

Poor monitoring of physical health in patients referred to a mood disorders service

David Lack, Richard I. G. Holt and David S. Baldwin

Abstract

Background: Severe mental illness is associated with significantly increased morbidity and mortality, most commonly from cardiovascular disease. Much of the risk is explicable by potentially modifiable factors such as diabetes and dyslipidaemia, and regular screening of patients with severe mental illness is recommended. Screening and intervention for physical illness among people with schizophrenia is often suboptimal, but little is known about monitoring physical health in patients with affective (mood and anxiety) disorders.

Method: Electronic and paper records were examined for evidence of monitoring of cardiovascular disease risk factors in the 12 months prior to assessment in patients attending a tertiary referral specialist service for affective disorders over a period of 39 months. The number of contacts with healthcare services was calculated for each patient to provide an estimate of the opportunities for monitoring.

Results: Notes for 113 patients were examined. The mean number of contacts with outpatient services in the 12 months before assessment was 6.9 (standard deviation 7.7). Documented evidence of physical-health monitoring was seen in only 29 patients: monitoring was more commonly undertaken in patients with recurrent unipolar depression and in those who had undergone recent inpatient treatment. Contacts that could have allowed monitoring of physical health were common.

Discussion: Although most patients had multiple contacts with health services in the 12-month period before their assessment in the service, there was little evidence of use of primary-prevention measures to reduce the risks of diabetes and cardiovascular disease in this vulnerable population.

Keywords: affective disorder, monitoring, physical health

Background

People with 'severe mental illness' (often considered to include schizophrenia and bipolar affective disorder) are at greater risk of long-term physical ill-health and typically die 10–20 years earlier than expected. Although suicide and trauma account for the highest relative risks in mortality [Brown, 1997], the commonest cause of death in people with severe mental illness is cardiovascular disease [Brown *et al.* 2000]. Much of the excess cardiovascular disease in people with severe mental illness can be explained by the increased prevalence of traditional and modifiable risk factors, such as diabetes, hypercholesterolaemia and smoking [van

Winkel *et al.* 2008; De Hert *et al.* 2009; Holt *et al.* 2010]: this excess mortality is seen in patient groups both receiving and not receiving antipsychotic drugs [Regenold *et al.* 2002].

For these reasons, national and international guideline groups, including the National Institute for Health and Clinical Excellence (NICE) in England, advise that patients with severe mental illness should undergo regular screening for diabetes and other risk factors for cardiovascular disease [NICE, 2011, 2014]. Despite this clear guidance, many studies have shown that monitoring of physical health in people with severe mental

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illness is less than optimal, probably due to a number of interacting clinical and organizational factors [Barnes *et al.* 2007, 2008; Gubbins *et al.* 2012].

People with bipolar disorder [Weiner *et al.* 2011], recurrent unipolar depressive disorder [Wulsin *et al.* 1999], and anxiety disorders [Roest *et al.* 2012], also have increased cardiovascular morbidity and mortality, but physical-health monitoring in patients with affective disorders has received less attention than monitoring in patients with schizophrenia [McIntyre *et al.* 2010]. It seems likely, but is currently uncertain, that screening and intervention opportunities are also overlooked by health professionals in managing patients with severe affective disorders [Young and Grunze, 2013].

The aim of this study was therefore to ascertain the level of screening for diabetes and other metabolic abnormalities over a 12-month period among a population of patients with typically long-standing, severe and treatment-resistant affective disorders, who were referred to, and attended, a UK regional tertiary referral service. We also measured the frequency of patient contacts with mental-health services prior to assessment to determine the potential for opportunistic physical-health screening.

Methods

We examined electronic and paper records of consecutive referrals to a regional tertiary specialist service for patients with complex, severe and treatment-resistant affective (mood and anxiety) disorders. The notes of all patients seen in the service between January 2010 and March 2013 were inspected for evidence of weight and blood-pressure measurement, and blood testing for glucose, glycated haemoglobin, lipid profile and prolactin. In each patient, the notes (including referral letters) were inspected for evidence of monitoring in the 12-month period before their attendance at the clinic. The local general-hospital pathology database was also searched for evidence of blood testing in these patients, in primary and secondary care settings. The number of contacts with healthcare professionals was counted for each patient to judge potential opportunities for testing.

Statistical analysis was performed using the Statistical Package for the Social Sciences 20

software for Microsoft Windows. As it was not known whether screening would differ between demographic or diagnostic groups, we hypothesized there would be no statistically significant differences in physical-health monitoring patterns between patients grouped by psychiatric diagnosis, age and history of hospital admission, using Pearson's chi-square test or Fisher's exact test when needed to test these hypotheses.

Results

The case notes of 63 women and 50 men (mean age 50.6 years, age range 19–85 years) were examined. A total of 52 patients (46.0%) had the primary diagnosis of unipolar depressive disorder, 33 patients (29.2%) a primary diagnosis of bipolar disorder and 13 patients (11.5%) a primary diagnosis of an anxiety disorder or obsessive-compulsive disorder: 15 patients (13.3%) had other diagnoses in which mood disturbance was the prominent feature that led to referral to the service (e.g. prominent affective instability in a patient with probable schizoaffective disorder). A total of 40 patients (35.4%) had comorbid psychiatric conditions, principally secondary anxiety disorders in patients with a primary diagnosis of a mood disorder.

There was little documented evidence of physical-health monitoring in the hospital case notes or pathology database of the examined patients (Table 1). Only 29 patients had any one of these measurements recorded in the notes. Patients aged 40 years or older were more likely to have evidence of health monitoring (28 out of 88 patients, 31.8%) than younger patients aged less than 40 years (1 out of 25 patients, 4.0%) (chi-square test $p = 0.005$). The notes of patients with unipolar depression (18 out of 52 patients, 34.6%) were more likely to include evidence of physical-health monitoring than the notes of patients with bipolar disorder (6 out of 33 patients, 18.2%) (chi-square test value $p = 0.02$): no patient with an anxiety disorder had documented evidence of risk-factor monitoring. Patients undergoing treatment with antipsychotic drugs were more likely to have evidence of physical-health screening. A total of 67 of the study patients were receiving an antipsychotic, 21 (31%) of whom had documented screening, whereas 46 patients were not taking an antipsychotic, 8 of whom (17.4%) had documented screening; these proportions were not significantly different (chi-square test, two-sided, $p = 0.095$).

Table 1. Documented evidence in hospital and laboratory records of monitoring for various cardiovascular risk factors and prolactin during the preceding 12 months.

	Number of subjects (<i>n</i> = 113)	Percentage
Fasting plasma glucose	18	15.9%
Blood-pressure measurement	10	8.8%
Lipid testing	9	8.0%
Weight measurement	5	4.4%
Serum prolactin	0	0.0%
Glycated haemoglobin	0	0.0%

The mean number of contacts with outpatient services in the 12 months before assessment in the mood disorders service was 6.9 (standard deviation 7.7). Patients who had been admitted to hospital were more likely to have aspects of their physical health monitored (7 out of 12 patients, 58.3%) than those who had not been admitted (22 out of 101 patients, 21.8%: chi-square test $p = 0.006$).

Discussion

Our findings indicate there was scant physical-health monitoring in people with severe affective disorders referred to a tertiary care specialist service, even though most patients had had multiple contacts with health services in the 12-month period before their assessment in the service. The lack of documented evidence of screening despite good evidence of contact with services suggests that many opportunities to use primary-prevention measures to reduce the risk of subsequent diabetes and cardiovascular disease in a vulnerable population were often missed. It is intriguing that documented evidence of physical-health monitoring was significantly more common in patients with recurrent unipolar depressive disorder than in patients with bipolar disorder, as incentives relating to screening for physical ill-health in psychiatric patients have tended to focus on those with ‘severe mental illness’: this category typically encompasses patients with schizophrenia and bipolar disorder, but does not usually include patients with recurrent depression.

There is increasing awareness of the need for physical-health monitoring in people with severe mental illness, and this is being recognized in a

number of national and international guidelines. Current NICE guidelines in the UK recommend that people with severe mental illness should be monitored prior to the initiation of antipsychotic medication, 2–3 months later, and then annually. During the period of data collection, UK general practitioners were being ‘incentivized’ through the Quality and Outcomes Framework 2012/13 [Health and Social Care Information Centre, 2013] with targets to undertake physical-health checks in people with severe mental illness, and to undertake blood testing in those aged 40 years or older. It is therefore disappointing to see that screening rates in our studies appear to be so low, and no higher than in earlier studies. The impact of the Quality and Outcomes Framework is uncertain, but, in our sample, screening rates were higher in patients aged 40 years or older.

The study has a number of limitations. Monitoring might have been undertaken in primary care or outside the laboratories serving our region: we did not have access to primary-care records and several patients lived outside Southampton. Furthermore, monitoring could have been undertaken within local secondary mental healthcare services, but not recorded in the electronic or paper notes. The findings may only reflect local practice and might not generalize to other patient groups in different regions. Hence, there is a persistent need for further, larger and more comprehensive evaluations in other clinical settings. There are significant healthcare barriers to overcome to ensure that monitoring is undertaken [van Hasselt *et al.* 2013], such as reducing uncertainty within clinical teams about whose ‘responsibility’ it is to undertake screening [Crabb *et al.* 2009; Vasudev and Martindale, 2010], enhancing access to basic equipment, and improving the confidence of mental-health professionals in interpreting laboratory results [De Hert *et al.* 2011]. Although there are logistic challenges in arranging screening for people with severe mental illness, significant opportunities for screening and interventions to reduce morbidity and mortality are being missed.

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Conflict of interest statement

The authors declare no conflict of interest in preparing this article.

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