS | ASSESSMENT OF METHODS IN HEALTH CARE AND SOCIAL SERVICES

JUNE 2018 | WWW.SBU.SE/286E

## Executive Summary

### Objective

The conditions when using psychiatric medication differ slightly between forensic and general psychiatry. In this evaluation, SBU describes these differences and investigates their significance on pharmaceutical treatments. The evaluation addresses the benefits, risks and experiences of treatment, in addition to health economics and ethical considerations. The evaluation was made as part of a government assignment.

### Conclusions

- ▶ Forensic psychiatric care differs from general psychiatric care, both in terms of psychiatric diagnoses and pharmaceutical treatment.
- ▶ In forensic psychiatry, it is more common for patients to have been diagnosed with several psychiatric conditions, such as psychosis, autism spectrum disorder, personality disorders and substance use disorders.
- ▶ Antipsychotics are administered to most patients in forensic psychiatry, including those who have not been diagnosed with psychosis. In forensic psychiatric care, it is common that patients receive more than one type of antipsychotic. Forensic psychiatric care also tends to administer traditional antipsychotics to a larger extent.

More treatment studies are needed in forensic psychiatry that investigate the effects of pharmaceuticals and if the differences in practice are clinically motivated.

- ▶ In addition to the benefits to an individual's health and safeguarding society, understanding the effects of psychiatric medication also has a major significance on how social resources can be used effectively. Treatment that can shorten the length of forensic psychiatric care and reduce the risk of relapse into crime is most likely

cost-effective, especially as the cost of pharmaceuticals is considerably low in relation to the total cost of care.

- ▶ Since forensic psychiatric care is conducted under detention, ethical aspects of pharmaceutical treatment are particularly important. One patient and relative association has stated that there is insufficient patient information about medications, which can impede compliance. There is reason to allow for some patient participation, despite their autonomy being restricted to safeguard the public.
- ▶ Society has a responsibility to finance research in forensic psychiatry, since the care is involuntary and special consideration must be paid to research ethics. To assess benefits and risks, randomised studies are needed. Thanks to Swedish registers, a strong foundation is available for monitoring effects on important outcomes such as health, length of care and relapse into crime. Patient experiences should also be studied, and the results considered when administering psychiatric care.

### Background

In Sweden, a person who has committed a crime under the influence of a severe mental disorder can be sentenced to forensic psychiatric care which is regulated partly by the Health and Medical Services Act and partly by penal law. "Severe mental disorder" is a legal term, not a medical, and the patients in forensic psychiatry are a clinically heterogeneous group. Psychotic disorders are the most common diagnoses, followed by autism spectrum disorder and personality disorders. Virtually all patients are treated with medication. Treatment is often long-term – in some cases lifelong.

### Method

The demographics of the patient groups and their pharmaceutical treatments were studied by comparing the Swedish National Forensic Psychiatric Register

(RättspsyK) and the National Quality Registry for Psychosis Care (PsykosR) with the National Patient Register and the National Cause of Death Registry.

The evaluation includes systematic reviews of studies in forensic psychiatric care regarding 1) effects of pharmaceutical treatments; 2) the cost-effectiveness of the treatments and 3) patients' and staff's experiences of pharmaceutical treatments. We also mapped systematic reviews of pharmaceutical effects on comorbid conditions. To include the perspectives of patients and relatives, we collaborated with the national patients and relative association PAR. We estimated the cost of prescriptions of commonly used medications. Ethical aspects were discussed based on published literature.

### Main results

- **Benefits and risks.** We found ten studies of pharmaceutical treatments used in forensic psychiatry – all with a high risk of bias. These studies were not sufficient for evaluating the benefits and risks of medication used in forensic psychiatric care. In our review of treatments of comorbid conditions, we identified 13 systematic reviews with a low or medium risk of bias. The majority of comorbid conditions lacked systematic reviews.
- **Patient groups and pharmaceutical practice.** Our register study showed that more patients demonstrate comorbidity with other psychiatric conditions in forensic psychiatry. An assessment of the severity level also indicates more severe psychiatric conditions in forensic psychiatry, particularly among female patients, and a greater risk of premature death (before the age of 50).

Olanzapine is the most prescribed antipsychotic in both general psychiatric psychosis care and forensic psychiatry. Otherwise, traditional antipsychotics are more common in forensic psychiatry. Medication for treatment of ADHD and substance use is also more common among these patients with psychosis, as is anticholinergics to counteract side effects. The use of benzodiazepines in forensic psychiatry has decreased.

- **Experiences.** We only found one study that investigated the patients' own experiences of pharmaceutical treatments in forensic psychiatry. Increased knowledge could lead to changes in the way patients are approached and treatments administered. PAR highlights the need for a dialogue on the selection of medications, a more open discussion of side effects and increased opportunity for other treatments besides pharmaceuticals.
- **Health economic aspects.** We have been unable to assess the cost-effectiveness of the psychiatric medication included in the report since there is insufficient knowledge of the pharmaceutical effects. In forensic psychiatry, long-acting antipsychotic pharmaceuticals – the most expensive – are often used. However, psychiatric medication forms a very small proportion of the total cost of forensic psychiatric care.

### Discussion

Our review of pharmaceutical treatments in forensic psychiatry clearly indicates a neglected area of research. We can also note that forensic psychiatry – like general psychiatry – is limited by the lack of new antipsychotics. Forensic psychiatry would be helped by the development of novel antipsychotics that target the underlying biological causes of psychosis. Development of better treatments is of major significance to both patients and society.

Before new knowledge is achieved, forensic psychiatry should adopt the guidelines that exist for pharmaceutical treatment in general psychiatry. This particularly concerns the national guidelines for treatment with antipsychotics and treatment of substance abuse. Furthermore, it is important that these guidelines are viewed in relation to the special context of care in forensic psychiatry, and that consideration is taken to the comorbid conditions found in forensic psychiatry. Forensic psychiatry has existed for a long time and the experience of various pharmaceutical treatments should be comprehensive. However, this experience needs to be spread throughout forensic psychiatry units to ensure this knowledge is shared.

#### Project group

**Experts:** Peter Andiné, Göran Engberg, Katarina Howner, Eva Lindström and Susanna Radovic

**SBU:** Monica Hultcrantz (Project Manager), Susanne Gustafsson, Emin Hoxha Ekström, Caroline Jungner, Mikael Nilsson, Hanna Olofsson and Anna Ringborg

#### Scientific reviewers

Linus Broström, Malin Hamrén, Marianne Kristiansson, Mikael Landén, Leif Lindström and Maria Nyström Agback

SBU Assessments no 286, 2018 • [www.sbu.se/en](http://www.sbu.se/en)  
registrator@sbu.se • Graphic Design: Åsa Isaksson, SBU  
English Proofreading: Rebecca Silverstein, SBU