Cardiometabolic Risk, Metabolic Syndrome, and Related Diseases in Severe Mental Illness: Medicines Optimisation Guidance for Pharmacy

Dr Dolly Sud
Senior Mental Health Pharmacist
Postdoctoral Research Fellow
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Key message: *Pharmacists need to spend more time undertaking patient facing medicines optimisation activities to improve outcomes and experience of care for diabetes, heart diseases and related diseases patients with severe mental illness.*

1.0 Introduction

This document summarises practical advice on the care of physical health in patients with severe mental illness (SMI) based on the findings of the PhD research carried out by the author (1).

People with SMI are at a substantially higher risk of premature death, in that they die 10–20 years earlier than the general population (2). SMI represents a leading cause of the global burden of disease with high morbidity rates and an estimated excess mortality of one and a half to three times higher than the general population (3). Physical health diseases account for the overwhelming majority of premature deaths. Among physical health diseases, cardiovascular disease (CVD) and diabetes are the main potentially avoidable contributors to early death in people with SMI (1).

The premature and excess morbidity and mortality in people with SMI has ramifications not only for mental health and all health services but also for human rights and equity. A situation that has been labelled a scandal and in contravention of international conventions for the 'right to health' (4).

The mainstay of treatment for most people with SMI is antipsychotic medication. Mortality in individuals with SMI appears to be highest where there is both a lack or excess of (high-dose or use of multiple) antipsychotic medication. Antipsychotics are associated with an increased prevalence of cardiometabolic risk (CMR), metabolic syndrome (MetS), and related diseases. Marked differences exist in the incidence of CMR, MetS and related diseases associated with different antipsychotic medication.

The aim of this document is to improve medicines optimisation for patients with SMI. Ultimately, the goal is to improve clinical practice to move towards health equity for those with SMI. More detailed information can be found in the PhD thesis and related publications (1).

2.0 Key definitions

2.1 Severe Mental Illness

The definition of SMI adopted here is that which includes bipolar affective disorder, schizophrenia, schizoaffective disorder, and other non-organic psychotic disorders.

2.2 Cardiometabolic Risk

CMR encompasses a cluster of risk factors and markers that identify individuals at increased risk for CVD and type 2 diabetes mellitus and includes those who smoke, are overweight/obese, hyperglycaemic, hypertensive, dyslipidaemic, hyperlipidaemic, and have MetS. People with SMI have a higher relative risk (one- to fivefold) (21) for modifiable CMR factors. The prevalence of hyperglycaemia, hypertension, dyslipidaemia and

hyperlipidaemia in those with SMI has been reported to be 19%, 33.2%, approximately 48% and 61% respectively (1).

Public health data from the United Kingdom and the United States of America (1) suggest that around two-thirds of people with SMI are current smokers, approximately double that of the general population (1). Literature reviews indicate that people with SMI are two to three fold times more likely than in the general population to be overweight or obese (5,6).

2.3 Metabolic Syndrome

MetS is a more specific term that describes the concurrence of the most dangerous CVD risk factors. MetS is defined by the International Diabetes Federation as central obesity accompanied by any two of the following four factors: raised triglycerides (or specific treatment for this), reduced high density lipoprotein cholesterol (or specific treatment for this lipid abnormality), raised blood pressure (or treatment of previously diagnosed hypertension) or raised fasting plasma glucose (7). MetS is one of the most prevalent risk factors for developing CVD in those with SMI. Thirty-seven per cent of those with chronic schizophrenia have MetS (8) compared with 24% in the general population (8).

The terms 'patient' and 'informal carer,' these will be used throughout this document as this is how those individuals who took part in the PhD research referred to themselves.

3.0 Summary of the findings of the systematic literature review

The PhD reviewed the published literature on the role of pharmacy in CMR, MetS and related diseases in patients with SMI to understand the nature of interventions that pharmacy had in this area of care and to inform the subsequent research. The two key messages of this review were as follows:

- Face-to-face interactions of pharmacists with other individuals such as when working as part of a multidisciplinary team on an inpatient ward consistently and significantly improves the process outcomes such as the rate of blood tests done for those with CMR, MetS and related diseases and SMI.
- Sole reliance on reminders like pop-up alerts on computer systems, such as electronic prescribing or notes attached to prescriptions, appears to have no statistically significant impact on outcomes.

4.0 Guidance on providing care for cardiometabolic risk, metabolic syndrome, and related diseases for patients with severe mental illness

4.1 Practical advice about the provision of information about side effects and monitoring of psychotropic medication e.g., antipsychotics

- Finding the appropriate time in the illness continuum or journey to discuss side-effects with patients with SMI is important. Conversations about medication and their side effects should ideally be scheduled to take place at the earliest appropriate opportunity to minimise this effect and implement any relevant interventions. If left too late then side effects may already be having their impact on CMR, MetS and related diseases
- Manufacturers' patient information leaflets might not be particularly useful to patients partly due to the difficulty that patients have in understanding them.
- Patients want information exchange, in other words, the opportunity to consider, discuss and question, often personalised information. Information provision and drug choice should be tailored to the needs of each patient. Indeed, this is the foundation of shared decision making.
- A medicines information leaflet can form part of this information exchange but should not be the sole source or wholly relied upon.

- It must also be acknowledged that some patients might not want to have conversations or be informed about the side-effects of medication. Patients must be asked what their desires are about what information they do or do not which to receive prior to such conversations taking place.

4.2 Establish and maintain direct face to face relationships with patients

- As a profession, pharmacists and pharmacy technicians need to work to find effective strategies to promote their role as experts in counselling and discussing side-effects of medication with patients with SMI.
- Understanding patients' experiences provides insights and will inform pharmacists to undertake effective information exchange.
- Familiarity and at least one meaningful interaction appear to be important in patients subsequently proactively seeking support from pharmacy.
- Such relationships require high frequency and in-depth interactions to be perceived to being meaningful and significant to patients.
- The experiences of 'medicated hunger' and weight gain, including perceived risk of psychotropic medication to cause weight gain, impact on adherence, views about choice of medication and patients' identity including self-esteem.

5.0 Guidance on providing care for cardiometabolic risk, metabolic syndrome, and related diseases for informal (family) carers of patients with severe mental illness

5.1 Role of informal carers

- Informal carers play a critical role in the management of CMR, MetS and related diseases in patients with SMI. Pharmacists' relationships with both patients and informal carers will benefit significantly from understanding of the informal carers' perspectives, role, knowledge, and in-depth understanding.
- Informal carers are brokers of unique insights and knowledge about the needs and preferences of patients. Their interactions with healthcare services often require that they mediate and advocate on behalf of the patient although they may advocate for themselves rather than the patient. The extent to which and circumstances under which an informal carer can and should speak for the patient and patient consent must be acknowledged as an important consideration.
- Their role is associated with high demands, requiring many sacrifices. This can impact negatively on their wellbeing as it may contribute to carers neglecting their own health. They may well have their own mental and physical health problems which require support and care.
- Informal carers may be concerned about the impact of medication on the physical health as well as ability to do other activities of those to whom they provide care, in particular weight gain, overweight and obesity. This may lead to informal carers anxiety and worry as well as feelings of conflict about the use of these drugs given their potential role in adherence.

5.2 Practical advice about the provision of information about side effects and monitoring of psychotropic medication e.g., antipsychotics

- Improved understanding of information about medication might allow carers to feel that they can play an active part in the treatment process.
- Pharmacists need to increase informal carers' involvement in discussions about medication including side-effects, this should be facilitated by establishing a familiar relationship and creating an environment where this can happen. This must, however, consider the patient's wishes as they might not want the informal carer involved.

5.3 Establish and maintain relationships with informal carers

- A significant proportion of informal carers in the research lacked awareness or any contact with pharmacists. Pharmacists, especially mental health pharmacists, need to engage and establish relationships with informal carers.

6.0 Guidance on the provision of care for cardiometabolic risk, metabolic syndrome, and related diseases for patients with severe mental illness for pharmacy practice and policy

- It is not just a matter of increasing the number of pharmacists in the workforce but focusing efforts and resources towards making pharmacists more accessible and visible to both patients and other care professionals. Furthermore greater emphasis needs to be placed on person-centred care and establishing trust and continuing relationships with patients. This will be critical in the development of new services.
- Invisible and visible interprofessional boundaries between pharmacists and other healthcare professionals can have a significant impact on the role and extent of influence pharmacy has in patient care. These boundaries contribute to conflict and tension between pharmacists and doctors and may limit opportunities to build professional relationships.
- Visible boundaries include pharmacists spending significant amount of time completely physically separated from other healthcare staff by being in a separate building or separate department. Invisible boundaries include the different ways that pharmacists work and communicate with others.
- Other factors identified by pharmacists which may contribute to boundaries are heavy workloads and demands and organisational structures as these may prevent pharmacists spending time engaging in face-to-face interactions with others. Resolving these would go some way to provide opportunities to build perceived healthy professional relationships.

7.0 Summary

The research upon which this guidance is based highlighted that patient or informal carer need is currently not being met; in-depth meaningful interactions with pharmacists were infrequent. Pharmacists need to spend more time undertaking patient facing medicines optimisation activities to improve patient outcomes. Changes to pharmacy practice and policy could facilitate shared physical space and face-to-face interactions between pharmacists and patients, informal carers and other care professionals. Ultimately, this would encourage person-centred care with the goal of building trusting relationships which is key in this vulnerable population.

8.0 References

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