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ARTICLE

Let's get physical: improving the medical care of people with severe mental illness

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SUMMARY

There is clear evidence of increased medical comorbidity and related mortality in people with severe mental illness, despite numerous guidelines for managing medical conditions in this population. This article assesses inequalities in medical treatment and preventive healthcare received by psychiatric patients compared with the general population. It considers whether the medical care provided is adequate and whether published guidelines improve it. Mental health specialists, general practitioners and hospital specialists appear to deliver poorer than average medical care for this vulnerable population. Implementation of physical healthcare guidelines is incomplete and the guidelines must be matched with resources to address this deficit.

DECLARATION OF INTEREST

None.

High rates of mortality associated with psychiatric disorders have been extensively reviewed and quantified (Harris 1998; Neeleman 2001). The mortality gap between observed and expected deaths among people with severe mental illness (psychosis) has not improved over time, despite increased recognition of the contribution of physical comorbidity (Dembling 1999; Saha 2007). A generation of psychiatrists has tried to address deaths from so-called unnatural causes (suicide), but deaths from natural causes (comorbid physical illness) have continued to rise and may account for as much as 80% of premature mortality in people with mental disorders (Harris 1998; Colton 2006; Parks 2006; Mitchell 2009a).

Medical illness affects more than half of people with mental illness, particularly in high-risk groups such as older people, those with intellectual disability, cognitive impairment or substance misuse, those in long-stay institutions and the homeless (Alaja 1998; Fisher 2001). A large US study of homeless people with severe mental illness reported that 74% had medical needs, 44% of which were unmet (Desai 2005). In another US study, systematic examination of people with intellectual disability referred to psychiatric services revealed that 75% had undetected medical problems (Ryan 1997). Even if medical problems are identified, medical in-patients with mental illness appear to experience more post-operative complications and elevated mortality (Copeland 2008; Khaykin 2010). Yet it is the nature as well as the extent of comorbid physical illnesses that is concerning, with an excess of metabolic and cardiovascular problems (Mitchell 2006; Leucht 2007; Bresee 2010). The European METEOR study reported that 70% of patients receiving antipsychotics for schizophrenia had lipid disorders and 40% hypertension (De Hert 2008), and a more recent US study found that 90% of Medicaid recipients prescribed second-generation antipsychotics for schizophrenia had at least one major metabolic risk factor (Bell 2009).

Mental health professionals have unwittingly increased the risk of medical conditions in their patients by recommending a variety of psychotropic drugs that contribute to cardiovascular disease, diabetes and endocrine disorders (Newcomer 2005). In people with unmedicated schizophrenia, metabolic syndrome is relatively uncommon, affecting only about 10% (Chiu 2010). Although the mechanisms underlying cardiometabolic complications are not entirely clear, weight gain and cholesterol increases are particular problems with antipsychotics (Rummel-Kluge 2010). A 3.8 kg gain is typical in drug-naive patients starting antipsychotic treatment (Tarricone 2010), but 12–15 kg is not uncommon.

Given this background of high rates of medical comorbidity in people with mental ill heath but no clear method to manage the problem, we suggest that it is pertinent to focus on the following questions:

1 Do people with severe mental illness in the UK and elsewhere receive the same preventive healthcare and medical care as other people?
2 Is adequate medical monitoring and care provided in psychiatric settings?

3 Can guidelines or other interventions improve medical care for people with severe mental illness?

Inequalities in medical treatment and preventive healthcare

Ideally, knowledge that a particular population is vulnerable to excess physical comorbidity should prompt enhanced medical care. Unfortunately, where mental illness is concerned, strong evidence suggests inequitable medical care in most domains, although studies have mostly focused on cardiovascular and diabetes care. One explanation is that inequalities result from the patients' low attendance or poor adherence to treatment. Yet many people with mental illness, in particular those with depressive disorders, seek help more often and use more general healthcare resources than the rest of the population (Stein 2006; Baune 2007). Furthermore, even when attendance is high, quality of care can be low (Desai 2002; Goodwin 2004; Jones 2005; Salsberry 2005). Of course, low attendance and poor quality of care is a particularly bad combination (Kaplowitz 2006). Therefore, predictors of adequate care include measures of both quality and quantity, and deficits in either may result in failing care and poor medical outcomes (Mitchell 2010).

Our review of studies comparing the quality of medical care received by people with and without mental illness had telling results (Mitchell 2009b). More than 70% of the studies found that patients with psychiatric diagnoses received inferior quality of care in at least one medical area. However, within this dataset there was only a small number of UK-based studies, the vast majority being from North America.

Hippisley-Cox and colleagues (2007) used the UK's QRESEARCH primary care database to identify 127 932 patients with and without mental disorder who had coronary heart disease. There were no differences between groups in the offer of smoking cessation advice or prescription of aspirin, antiplatelet drugs, anticoagulants or beta-blockers. However, patients with schizophrenia were 15% less likely to have a recent prescription for a statin and 7% less likely to have had cholesterol levels recorded; similar results were found for patients with bipolar disorders. Whyte *et al* (2007) examined quality of care indicators derived from the General Medical Services contract for UK general practitioners. There was no difference in process measures of care, although patients with mental illness had better than expected HbA1c control. Mangtani and colleagues (2005) looked at the take-up of the influenza immunisation programme in the UK shortly after its introduction in 2000. Of their sample of 5572 individuals over the age of 74, 70% of men and 61% of women with depression were vaccinated, compared with 75% of men and 67% women without depression. In a UK case–control study, Roberts *et al* (2007) found that those with a diagnosis of schizophrenia were about half as likely as comparator groups to have had their blood pressure or smoking status recorded during the 3-year study period.

Inequalities in medical care may extend beyond treatment of active medical conditions to include preventive care. Lord and colleagues (2010) reviewed comparisons of preventive care, from 26 studies across Europe and North America, in individuals with and without psychiatric illness. Of their 61 comparisons across 13 healthcare domains, 27 revealed inferior preventive care in those with mental illness, 10 suggested superior preventive care and 24 reported inconclusive findings. Inferior preventive care was most apparent among people with schizophrenia and in relation to osteoporosis screening, blood pressure monitoring, vaccinations, mammography and cholesterol monitoring. One UK-based study examined cross-sectional data of breast screening records for 933 patients with psychiatric illness and 44 195 women without mental health problems aged 50–64 (Werneke 2006). The patients were as likely as the reference group to attend breast screening, but patients with a history of multiple detentions under the Mental Health Act were significantly less likely to attend, as were patients with a diagnosis of psychosis.

Medical care and metabolic monitoring in psychiatric settings

Medical care in psychiatric settings has been poorly investigated, with few if any large-scale studies. The focus for early studies was largely the frequency of physical examinations in psychiatric settings. Most mental health clinicians acknowledge the importance of physical examination, but evidence suggests that about 60% of their patients do not receive a physical examination and only 20% receive thorough examination. Responsibility for medical care is often delegated to primary care (McIntyre 1977; Patterson 1978; Bobes 2011). Physical examination is only one marker of adequate physical healthcare, so this result hints that other areas of care (such as dental) may also be inadequate. However, new evidence suggests that wider deficits exist across a spectrum of relevant medical conditions. Much of this evidence involves audits of physical healthcare monitoring for people recently prescribed atypical

antipsychotics. Indeed, guidelines for those not taking antipsychotic medication are currently underdeveloped.

Our group reviewed 38 studies, involving 217 539 patients, that examined routine monitoring of patients taking antipsychotics before the implementation of explicit guidelines (Mitchell 2012). Across all baseline studies, routine monitoring rates were generally low but were highest for blood pressure (67%) and triglycerides (60%). Cholesterol was measured in 47% of patients, glucose in 42% and weight in 44%. Lipids and haemoglobin A1c (HbA1c) were monitored in less than 20%. Rates were similar for patients with schizophrenia in US and UK studies, and for in-patients and out-patients. One UK study was particularly striking: out of 606 in-patients taking antipsychotics, only 19% had weight recorded in their clinical notes and 3.5% had their lipids monitored during their admission (Paton 2004).

Guidelines to improve the medical care of patients with severe mental illness

Governments have been slow to acknowledge the problem of medical ill health associated with severe mental illness, and national guidelines are generally devoid of clear mandatory recommendations (Department of Health 1999; Unützer 2006; Pincus 2007; US Department of Health and Human Services 1999). Little had been published before 2000, but over the past decade or so publications have abounded. Eighteen sets of guidelines on the medical care of patients with severe mental illness or schizophrenia in the USA, Australia, Brazil, Canada or Europe have been extensively reviewed by De Hert and colleagues (2011).

A key publication in the USA (American Diabetes Association 2004) recommends that mental health practitioners carry out regular monitoring of weight, waist circumference, blood pressure, fasting plasma glucose level and fasting lipid profile of patients taking antipsychotics. In the UK, two key guidelines are in place: the revised National Institute for Health and Clinical Excellence (NICE) schizophrenia guidelines (National Collaborating Centre for Mental Health 2010) and the UK Quality and Outcomes Framework (QOF) for primary care (National Institute for Health and Clinical Excellence 2011). The latter provides a financial incentive for general practitioners to provide medical screening for patients with schizophrenia, bipolar affective disorder and other psychoses under NICE indicators NM16–19, focusing on blood pressure, glucose or HbA1c, body mass index and the ratio of total cholesterol to high-density lipoprotein (Jamie 2012). It is important to note that the guidelines do not state what comprises adequate testing in clinical practice, although NICE does suggest monitoring physical health at least once a year (National Collaborating Centre for Mental Health 2010).

The guidelines generally address physical investigations, physical history, and examination and treatment advice. In terms of physical investigations, the most common recommendations are for fasting glucose, fasting triglycerides, fasting cholesterol, high- and low-density lipoprotein, and electrocardiogram (Table 1). Regarding recommended physical history and examination, most but not all of the guidelines advise a personal and family history, baseline physical examination, smoking and physical activity history, weight and waist measurement, blood pressure measurement, and diabetes history or examination (Table 2). Finally, regarding interventions, most of the guidelines recommend: advising patients and their families on physical activity and diet; encouraging smoking cessation; switching medication (if required); treatment of diabetes and lipid abnormalities; and referral, if necessary (Table 3). In general, the guidelines do not state who should take responsibility for monitoring (only three mention that it should be those prescribing high-risk medication), the minimum frequency of monitoring, and the importance of auditing ongoing monitoring. None mandates that physical care must take place, leaving monitoring to the discretion of individual clinicians.

Effectiveness of guidelines

Despite the publication of such a large number of guidelines, it is not clear whether any have been successfully implemented. Indeed, the value of enhanced screening or monitoring clinics has itself been poorly studied. To date, there are no randomised controlled trials (RCTs) of physical health monitoring clinics (Tosh 2010), although seven independent studies have looked at monitoring before and after guideline introduction (Mitchell 2012). A complicating factor is that, given the increased awareness among psychiatrists of metabolic side-effects of antipsychotics, it is possible that any change in practice was not an effect of the guidelines. Nevertheless, our study, which pooled rates of monitoring before and after guideline implementation, suggests that monitoring does appear to have improved for weight (up from 44% of patients to 76%), blood pressure (from 67% to 75%), glucose (from 42% to 56%) and lipids (from 20% to 37%). However, at least a quarter of patients were not being monitored even after guideline introduction. Rates were no

TABLE 1 **Recommended physical investigations from guidelines on screening for cardiometabolic risk in people with severe mental illness**

	MetS (state criteria)	Glucose: fasting	Glucose: non-fasting	HbA1c	OGTT	TC	HDL-C	LDL-C	TC:HDL-C ratio	Tri-glycer-ides	Other lab	ECG
USA (American Diabetes Association 2004)		✓				✓	✓	✓		✓		
USA (Marder 2004)		✓	(✓)	(✓)	×	✓	✓	✓		✓		✓
Sweden (Melkersson 2004)		✓	(✓)	(✓)		✓				✓		
Australia (Lambert 2004)	(✓)	✓	✓	×	(✓)	(✓)						
UK (Dinan 2004)		✓	✓	✓	(✓)							
Belgium (De Nayer 2005)	✓	✓	(✓)		(✓)	✓	✓	✓		✓		
Canada (Poulin 2005)		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Italy (Amati 2006)	✓	✓	×	×	×							
France (Lefebvre 2006)		✓		(✓)		✓	✓	✓		✓		✓
UK (Usher 2006)		✓								✓		
UK (Barnett 2007)	✓	✓	(✓)		(✓)	✓	✓	✓		✓		
Netherlands (Cahn 2008)		✓				✓	✓	✓		✓	✓	✓
Brazil (Elkis 2008)		✓			(✓)	✓	✓	✓		✓		
Spain (Saiz 2008)						✓	✓	✓		✓	✓	✓
Finland (Salokangas 2008)		✓				✓				✓	✓	✓
France (Saravane 2009)		✓				✓	✓	✓		✓		✓
Europe (De Hert 2009)				(✓)		✓	✓	✓		✓	✓	✓
Sweden (Gothefors 2010)		✓		(✓)	✓	✓	✓	✓		✓	✓	✓
Consensus		✓				✓	✓	✓		✓		✓

✓ recommended; (✓) conditional, see primary reference; × not recommended. Consensus implies recommendation from at least half of guidelines. ECG, electrocardiogram; HbA1C, haemoglobin A1c; HDL-C, high-density lipoprotein cholesterol level; LDL-C, low-density lipoprotein cholesterol level; MetS, metabolic syndrome; OGTT, oral glucose tolerance test; Other lab, miscellaneous laboratory tests; TC, total cholesterol.
Data from De Hert *et al* 2011.

better for those recently started on antipsychotics compared with those on existing medication. Thus, from this evidence it seems that, regardless of the published guidelines, medical care involving blood tests (and to a lesser extent clinical tests such as blood pressure and weight monitoring) is often overlooked.

Extensive research shows that in many areas guidelines are difficult to implement and so it should come as no surprise that the improvement following the introduction of guidelines is only modest (Pincus 2010). As few as one-third of medical patients receive guideline-concordant, evidence-based care (Grol 2001). In the UK, an evaluation of the many NICE recommendations found variable success in the guideline implementation (Sheldon 2004). A number of factors interfere with successful and widespread implementation (Cabana 1999). Frequently reported barriers include a lack of resources or time, inadequate organisational support, clinicians' reluctance to change, concerns over the quality of the guidelines and lack of responsibility (Francke 2008; Forsner 2010).

Predictors of inferior medical care

Predictors of medical care (metabolic testing) have been examined infrequently. People with severe mental illness are often hesitant to seek medical care because of symptom burden, low confidence, stigma or the attitudes of primary care physician (Berren 1999; Kim 2007). Some refuse the help that is offered (although healthcare professionals should still try to ensure that medical care is adequate). Although patient factors are no doubt important, provider factors are the direct responsibility of healthcare professionals and are amenable to change.

There may be infrastructural difficulties in providing medical care in psychiatric settings (Hewer 2004), and mental health professionals may lack confidence regarding patients' physical health concerns (Daumit 2002). The presence of a psychiatric diagnosis can distract clinicians from considering and managing medical illness (Graber 2000; McDonald 2003). In a survey of 250 people with schizophrenia conducted in the USA, 49% felt that doctors took their medical problems less seriously after discovering that they had a

TABLE 2 Recommended physical history and examination from guidelines on screening for cardiometabolic risk in people with severe mental illness

	Personal history	Familial history	Baseline physical examination	Monitoring physical examination	Alcohol history or examination	Substances history or examination	Smoking history	Physical activity	Diet	Overweight/ obesity (weight/ body mass index)	Waist	Blood pressure	Diabetic ketoacidosis (DKA)	Dental examination	Diabetes history or examination	Heart (infarction/ failure)	Preventive care (breast, prostate, bowel etc)	Sexual history or examination	Renal function	Stroke history or examination
USA (American Diabetes Association 2004)	✓	✓								✓	✓	✓	✓							
USA (Marder 2004)	✓	✓								✓	✓				✓	✓		✓		
Sweden (Melkersson 2004)		✓					✓	✓		✓			✓		✓					
Australia (Lambert 2004)	✓	✓					✓	✓		✓	✓	✓	✓		✓					
UK (Dinan 2004)	✓	✓													✓					
Belgium (De Nayer 2005)	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓					
Canada (Poulin 2005)	✓	✓	✓	✓			✓	✓	✓	✓	✓				✓					
Italy (Amati 2006)	✓	✓								✓	✓	✓			✓					
France (Lefebvre 2006)		✓	✓	✓			✓			✓	✓							✓		
UK (Usher (2006)	✓	✓	✓							✓	✓	✓								
UK (Barnett 2007)	✓	✓					✓	✓	✓	✓	(✓)	✓	✓		✓					
Netherlands (Cahn 2008)	✓	✓	✓	✓										✓	✓		✓	✓		
Brazil (Elkis 2008)	✓	✓						✓	✓	✓	✓	✓			✓					
Spain (Saiz 2008)	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓		✓				✓		
Finland (Salokangas 2008)			✓																	
France (Saravane 2009)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓				
Europe (De Hert 2009)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓				✓
Sweden (Gothefors 2010)	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓							✓	
Consensus	✓	✓	✓				✓	✓		✓	✓	✓			✓					

✓ recommended; (✓) conditional, see primary reference. Consensus implies recommendation from at least half of guidelines.
Data from De Hert *et al* 2011.

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TABLE 3 Recommended treatment advice from guidelines on screening for cardiometabolic risk in people with severe mental illness

	Psychotropics choice	Psychotropics switch	Information for patients	Information for family	Physical activity	Diet	Smoking cessation	Education	Education for primary care/ general practitioner	Education for medical specialties	Treatment for diabetes	Treatment for hypertension	Treatment for dyslipidaemia	Referral (specify)
USA (American Diabetes Association 2004)		✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓
USA (Marder 2004)	✓	✓	✓		✓	✓					✓		✓	✓
Sweden (Melkersson 2004)		✓			✓	✓	✓				✓		✓	
Australia (Lambert 2004)			✓	✓	✓	✓	✓				✓			✓
UK (Dinan 2004)					✓	✓								(✓)
Belgium (De Nayer 2005)	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓
Canada (Poulin 2005)			✓		✓	✓					✓			
Italy (Amati 2006)			✓	✓	✓	✓	✓				✓		✓	✓
France (Lefebvre 2006)		✓	✓	✓	✓	✓	✓				✓			✓
UK (Usher 2006)			✓		✓	✓	✓							✓
UK (Barnett 2007)	✓	✓	✓		✓	✓		✓			✓	✓	✓	✓
Netherlands (Cahn 2008)		✓	✓		✓	✓	✓				✓	✓	✓	
Brazil (Elkis (008)			✓	✓	✓	✓					✓		✓	
Spain (Saiz 2008)			✓	✓	✓	✓	✓	✓	✓	✓				✓
Finland (Salokangas 2008)					✓									
France (Saravane 2009)	✓	✓	✓		✓	✓					✓	✓	✓	✓
Europe (De Hert 2009)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sweden (Gothefors 2010)	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Consensus		✓	✓	✓	✓	✓	✓				✓		✓	✓

✓ recommended; (✓) conditional, see primary reference. Consensus implies recommendation from at least half of guidelines.
Data from De Hert *et al* 2011.

psychiatric diagnosis (National Alliance on Mental Illness 2008). In studies of metabolic testing, primary care visits were positively associated with HbA1c and lipid testing (odds ratios OR = 5.01 and 2.21, respectively; Banta 2009), suggesting that shared care or collaborative care may be beneficial (Rubin 2005). In a UK primary care setting, body mass index, blood pressure, cholesterol or HbA1c were monitored in more than 90% of patients under the QOF system. In the USA, patients seen by a fee-for-service psychiatrist were more likely to receive lipid testing (OR = 2.35) and eye examinations (OR = 2.03; Banta 2009).

Another factor is clarity regarding medical responsibility during periods of both active mental health treatment and monitoring (relapse prevention). In an Australian study, 69% of mental healthcare staff were unsure about who should follow up abnormal cardiometabolic screening results (Organ 2010). There have been numerous recommendations to remedy this problem (Horvitz-Lennon 2006; Copeland 2008; Lambert 2009). During acute and continuation care, basic medical checks should be the responsibility of the main mental health professional (unless this care is already delegated). If they were the responsibility of primary care or medical specialists, it is unlikely that problems would be detected. If a medical problem is detected, it should be treated by an appropriate practitioner who is skilled and confident to do so.

One method that may help to improve screening and treatment in mental health settings is the creation of physical health (or weight management) clinics, usually run by mental health professionals with variable input from primary care or hospital specialists (Holt 2010; Millar 2010). These should offer patients easily accessible basic health checks and metabolic monitoring. At present, many healthcare professionals say that they have no

access to basic medical equipment such as scales (15%), a height rod (88%) or a tape measure (66%; Verdoux 2008) and, in our opinion, even those with the equipment may not be confident to conduct health checks.

Improving medical care

It is important to note that effective monitoring of metabolic disturbances is not sufficient on its own; appropriate treatment is also required. Data from the US National Ambulatory Medical Care Survey from 1992 and 1996 found psychiatrists offered smoking-cessation advice to individuals with mental ill health on only 12% of visits (Himelhoch 2003). Active help to stop smoking is rare in mental health settings (Price 2007). Individuals with mental health problems who wish to stop smoking can be helped by buproprion as well as other strategies (Tsoi 2010).

Physical health problems are often unrecognised or inadequately treated in people with mental illness (Taylor 2005). For example, in a sample of in-patients with schizophrenia, 84% of those found to be hypertensive on screening were not recognised as hypertensive on admission (Bernardo 2009). In the US-based Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) study, about a third of patients met National Cholesterol Education Program (NCEP) criteria for metabolic syndrome at baseline, but 88% of patients with dyslipidemia were untreated, as were 62% with hypertension and 38% with diabetes (McEvoy 2005; Nasrallah 2006). In another US study, 62% of patients treated with second-generation antipsychotics who had elevated low-density lipoprotein levels did not receive medical treatment, despite the fact that they were in-patients (Correll 2007). A Spanish study reported that, among in-patients with schizophrenia, only 60% of those with diabetes, 28% of those with hypertension and 14% of those with dyslipidaemia were receiving active medical treatment on admission (Bernardo 2009).

The only area, other than smoking cessation, in which medical management has been comprehensively examined in psychiatric settings is weight control (Lowe 2008). One review of ten RCTs showed that non-pharmacological interventions such as cognitive–behavioural strategies, nutritional counselling and exercise programmes, delivered on an individual or group basis, were modestly effective in reducing or attenuating antipsychotic-induced weight gain (Álvarez-Jiménez 2008). Mean weight losses across studies are about 4 kg for 6-month interventions, with potentially positive effects on insulin regulation and HbA1c (Gabriele 2009). One additional RCT of note, the US-based Primary Care Access, Referral and Evaluation (PCARE) study examined a package of medical care in community mental health settings: 407 patients with severe mental illness were randomly assigned to either the medical care management intervention or usual care (Druss 2010a). At a 12-month follow-up evaluation, the intervention group had received an average of 59% of recommended preventive services, compared with 22% in the usual care group. They also received a significantly higher proportion of evidence-based services for cardiometabolic conditions (35% *v.* 28%) and were more likely to have a primary care provider (71% *v.* 52%) and receive a physical examination. Druss and colleagues (2010b) have also trialled patient-led peer support over a six-session programme. After 6 months, there was a significantly elevated rate of visits to primary care (68.4% *v.* 51.9%) in those receiving peer support.

Conclusions

Patients with mental ill health, particularly those taking antipsychotic medication, are a vulnerable group with high rates of comorbid medical illness. Yet they often receive relatively low levels of medical (or preventive) care in medical settings, as well as suboptimal levels of physical examination and medical monitoring in psychiatric settings. Reasons for these inequalities in care are complicated and are probably related to both patient and provider factors. These issues are not easy to resolve but provider factors remain a priority and should be examined at organisational level. Closer integration of primary care and mental health services and peer-based support may help, but it must not obscure responsibility for testing at key periods, such as on admission or before starting antipsychotic medication.

Basic psychiatric care may need to be supplemented by physical health clinics (for those receiving mental healthcare), weight management clinics or metabolic clinics and a system of audit to ensure that testing and appropriate management of identified abnormalities takes place. Despite the availability of numerous guidelines, implementation has been patchy and many demand a culture shift towards joint mental and physical healthcare. To support implementation, educational campaigns and quality assurance initiatives are recommended, as well as more research into the most effective strategies to improve cardiometabolic monitoring, medical management and preventive healthcare in the vulnerable population of mentally ill patients.

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MCQs

Select the single best option for each question stem

1 Regarding comorbid medical conditions in mental illness:

a the publication of guidelines for monitoring physical health has invariably been followed by improvement in standards of clinical practice
b the prevalence of comorbid medical conditions in people with schizophrenia is less than 25%
c atypical antipsychotic medication has negligible contribution to cardiometabolic risk
d drug-naive patients with first-episode schizophrenia have about a 10% prevalence rate for metabolic syndrome
e the elevated mortality rates among people with mental disorder are entirely attributable to suicide.

2 According to NICE, the professional or team responsible for monitoring metabolic risk factors in schizophrenia is:

a the primary care trust/general practitioner
b the metabolic monitoring clinic
c the cardiologist
d the psychiatrist/mental health teams
e unclear.

3 The NICE guidelines on schizophrenia recommend monitoring physical health:

a once a month
b 3 monthly
c 6 monthly
d once a year
e at every clinic review.

4 All of the following are true except:

a women with a history of multiple mental health detentions are less likely to attend breast screening than the general population
b patients with schizophrenia have inferior preventive care for osteoporosis screening compared with the general population
c people with a mental disorder and coronary heart disease are less likely to be offered smoking cessation advice than mentally healthy people with such disease
d people with mental disorder are as likely to be offered antiplatelet drugs as those without
e diabetes care is disproportionately low among those with mental illness.

5 Under the UK Quality and Outcomes Framework for primary care, general practitioners are incentivised to provide medical screening for those with schizophrenia, psychoses and bipolar disorder. This includes all of the following except:

a blood pressure
b breast screening
c glucose
d body mass index
e cholesterol:high-density lipoprotein ratio.