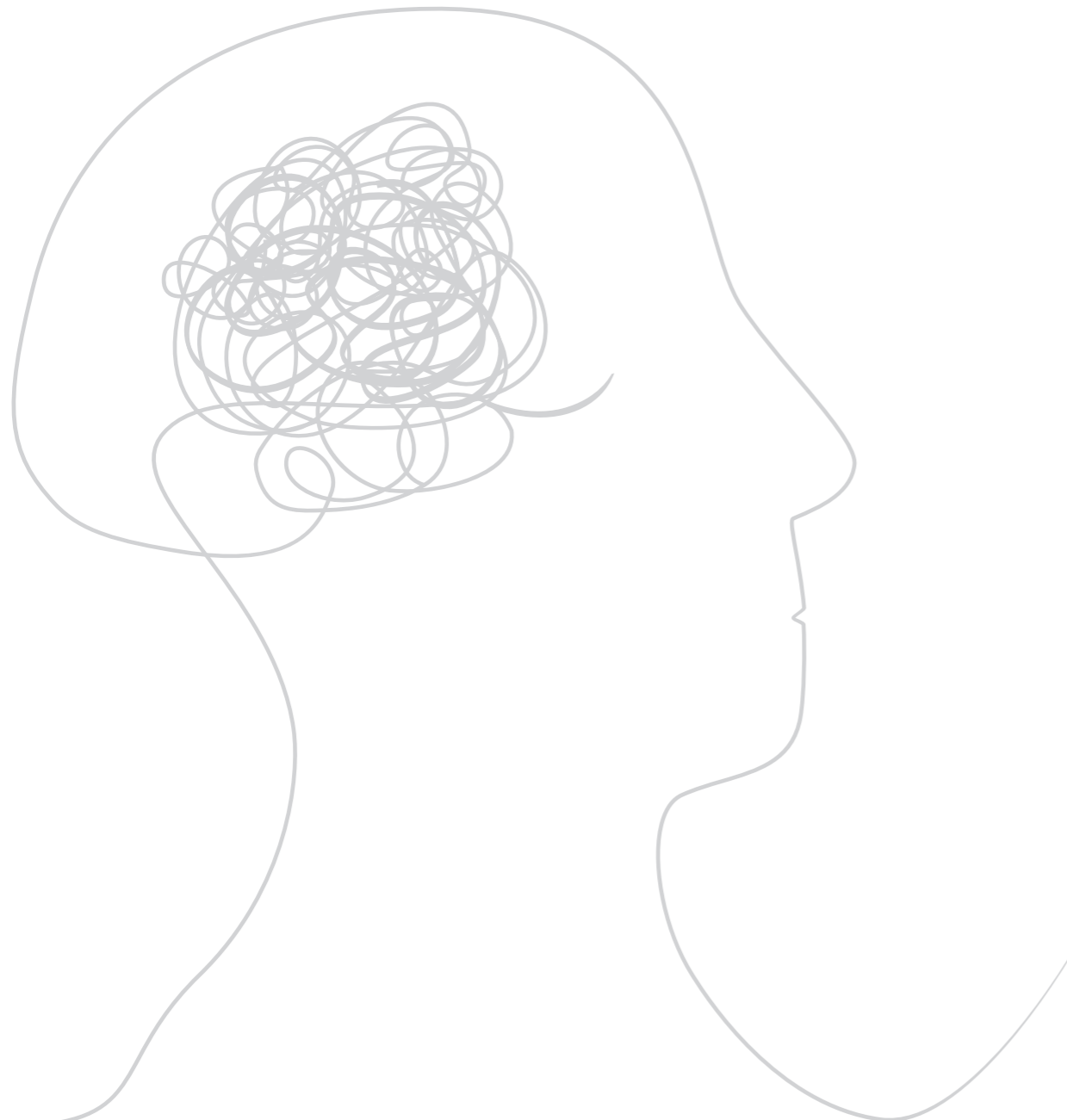


MENTAL HEALTH

Clinical Pathway Group

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1. EXECUTIVE SUMMARY BACKGROUND

The North West Mental Health Clinical Pathway Group has reviewed the provision of physical health care for people with severe mental illness in the region. The understanding of what the term severe mental illness means varies greatly. The Mental Health Clinical Pathway Group defines severe mental illness as:

"When an individual suffers periods of substantial disability in their capacity to manage themselves and their relationships with others; and is depleted in those resources needed to realise their intellectual and emotional potential, to the extent of being eligible for specialist mental health and social care services to enable their recovery and full participation in society".

Mental ill health has a significant impact on the region:

- The North West has the second highest number of incapacity benefit claimants in the region for mental illness.
- It is estimated that over one in five GP appointments are for mental health problems.
- In 2008-2009, 155,000 people sought help from specialist mental health services in the region. This is more than the number of people in the region with cancer or chronic obstructive pulmonary disease.
- Of these, over 60,000 are classified as having a severe mental illness. This is equal to nearly 1% of the population.

The group identified this stream of work as a major priority for the region for several reasons:

- People with severe mental illness have a reduced life expectancy of up to ten years compared to the rest of the population.
- There is an increased risk of physical health conditions such as cardiovascular disease and diabetes and these links are not entirely due to medication or lifestyle factors.
- Residents in the North West are more likely to smoke than the rest of the country, and people with severe mental illness already have increased rates of smoking.
- People with severe mental illness are less likely to receive adequate monitoring of their physical health and service users in the region have reported discrimination when trying to access physical health services. People from black and minority ethnic groups may also be less likely to access services.

AIMS

- To evaluate the evidence base for common physical health conditions, medication and health promotion in people with severe mental illness.
- To identify and showcase areas of best practice in the region. These services should provide high quality care that is innovative and productive and promotes prevention and early intervention.
- To make recommendations to ensure the best clinical, strategic and commissioning practice, so that the region provides the highest quality physical health care to people with severe mental illness.



RESULTS

We found that there is clear evidence of wide inequality with regards to physical health in people with severe mental illness. The Disability Rights Commission (now superseded by the Equality and Human Rights Commission) conducted an investigation 'Equal Treatment: Closing the Gap' in 2006 which looked at the health inequalities experienced by people with mental illness and/or learning disabilities in England and Wales.

- They found that rates of ischaemic heart disease, stroke, hypertension, diabetes and epilepsy were all higher in those with schizophrenia or bipolar disorder compared to the remaining population.
- Risk factors such as smoking and obesity were also found to be at a higher level in those people with mental illness than those without.
- There were some inequalities found when it came to recording physical health measures in those with severe mental illness, and levels of disease control and treatment were not as good in this population.
- The investigation also found that as well as having higher rates of physical health problems, people with mental illness were also more likely to develop these health problems at an earlier age and to die sooner from them.

From our work across the region, we were able to identify many examples of good practice which other services could draw upon.

- The North West has pockets of highly motivated people working to address the physical health needs of people with severe mental illness; however there still seems to be a prevalent attitude within mental health services that physical health care and promotion is not part of their responsibility.
- There is also wide variability of services across the region with disparity between what a service user can access depending on what area they are in.
- There is sometimes a lack of organisational structure to promote the agenda of physical health within mental health organisations and staff often do not feel that they have the time to communicate effectively with colleagues from outside their own organisations, leading to miscommunication about physical health care.

RECOMMENDATIONS

1. Mental Health Trusts should ensure that the promotion of high quality physical health care is embedded within their services at all levels. They should create a culture where physical health is as important as mental health and this should be reflected in the organisational structure, clinical care and environment.
2. All Mental Health Trusts should have an up to date Physical Health and Wellbeing Policy.
3. Mental Health Trusts must work in collaboration with Acute and Primary Care Trusts to provide high quality physical health services for people with severe mental illness.
4. All staff working in mental health should have adequate training in physical health, relevant to their level of training and responsibilities.
5. Inpatient environments should have facilities for service users to have sufficient physical activity and adequate areas and equipment for physical examinations and tests.
6. Staff working in general health settings should have an adequate awareness of severe mental illness, in order to reduce discrimination.
7. Information technology needs to develop so that it is possible to maintain accurate, up-to-date records and information on a patient's care. There needs to be a reduction in duplication and omission. Data that is collected needs to be used effectively to improve patient outcomes.
8. Primary Care commissioning should continue to include services that support full engagement of service users with health promotion initiatives.
9. People with severe mental illness should be offered an annual physical health review.
10. Careful consideration of physical health issues should be given to any antipsychotic prescribed, with the service user's medical history, choice and lifestyle all taken into account. Side effects should be monitored carefully throughout treatment.

2. INTRODUCTION

The NHS North West Mental Health Clinical Pathway Group believes that the current provision of physical health care for people with a severe mental illness in the region is in need of change. We know that those with severe mental illness die up to ten years earlier (Nocon, 2006) and that the general population in the North West die on average 3 years younger than the England average. Combined, these make for startling facts and the CPG fundamentally believes that these inequalities must and will have to change if the region is to deliver the highest quality care to its entire population. The link between poor mental health and physical health has been known for decades (Philips, 1934), we believe the time to act is now.

NHS North West commissioned a report, A Better Future in Mind, into the state of mental health services in the region. It identified three key areas of work for the region; the need to engage service users, carers and the public, strengthening commissioning and investment and the development of staff. These streams of work are being addressed by the Mental Health Improvement Programme. A Better Future in Mind criticised services for focusing on treating illness as opposed to avoiding it (NHS North West, 2008). The Commission identified that many service users and carers were unhappy with the quality of care that they received. It is hoped that the recommendations contained within this document will help to address the problem, ensuring access to high quality care that looks at the person as a whole.

2.1 What is severe mental illness and how does it affect the North West?

The understanding of what the term severe mental illness is varies greatly, from definition by diagnosis to definition by a reduction in level of functioning. The Mental Health Clinical Pathway Group defines severe mental illness as

"When an individual suffers periods of substantial disability in their capacity to manage themselves and their relationships with others; and is depleted in those resources needed to realise their intellectual and emotional potential, to the extent of being eligible for specialist mental health and social care services to enable their recovery and full participation in society".

A Better Future in Mind defined mental illness as "conditions with clear symptoms that lead to a formal diagnosis" and "severe and enduring mental illness as an illness which is likely to be serious, long lasting and relapsing" (p.7, NHS North West, 2008).

Mental ill health has a dramatic impact on the region. The North West has the second highest number of incapacity benefit claimants in the region for mental

illness. It is estimated that over one in five GP appointments are for mental health problems. In 2008-2009, 155,000 people sought help from specialist mental health services in the region. This is more than the number of people in the region with cancer or chronic obstructive pulmonary disease. Of these, over 60,000 are classified as having a severe mental health problem. This is equal to nearly 1% of the population.

2.2 Findings of the Disability Rights Commission

It is well known from international evidence that people with severe mental illness die up to 10 years earlier than the general population (Nocon, 2006). The Disability Rights Commission or DRC (now superseded by the Equality and Human Rights Commission) was set up in 2000 as an independent body established to stop discrimination against disabled people and promote equal opportunities. They conducted an investigation 'Equal Treatment: Closing the Gap' (DRC, 2006) which looked at the health inequalities experienced by people with learning disabilities and/or severe mental illness in England and Wales. The report on their findings and recommendations was published in October 2006 and showed some startling inequalities.

The DRC acknowledged that the terms 'mental health problem' and 'learning disability' could encompass a large variety of problems. They decided to look at people who were likely to be protected by the Disability Discrimination Act (2005) due to their mental health problem or learning disability. They stated that they therefore focused on people with long term conditions that had a significant adverse effect on them, including severe depression or schizophrenia, for example.

However, for the purposes of the analysis of general practice data conducted by QResearch (Hippisley-Cox and Pringle, 2005) as part of the DRC's investigation, only people with a recorded diagnosis of schizophrenia or manic depression (their terminology) were included. The analysis found that the prevalence of schizophrenia was 2.23 per 1000 population, whilst the prevalence of manic depression was 1.56 per 1000 population, and both were more common in middle age.

The analysis revealed some alarming statistics regarding levels of co-morbidity in people with mental illness. Rates of ischaemic heart disease, stroke, hypertension, diabetes and epilepsy were all higher in those with schizophrenia or bipolar disorder compared to the remaining population, as the following figures show:

- The rate of ischaemic heart disease was 4% in those with schizophrenia and 5% in those with bipolar disorder, compared to 3% in the remaining population.
- The rate of stroke was 2% in those with schizophrenia and 1.5% in those with bipolar disorder, compared to 1% in the remaining population.
- The rate of hypertension was 12% in those with schizophrenia and 15% in those with bipolar disorder, compared to 10% in the remaining population.
- The rate of diabetes was 6% in those with schizophrenia and 4% in those with bipolar disorder, compared to 2% in the remaining population.
- The rate of epilepsy was 0.7% in those with schizophrenia and also 0.7% in those with bipolar disorder, compared to 0.3% in the remaining population.

Risk factors were also found to be at a higher level in those people with severe mental illness than those without:

- The percentage of smokers was 61% in those with schizophrenia and 46% in those with bipolar disorder, compared to 33% of the remaining population.
- The rate of obesity was 33% in those with schizophrenia and 30% in those with bipolar disorder, compared to 21% of the remaining population.

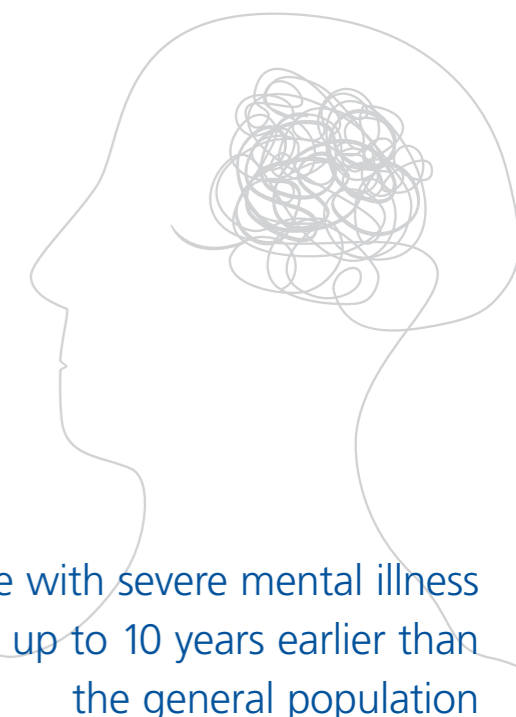
Prevention was also an area where the analysis showed some inequalities. With regards to screening for cervical and breast cancer, women with schizophrenia had lower rates of cervical screening in the last 5 years than the rest of the population, whilst women with schizophrenia and women with bipolar disorder both had lower rates of mammography than the rest of the population.

There were also some differences found when it came to recording physical health measures and levels of disease control. The analysis found that people with both schizophrenia and ischaemic heart disease were less likely than the remaining population to have had a blood pressure reading or a recent cholesterol test, and that people with schizophrenia

who had had a stroke were less likely to have had a cholesterol test in the last 15 months than the remaining population. Out of those who did have a cholesterol test done, only 52% had a level below 5 mmol/l, compared to 63% of patients who had had a stroke and did not have schizophrenia. There was also inequality when it came to treatment, with 63% of those who had had a stroke and had schizophrenia on aspirin in the last 15 months, compared to 68% of stroke patients without mental illness.

The DRC investigation also looked at statistics regarding cancer. They found that women with schizophrenia were 42% more likely than other women to develop breast cancer and that people with schizophrenia were 90% more likely than the general population to develop bowel cancer (Hippisley-Cox et al, 2006a). This finding regarding bowel cancer was the first such finding internationally.

The investigation found that as well as having higher rates of physical health problems, people with mental illness were also more likely to develop these health problems at an earlier age and to die sooner from them. The rates of coronary heart disease, diabetes, stroke and respiratory disease occurring under the age of 55 were all higher in those with schizophrenia than those without and the clinical data analysis also showed that five year survival rates for many physical health problems were lower in those with schizophrenia or bipolar disorder than the general population (Hippisley Cox et al, 2006b, cited in DRC, 2006 pp.26). This included survival rates for coronary heart disease, diabetes, stroke and respiratory disease.



3. PHYSICAL HEALTH PROBLEMS IN SEVERE MENTAL ILLNESS

3.1 The European Psychiatric Association's position statement on cardiovascular disease and diabetes

In 2009, the European Psychiatric Association (EPA) published a position statement regarding cardiovascular disease and diabetes in people with severe mental illness (De Hert et al, 2009). The authors included two from the United Kingdom and the statement was supported by the European Association for the Study of Diabetes (EASD) and the European Society of Cardiology (ESC). The EPA stated that by publishing this joint statement with the EASD and the ESC they aimed to improve the care of patients with severe mental illness by increasing awareness amongst healthcare professionals of cardiovascular disease and diabetes and by promoting improved collaboration between different healthcare professionals.

The EPA developed their position statement based on a review of the evidence regarding the risk of cardiovascular disease and diabetes in patients with severe mental illness. They included schizophrenia, depression and bipolar disorder as severe mental illnesses. Unsurprisingly, their review of the evidence showed that people with severe mental illness die earlier than the general population and have poorer physical health.

One study included was a recent systematic review of mortality in schizophrenia, looking at standardized mortality ratios (SMRs) from 37 relevant studies spanning 25 different countries (Saha et al, 2007). They found that the median SMR for all causes of death was 2.58. Dividing causes of death into natural and unnatural causes gave median SMRs of 2.41 and 7.50 respectively. Within the unnatural causes category, the median SMR for suicide was 12.86 whilst for accidents it was 1.73. Although suicide was associated with the highest SMR in people with schizophrenia, all of the major natural cause of death categories showed an increase except for cerebrovascular diseases, which had a median SMR of 0.69.

Saha et al (2007) found that people with schizophrenia were almost twice as likely to die from cardiovascular disease as the general population. Of note, they also found that the SMR for all causes in people with schizophrenia has increased over the three decades which the review covered, from a median SMR of 1.84 in the 1970s to a median SMR of 3.20 in the 1990s. This is alarming as the 1990s heralded the introduction of the new second generation antipsychotics. There is concern about the potential side effects of this group of drugs, particularly with regards to weight gain and metabolic syndrome, which could in turn lead to cardiovascular problems and increased mortality. The long term effects of these antipsychotics may take several years to

become apparent and so there is scope for the increased SMR in people with schizophrenia to rise even further in the future.

The EPA's evidence review found that rates of cardiovascular disease are also increased in people with depression and bipolar disorder. Amongst people with severe mental illness, the EPA statement identified cardiovascular disease as the commonest cause of death due to several different factors. All of the following are more common in people with severe mental illness, therefore increasing their risk of cardiovascular disease:

- Smoking
- Obesity
- Hypertension
- Diabetes
- Dyslipidaemia
- Positive family history of diabetes
- Chronic elevation of stress hormones

The effects of treatment can also contribute to the increased risk of cardiovascular disease, with antipsychotic medication leading to possible increased weight or affecting other relevant metabolic factors. The EPA acknowledged that the evidence regarding the effects of mood stabilisers and antidepressants is not as strong as that for antipsychotics.

Goff et al (2006) conducted a study comparing the ten year risk of coronary heart disease in patients with schizophrenia from the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) with matched controls. They found that amongst the patients with schizophrenia, rates of smoking, diabetes and hypertension were significantly higher and that they had significantly lower levels of HDL cholesterol. 68% of the patients with schizophrenia smoked compared to 35% of the control subjects, 13% had diabetes compared to 3% of the control subjects and 27% had hypertension compared to 17% of the control subjects. They found no significant difference in total cholesterol levels between the two groups. As expected, the ten year risk of coronary heart disease was significantly higher in the patients with schizophrenia even after controlling for body mass index.

The EPA found that even when metabolic problems are already present, there can be ineffective management of these. Inadequacies were found when it came to the treatment of diabetes and other risk factors for cardiovascular disease, namely hypertension and dyslipidaemia, in people with schizophrenia. A study using the data from the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE)

schizophrenia trial at baseline found that the rate of non treatment was 88% for dyslipidaemia, 62.4% for hypertension and 30.2% for diabetes (Nasrallah et al, 2006).

It is of course difficult to differentiate between the impact of lifestyle factors and the impact of medication on cardiovascular disease risk factors. For example, weight gain may be due in part to an unhealthy diet or little exercise. The EPA's evidence review indicated also that metabolic abnormalities may already be present at first presentation for schizophrenia and that the processes involved in psychiatric illness itself may also independently lead to cardiovascular disease.

The EPA reported that disagreement regarding who should take responsibility for their physical healthcare has led to inadequate care for people with severe mental illness. Ironically despite the increased risk of cardiovascular disease and diabetes, people with severe mental illness have less screening and prevention opportunities than the rest of the population.

The EPA emphasises the need for both psychiatric services and primary care services to ensure people with severe mental illness have access to appropriate services. Diabetes and other risk factors for cardiovascular disease should be identified and treated, with involvement of other specialities if needed.

As with cardiovascular disease, the reasons for the increased rate of diabetes in people with severe mental illness are likely to be varied and include environmental and genetic factors as well as effects of medication and the disease process itself. The EPA proposes that most of the increased risk is likely to be due to an increase in the same risk factors that apply to the general population, such as obesity, inactivity and a positive family history. They acknowledged a lack of research on the effect of these risk factors in patients on antipsychotics. The relationship between depression and diabetes appears to show causality in both directions, with an increased risk of depression in people with diabetes and an increased risk of diabetes in people with depression, possibly due to metabolic changes.

3.2 Assessment of risk for cardiovascular disease

The European Guidelines on the prevention of cardiovascular disease (European Society of Cardiology, 2007) prioritise three groups of the population for targeted risk management: people with known cardiovascular disease; people with a high risk either due to several risk factors, diabetes (type 1 and 2) with microalbuminuria or particularly high individual risk factors; and people at increased risk due to family history. Management of risk factors for the rest of the population is recommended to be based on the total cardiovascular disease risk, which is determined by age, sex, smoking status, systolic blood pressure and total cholesterol, or the ratio of total cholesterol to HDL cholesterol. The total risk is calculated using the Score risk charts, which take all the above factors into account but focus management at women over 55 and men over 50. However, the guidelines also include a relative risk chart (European Society of Cardiology, 2007: p.E14 Fig 6) which calculates risk based on smoking status, total cholesterol and systolic blood pressure, so that younger people who are at a high risk can be managed appropriately.

The EPA recommends that people with severe mental illness should have their cardiovascular disease risk factors managed based on their relative risk, using the chart just referenced. This is due to their finding that people with severe mental illness appear to differ from the populations that the cardiovascular risk scoring systems (including Score and Framingham) are based on, in that they tend to be younger, have increased blood pressure and are more likely to smoke. There is a lack of a validated risk scoring system for people with severe mental illness at present despite the evidence of their increased risk of cardiovascular disease, hence the EPA's recommendation. They also advise that if someone with severe mental illness has significantly raised individual risk factors then these may need to be managed on an individual basis.

There are limitations to how applicable the above recommendations by the EPA are to practice in the UK, given that the Joint British Societies' guidelines on the prevention of cardiovascular disease decided to continue using the Framingham system to calculate risk rather than the Heart Score system previously discussed despite identifying limitations with both (British Cardiac Society et al, 2005: ---18). In their guidance on lipid modification, NICE (2008a) also recommend use of the Framingham system to assess a patient's risk of cardiovascular disease. However, it is encouraging that the issue of calculating risk in people with severe mental illness is being addressed in Europe.

3.3 Screening for risk factors for cardiovascular disease

Many people who have severe mental illness may not have adequate access to healthcare services. Whilst assessing the risk of cardiovascular disease in the general population usually occurs in primary care, the EPA suggests that secondary care services e.g. psychiatrists may be in the best place to coordinate and manage the risk of cardiovascular disease in those with severe mental illness, albeit as part of shared care with specialist and general services. This is in contrast to the recommendations from NICE and the Royal College of Psychiatrists, outlined later, which advise that primary care should monitor physical health.

The EPA recommends that at initial assessment the following should be assessed:

- Past medical history of cardiovascular disease, diabetes or any other related disease
- Family history of early cardiovascular disease, diabetes or any other related disease
- Smoking status
- Weight, height, body mass index and waist circumference
- Blood pressure (average of two readings), heart rate, peripheral pulses (foot) and auscultation of heart and lungs
- ECG
- Fasting blood glucose
- Fasting blood lipids to include total cholesterol, triglycerides, HDL cholesterol and LDL cholesterol (by calculation)

If initial assessment of the above is normal, then the EPA recommends that tests are repeated 6 weeks and 12 weeks after commencement of antipsychotics if this occurs, and then at least annually, depending on any risk factors present. They also advise that after commencing antipsychotics, weight should initially be measured weekly. If a patient has diabetes then they advise checking HbA1c approximately every 3 months.

3.4 Management of risk factors for cardiovascular disease

The EPA's recommended cardiovascular risk assessment and management protocol for people with severe mental illness is shown in figure 1. In their statement they outline the management of smoking, weight, diabetes, dyslipidaemia, hypertension and adverse drug side effects. The issues of smoking and weight are addressed in the later section on health promotion. The other physical health problems are outlined later in this section.

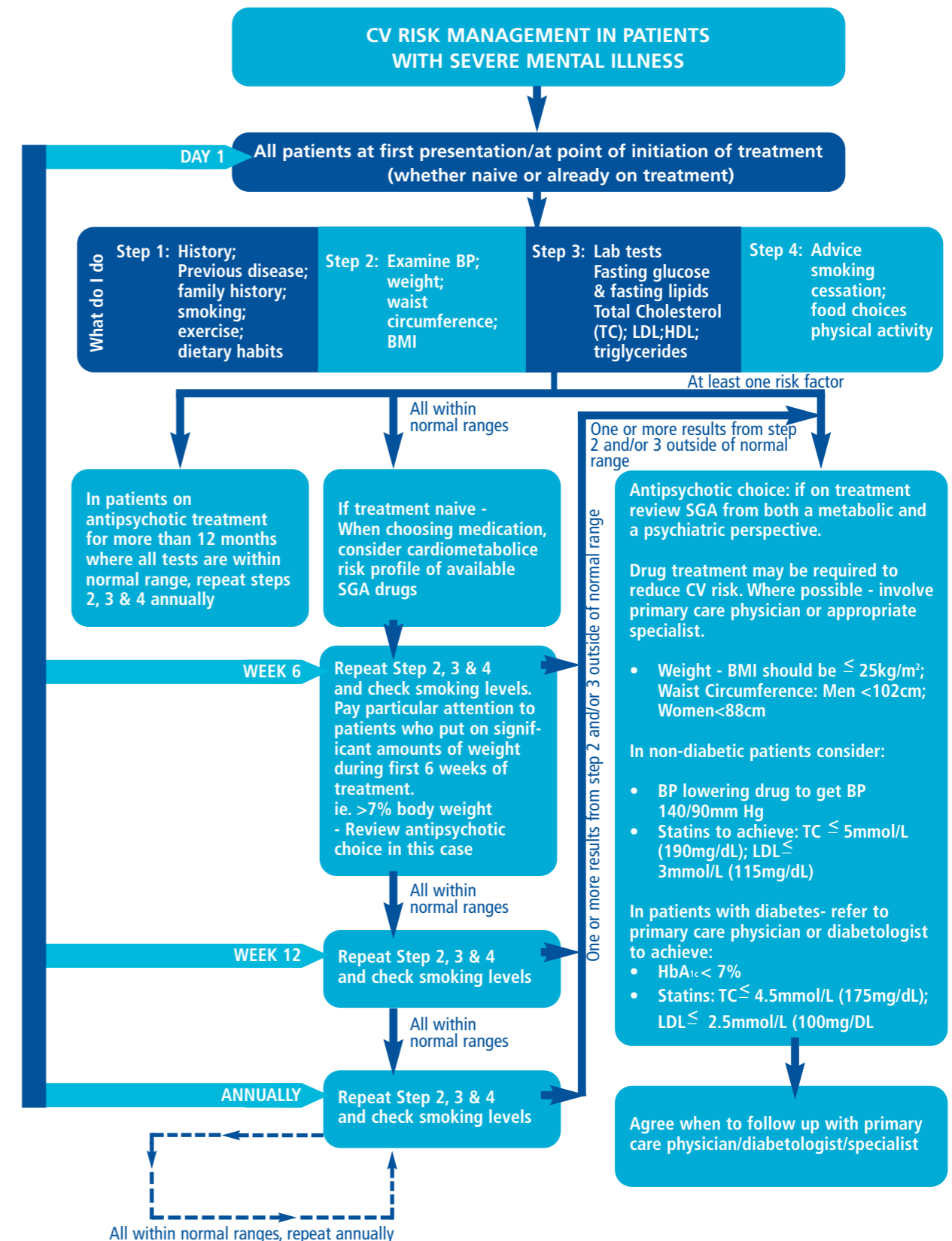
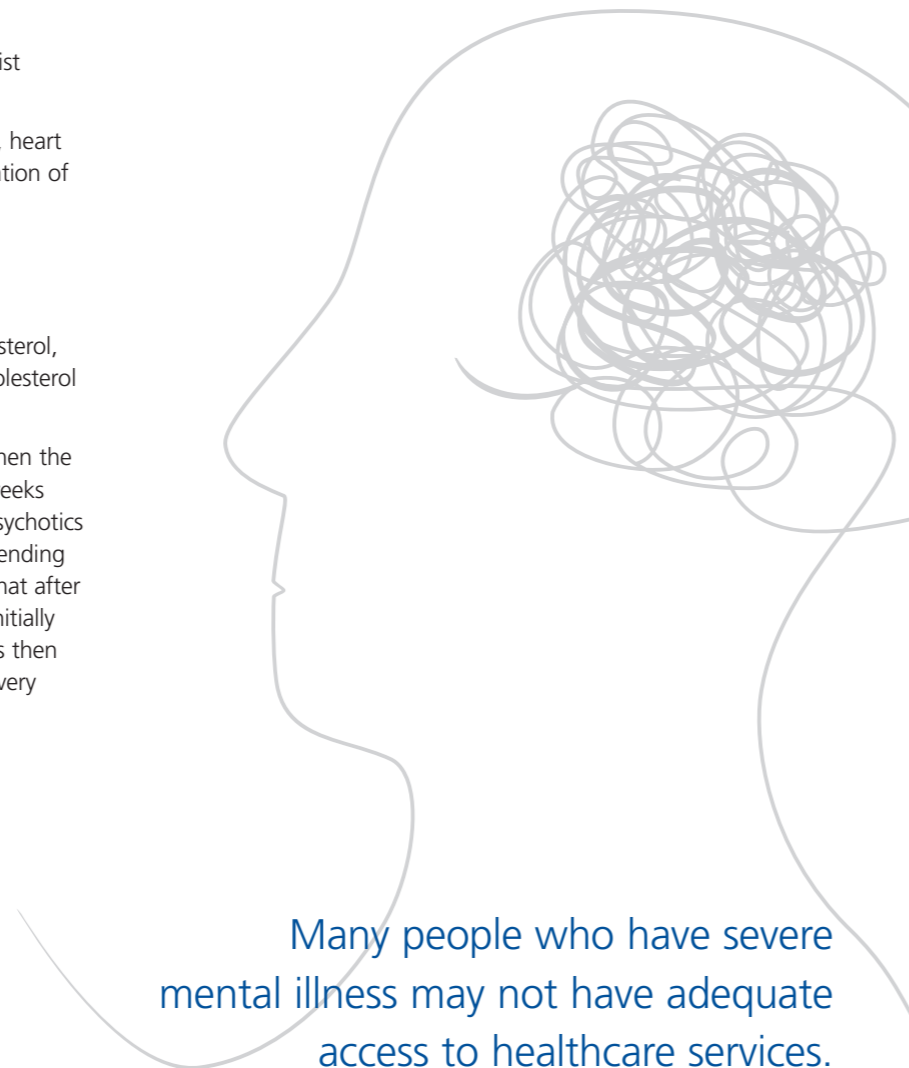


FIG. 1. Cardiovascular risk management in people with severe mental illness (De Hert et al, European Psychiatric Association, 2009)

3.4.1 NICE guidance

We have highlighted the EPA's recommendations as they are generally more prescriptive and comprehensive than the various guidelines originating in the UK. As outlined later in the section looking at national schemes and drivers behind the services people in the North West currently receive, some important guidelines in the UK involving the physical health of people with severe mental illness are the ones from NICE on bipolar disorder (2006), schizophrenia (2009a) and depression (2009b and 2009c). These guidelines, however, cover the complete management of these conditions and the guidance relating specifically to physical health is variable in detail. The guidance for bipolar disorder is a lot more directive than that for schizophrenia, as described in the section on national schemes. Furthermore, the NICE guidance for mental health tends to group all physical health conditions into one section, as the guidance is divided according to type of mental illness e.g. schizophrenia or depression, rather than type of physical health condition e.g. cardiovascular disease or diabetes. Once a risk or problem is identified the guidance then directs the practitioner to follow the appropriate NICE guidance e.g. their lipid modification guidance (NICE, 2008a) if dyslipidaemia is found.

In their guidance on schizophrenia, NICE (2009a) do make it clear that the physical health monitoring of people with schizophrenia, as with other high risk groups, should be carried out in primary care. They advise that regular physical health checks should be provided and the appropriate NICE guidance followed. The results of the physical health checks should be documented clearly in primary care, communicated to the care coordinator or psychiatrist and then again documented in the secondary care notes. They do acknowledge that the effectiveness of these monitoring regimes in people with schizophrenia has not been evaluated in a randomised controlled trial.

With regards to specific recommendations by NICE, they advise that people with schizophrenia should have a physical health check in primary care at least once a year (regardless of age). Within this health check, there should be a focus on cardiovascular disease risk assessment as outlined in the NICE guidance on lipid modification (2008a) but it should be taken into account that the risk of cardiovascular disease is higher than in the general population. Of note, in their lipid guidance NICE advise that the Framingham equations should be used to assess the risk of cardiovascular disease. This contrasts with the EPA recommendations, as previously outlined. The other recommendations are not very prescriptive; they advise that people with

schizophrenia who have an increased risk of cardiovascular disease, due to hypertension or obesity for example, should be identified as early as possible and their care then managed using the appropriate NICE guidance on preventing these conditions. If a person with schizophrenia already has cardiovascular disease and/or diabetes then NICE advise they should be treated according to the appropriate NICE guidance.

3.4.2 Royal College of Psychiatrists guidance

The Royal College of Psychiatrists is another important source of guidance. Their report on physical health in mental health (Royal College of Psychiatrists, 2009), also outlined later in the section on national schemes and drivers, included recommendations for care in various settings. The report included guidance with regards to monitoring patients on second generation atypical antipsychotics, due to the increased risk of cardiovascular disease through weight gain or metabolic derangements. They also advised that the increased risk of cardiovascular disease associated with severe mental illness alone justifies screening for risk factors. The Royal College suggested that the following should be assessed in people with severe mental illness who are prescribed second generation atypical antipsychotics:

- Current and previous smoking status
- Body mass index and/or waist circumference
- Blood pressure
- Random or fasting glucose
- Lipids including cholesterol, LDL cholesterol and HDL cholesterol, and triglycerides
- Baseline ECG desirable

The Royal College of Psychiatrists go on to suggest that good practice would be to measure the above at baseline, at 10-16 weeks and then annually. The recommended monitoring in the initial phase of treatment is therefore less frequent than that advised by the EPA in their position statement. The Royal College do state that the recommended frequencies for monitoring people who are starting on an atypical antipsychotic vary internationally and that appropriate timings of monitoring will depend on the frequency of contact and the practicalities of the treatment setting, such as resource availability.

With regards to the responsibility for screening and for the management of abnormal results, the Royal College state that most practitioners agree that primary care is the best setting for the majority of physical health monitoring, but that the prescriber

needs to ensure that physical health monitoring does take place. They also acknowledge that whilst psychiatrists should be able to detect and to minimise any physical health side effects of the drugs they prescribe, they should liaise with other specialist services or primary care in the interpretation and management of abnormal findings which fall outside their scope of expertise.

Other forms of guidance on the physical health monitoring of people with severe mental illness is provided through the Quality Outcomes Framework and the guidance from RETHINK on the Physical Health Check. Both of these are addressed in section 6.

3.5 Diabetes

As already described, people with severe mental illness have a higher risk of diabetes which in turn is a risk factor for cardiovascular disease, as well as an independent higher risk of cardiovascular disease in itself. If diabetes is not detected or not adequately controlled then complications are likely, including diabetic kidney disease, neuropathy and retinopathy.

New diagnostic criteria for diabetes were produced by the World Health Organisation in 1999. If a person has symptoms of diabetes and either a random plasma glucose of 11.1 mmol/l or more, a fasting plasma glucose of 7.0 mmol/l or more, or a plasma glucose of 11.1 mmol or more following an oral glucose tolerance test then they meet the criteria for a diagnosis of diabetes. If a person is asymptomatic then they need at least two blood tests to confirm the diagnosis. These criteria are no different in people with severe mental illness. Once diabetes is diagnosed, glycaemic control can be monitored using HbA1c monitoring.

NICE advise that if diabetes is diagnosed in a patient with severe mental illness then the appropriate general NICE guidance should be followed. The EPA do note in their statement that psychiatric centres should cooperate with diabetes centres to establish shared care of patients who have both mental illness and diabetes. They also advise that patients who are on insulin and are in a psychiatric unit should have access to a specialist practitioner in diabetes on request.

The EPA also recommend that people with severe mental illness and impaired fasting glucose may need closer monitoring than people without mental illness who have impaired fasting glucose, due to the already increased risk of cardiovascular disease in this group. People with impaired fasting glucose have a higher risk of developing diabetes and cardiovascular disease than the general population, as do people with impaired glucose tolerance. Both of these conditions can be classified within the

category of impaired glucose regulation. Diabetes UK considers the risk factors for impaired glucose regulation (IGR) to be the same as those for type 2 diabetes, therefore including severe mental illness as a risk factor for IGR. They recommend that people with IGR should be monitored annually to review tests, cardiovascular disease risk and lifestyle changes. They do state that some people may need to be followed up more regularly, for example if they are at a higher risk and that discretion should be used in these cases (Diabetes UK, 2009). This could perhaps be applied to people with severe mental illness.

Lastly, with regards to preventing diabetes the EPA found in their review that there is some preliminary evidence that metformin in people with severe mental illness can improve insulin sensitivity, glucose and HbA1c. They suggest, therefore, that the use of metformin could be considered in people with severe mental illness at a high risk of developing diabetes.

EPA guidance is that all people with severe mental illness should have a baseline fasting glucose taken. This should then be repeated prior to starting and or changing antipsychotic treatment, and at weeks 6 and 12 after commencement. It should then be carried out annually.

3.6 Dyslipidaemia and hypertension

As previously discussed, there are no specific guidelines for the management of abnormal lipids or hypertension in people with severe mental illness compared to the general population. The EPA state in their position statement that statins have been demonstrated as effective in the management of dyslipidaemia in people with severe mental illness, and also highlight the need for psychiatrists to be aware of monitoring requirements if they are involved in managing a patient's lipids.

To treat dyslipidaemia or hypertension, lifestyle changes may be required either alone or in conjunction with medication depending on severity. These may include dietary changes, exercise, losing weight or stopping smoking. This is an area where people with severe mental illness may have different needs to the general population and health promotion is discussed later in this report.

3.7 Cancer

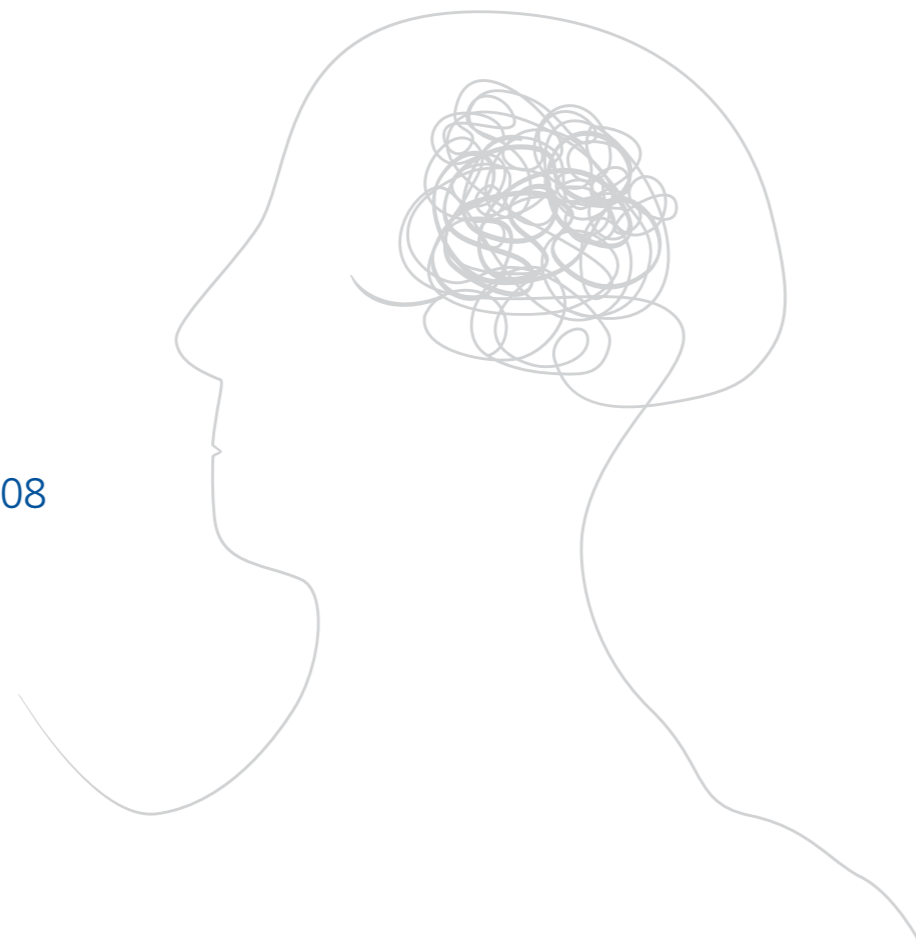
In general, the evidence for the relationship between severe mental illness and cancer is unclear. It could be hypothesised that due to a more unhealthy lifestyle, such as increased rates of smoking and obesity in people with severe mental illness, some cancers may be more likely. The physical health care of people with severe mental illness should include awareness of the risk of cancer, as in the general population, and efforts made to improve lifestyle and reduce risk factors such as smoking.

3.8 Other physical health conditions

Whilst the physical health conditions outlined above are those most commonly linked to severe mental illness, it is important to consider other conditions that may occur in this population. For example, if risk factors such as smoking and increased alcohol or substance abuse are more prevalent, then we should be aware of the risk of chronic obstructive pulmonary disease, liver disease and neurological problems amongst others. It is therefore important to firstly manage risk factors as part of the prevention agenda, as outlined in the section below on health promotion. If physical illness is already present then it is important to consider that people with severe mental illness may have difficulty expressing their symptoms or engaging with healthcare services. It is important that these services are as accessible as possible to this population.

3.9 Gaps in information

- There was a lack of available studies looking at the complex needs of people with severe mental illness from BME communities.
- There is also a need for more research into clinical and cost effectiveness of monitoring for physical health conditions in this population. This should be considered on a long term time scale, as studies often follow up for short terms (e.g. less than one year).
- There is a possible need for a validated tool for the risk assessment and management of cardiovascular disease in people with severe mental illness.
- There is concern about the long term effect of the second generation atypical antipsychotics, and the possible future increase in mortality and morbidity due to these.
- There is a general trend for increasing life expectancy in the UK, leading to an increasing number of older adults with long term physical and mental health conditions. This has a number of implications for management and service provision for both areas of health care.
- One area of development is the skill mix of the current workforce and developing it so it is fit to meet the evolving needs of service users.



The national expenditure on antipsychotic medication in 2008 was £276,878,600

4. MEDICATION MANAGEMENT

4.1 Prescribing in mental health

The national expenditure on antipsychotic medication in 2008 was £276,878,600; a 16-fold increase in the 15 years since 1993. The second generation antipsychotic olanzapine comprised 43% of the total spending on antipsychotic drugs and represented 34% of antipsychotic prescribing. Individual first generation antipsychotics that have been shown to retain a notable share of current antipsychotic prescribing are chlorpromazine, haloperidol, trifluoperazine, sulpiride and promazine.

Comparison of Greater Manchester antipsychotic prescribing with the above figures showed that quetiapine represented a higher proportion of antipsychotic prescribing and risperidone a lower proportion. The prescribing of second generation antipsychotic drugs as a percentage of total antipsychotic prescribing is lower locally than that seen in the national picture.

4.2 Side effects and adverse effects

The NICE Schizophrenia Guidelines (2009) recommend that the side effects of antipsychotic treatment should be monitored and recorded regularly and systematically throughout treatment and especially during the titration phase of treatment. Outcome 9 (Medicine Management) of the Care Quality Commission (CQC) registration process requires that adverse effects of medication should be monitored and addressed with an action put in place to manage side effects and adverse effects where they occur. There is also a requirement that an individual's pre-existing medical condition, choice and lifestyle should be taken into account when prescribing takes place.

All the antipsychotics have a range of side effects that can affect the person's long term physical health. These range from movement disorders to weight gain and metabolic adverse effects. These have been discussed at length throughout the document.

There are some side effects which are directly influenced by the choice of the individual medication e.g. the increased risk of developing diabetes with olanzapine and clozapine and an increased risk of the development of osteoporosis as well as a tentative link with breast cancer resulting from the sustained elevation of prolactin levels with certain drugs. It is therefore essential that a patient's pre-existing physical health condition should be considered when deciding on the choice of medication. The patient should be placed at the centre of the decision making process around prescribing.

4.3 Prescribing choice

NICE does not suggest which antipsychotic should be used first line and there has been increasing pressure across the NW to suggest a first line atypical. This would be contrary to the spirit of choice laid out in NICE.

It is recognised however that certain atypical antipsychotics are available in a generic form. The availability of generics changes regularly however in 2009 the only available generic atypical antipsychotic is risperidone. Olanzapine is the next generic expected around September 2010, Quetiapine expected March 2012. The benefits to using generic risperidone may however be outweighed by the availability of risperidone long acting injection and the possible increase in movement to using this in place of the older typical depot antipsychotics.

4.4 Medication adherence

The NICE Clinical Guideline 76 focuses on medication adherence and the need to support people to make an informed choice on which medication to take. Adherence can be subdivided into intentional and unintentional with many inter-dependent factors affecting why patients adhere with medication. Patients make individual choices as to why they choose to adhere with medication regimes, there is however evidence to support that where patients and their carers are involved in the decision making process this can result in improved adherence. Evidence from effectiveness studies would suggest that effectiveness is a much broader concept than the efficacy of individual antipsychotics with one definition saying that treatment effectiveness is a combination of the direct efficacy of treatment plus treatment adherence, treatment burden and individual factors including relationship with the prescriber. Side effects and adverse effects are one of the factors in the decision making process around adherence.

NICE sets out the principle in the clinical guidelines that patients and their carers should have access to sufficient information in order to make an informed choice concerning their medication. Information needs to be provided in a manner which allows patients to make an effective comparison. The Lancashire Care NHS Foundation Trust has developed a range of comparative leaflets which provide information in a user friendly way to assist patients in making an informed choice. Information is also available from recognised internet sites including the Royal College of Psychiatrists and the choice and medication website established by the UKPPG (www.choiceandmedication.org.uk).

4.5 Polypharmacy

Polypharmacy is defined as the co-prescribing of two or more antipsychotics and often results in high doses of antipsychotics being prescribed. The NICE Schizophrenia Guideline highlights the increased risk with high dose antipsychotic prescribing. The Royal College of Psychiatrists has also produced a set of recommendations for monitoring patients who are prescribed high dose antipsychotics.

A number of projects have been undertaken in Greater Manchester under the auspices of the SIGMA (Schizophrenia in Greater Manchester) project examining the reasons and prevalence of poly-pharmacy and considered interventions to reduce this practice.

The research question used for the SIGMA project was:-

There is evidence that patient choice may play a role in antipsychotic prescribing; poly-pharmacy may reflect the treatment preferences of the patient, combined with the treatment experiences of the clinician. In order to learn more about this process, it is necessary to learn more about the outcomes valued by psychiatrists and the treatment preferences of the patient, and to gather and record data when clinicians believe that poly-pharmacy is effective in the treatment of schizophrenia.

Polypharmacy is associated with the receipt of high doses and with patient demographic and illness characteristics (longer duration of illness, older age, lower global functioning score and higher adherence rating). Low rates of clozapine prescribing have been shown to be linked to higher levels of poly-pharmacy.

4.6 Stopping medication

The issue of whether maintenance treatment is required by all patients with a diagnosis of schizophrenia has been reviewed by NICE. It is reported that around 20% of patients will only experience a single episode however identifying this group is not possible and therefore NICE concluded that pharmacological relapse prevention should be considered for every patient who is diagnosed with schizophrenia. NICE recommends that: -

- In the early period of recovery following an acute episode, service users and healthcare professionals will need to jointly reflect upon the acute episode and its impact, and make plans for future care.
- Inform the service user that there is a high risk of relapse if they stop medication in the next 1–2 years.
- If withdrawing antipsychotic medication, undertake this gradually and monitor regularly for signs and symptoms of relapse.

- After withdrawal from antipsychotic medication, continue monitoring for signs and symptoms of relapse for at least 2 years.

4.7 The Prescribing Observatory for Mental Health (POMH-UK)

The Prescribing Observatory for Mental Health (POMH-UK) runs a national audit-based quality improvement programme open to all specialist mental health services in the UK. The aim is to help mental health services to improve prescribing practice in discrete areas.

The POMH-UK programme includes aspects of physical health monitoring in a number of audits, these include: -

- Prescribing of high dose antipsychotics on adult acute and intensive care wards
- Medicines reconciliation
- Screening for metabolic side effects of antipsychotic drugs in patients treated by Assertive Outreach Teams
- Assessment of side effects of depot antipsychotics
- Use of antipsychotic medicine in people with Learning Disabilities
- Monitoring of patients prescribed lithium
- Use of antipsychotic medicine in CAMHS

The standards for each of the audits are derived from a number of sources as well as expert opinion. The results provide an opportunity to benchmark practice across the country and to allow for targeted improvement to address the findings. The programme also develops packages to assist Trusts in improving their outcomes many of which are physical health orientated.

4.8 Antipsychotic use in dementia

In 2008, the government asked Professor Sube Banerjee to carry out an independent report about the use of antipsychotic medication for people with dementia in the NHS in England. Professor Banerjee is a professor of mental health and ageing at the Institute of Psychiatry, part of King's College London.

The report makes several recommendations, mainly that people with dementia should receive antipsychotics only when they really need them, and that reducing their use in this group should be a priority for the NHS. It suggests this can be achieved by various means including training carers and medical staff to use alternatives to antipsychotics, providing psychological therapies for people with dementia and their carers, carrying out further research into alternative treatments, and audits.

The report estimated that antipsychotic use could be safely reduced to a third of its current usage over a period of three years.

However, it also said that some people with dementia do benefit from antipsychotics and there are likely to be specific subgroups of people with dementia who benefit, such as those with severe symptoms. It said this has not yet been tested in rigorous trials.

Based on the best evidence available, Professor Banerjee estimated that:

- Each year, 180,000 people with dementia receive antipsychotics in England.
- Up to 36,000 of these people benefit to some degree from the treatment.
- Around 1,620 additional cerebrovascular adverse events (such as stroke) will result from the treatment. About half of these will be severe.
- Each year, about 1,800 additional deaths will be caused by the treatment in this frail population.

4.9 Evidence base

Choice of first-line antipsychotic drug treatment

NICE (2009) recommends that,

“The choice of drug should be made by the service user and healthcare professional together, considering the relative potential of individual antipsychotic drugs to cause extrapyramidal side effects (including akathisia), metabolic side effects (including weight gain) and other side effects (including unpleasant subjective experiences).”

Prescribing of depot antipsychotic treatment

NICE (2009) suggests that the prescriber should “Consider offering depot/ long-acting injectable antipsychotic medication to people with schizophrenia (1) who would prefer such treatment after an acute episode (2) where avoiding covert non-adherence (either intentional or unintentional) to antipsychotic medication is a clinical priority within the treatment plan.”

Antipsychotic co-prescribing

NICE (2009) cautions,

“Do not initiate regular combined antipsychotic medication, except for short periods (for example, when changing medication)”.

The British National Formulary (BNF, 2009) states,

“The prescribing of more than one antipsychotic at the same time is not recommended as this may constitute a hazard.”

Clozapine prescribing

NICE (2009) recommends,

“clozapine to people with schizophrenia whose illness has not responded adequately to treatment despite the sequential use of adequate doses of at least two different antipsychotic drugs. At least one of the drugs should be a non-clozapine second-generation antipsychotic.”

High dose antipsychotic prescribing

NICE guidance (2009) recommends that the clinician

“Justify and record reasons for dosages outside the range given in the BNF [British National Formulary] or SPC [Summary of Product Characteristics]”.

The Royal College of Psychiatrists' revised consensus statement (RCPsych, 2006) concludes that,

“current evidence does not justify the routine use of high-dose antipsychotic medication in general adult mental health services, either with a single agent or combined antipsychotics”.

5. PHYSICAL HEALTH PROMOTION FOR PEOPLE WITH SEVERE MENTAL ILLNESS

The evidence base for health promotion initiatives in general populations is well documented. Below will focus on studies that look at delivering these interventions in groups with severe mental illness. Evidence was found via specialist databases CINAHL, BNI, Embase, Medline and PsychInfo and through Google Scholar, Cochrane, cascade searches and also by looking at grey literature. Searches were carried out using the terms severe mental illness, serious mental illness, schizophrenia and bipolar. Terms including health promotion, health education, exercise, health trainers, weight management, lifestyle, cancer screening, cervical, pap, breast, mammogram, smoking, sexual health, alcohol education, drugs education and contraception were also used. Only studies written in English were reviewed. Studies relating where the intervention took the form of a token economy were excluded.

Overall, there is a general lack of randomised controlled trials with strong methodological design. There are also concerns about numbers of participants in studies and intention to treat analysis is not regularly included. There are also few studies carried out in the United Kingdom. No studies were identified that looked at health promotion in those from Black and Minority Ethnic (BME) communities.

5.1 General physical health promotion programmes

There have been a number of studies looking at general physical health promotion programmes. These generally include a combination of regular health checks, weight management advice, exercise and health promotion advice, some are provided by mental health services, others in conjunction or solely by primary care. They vary greatly, and it is often difficult to identify the "active components" of them. One large initiative, funded by Eli Lilly, is the Wellbeing Support Programme (WSP), involving physical health checks, lifestyle advice and if appropriate, healthy living groups over a two year period (Smith et al, 2007a). Data at the end of the two year intervention indicated that the intervention did have statistically significant effects on diet, smoking status and weight, although it is unclear if these benefits were maintained post intervention (Smith et al, 2007b). Eli Lilly's similar USA based programmes, Solutions for Wellness and Team Solutions have recently published data from state hospitals that indicate that they can increase service users' knowledge of healthy lifestyles and have a moderate effect on weight and glucose and triglyceride levels (Lindenmayer, 2009). Many of the services offered in the UK are based on these approaches, however

at present there is no published data on cost-effectiveness.

As we have discussed, it is clear that for effective improvements in physical health in people with severe mental illness that there is a need to have good liaison and links with primary care (Samele et al, 2006). Hamilton et al (2009) presented initial data on "lifestyle clinics" run in general practice by a practice nurse and community psychiatric nurse suggesting that these clinics could engage service users well, especially if staffed by motivated mental health professionals, however they have not released follow up data as yet. In addition, White et al (2009) have developed a tool for mental health professionals to use to identify health problems to sign post them towards relevant services. As yet this tool has not been validated.

Bradshaw et al (2005) reviewed some of the approaches and concluded that they suffered from poor methodologies and further research was needed. A recent systematic review of behavioural interventions to improve the physical health of people with severe mental illness concluded that the gains of interventions are lost over time, meaning that wellbeing programmes should be offered over periods of years as opposed to months (Kemp, et al, 2009).

There is a general lack of research into health promotion carried out in primary care settings with people with severe mental illness. The majority of health promotion research is undertaken in groups that are already engaged with mental health services. Studies in the general population have indicated that those who engage with regular health care are more likely to engage in health screening and promotion services. It can therefore be argued that service users who are already engaged with mental health services are more likely to engage with other services.

Gaps in information

- We could not find information about wellbeing programmes for those not under the care of secondary services and or engaging with primary care services ("hard to reach groups").
- Service user opinions of such programmes are not well documented.
- Effectiveness of wellbeing programmes with those from BME groups.
- There was a lack of information about what part of the psycho-education programmes was most effective.

- Long term follow up of participants in wellbeing programmes to identify length of time benefits are maintained and the most effective treatment length.
- Cost effective analysis of providing wellbeing programmes, looking at cost per QALY.

5.2 Weight management

Weight management research for severe mental illness generally falls into two categories; promotion of weight loss or the prevention of weight gain. There is a wealth of studies looking at interventions to manage antipsychotic weight gain and these have been reviewed in four recent systematic reviews (Faulkner et al, 2007, Alvarez-Jimenez et al, 2008, Lowe and Lubos, 2008 and Galletly and Murray, 2009). Unfortunately, the design of many studies is poor, meaning they are frequently excluded from reviews. Alvarez-Jimenez et al (2008) evaluated the evidence for both pharmacological and non-pharmacological interventions, and the other reviews only looked at non-pharmacological interventions.

Faulkner et al (2007) concluded that patients, carers and families should be given education and advice on monitoring weight, and that medication to aid weight loss should only be prescribed if a service user has not responded to lifestyle interventions. They do not make recommendations about medication apart from noting that "no single agent emerges as consistently superior". Alvarez-Jimenez et al (2008) concluded that individual and group interventions were effective, as well as CBT and nutritional counselling. They highlighted the need for these to be delivered in the early stages of antipsychotic treatment, in order to prevent weight gain. These findings are not maintained by Lowe and Lubos (2008) who felt that there was a limited evidence base for psycho education programmes and education and exercise programmes and argue that as evidence suggests that weight gain can be reduced by switching antipsychotic, this should be the routine first line intervention for weight management.

Commercial diet clubs are available as "diet on prescription" in certain PCTs in the North West region. Bell et al (2001) investigated the effects of the Weight Watchers programme of people taking olanzapine in a small scale study. The Weight Watchers meetings occurred in an outpatient department over a 10 week period, and participants were also offered 3 exercise sessions a week. The study found that there was no statistically significant change in BMI, although those in the

intervention group did lose weight. It is difficult to conclude from this study if encouraging those with severe mental illness to attend diet clubs is effective, as it occurred in a different setting from community based clubs.

The interventions offered in weight management programmes varies hugely, from length of intervention to type and level of information given, however it is difficult to identify the key components of a successful weight management programme (Galletly and Murray, 2009).

Gaps in information

- We couldn't find information about the effectiveness of weight management strategies in groups that are not engaged with secondary services and or primary care, in addition to those from BME groups.
- How long are the benefits of these groups maintained for? Do the benefits disappear as soon as the intervention ends?
- What is the effective component of counselling/support service?
- The cost effectiveness of delivering weight management strategies, looking at cost per QALY.
- There was a lack of information about using direct payments or personalised health budgets as part of weight management.
- Are schemes where people are paid to attend gyms, or have gym fees paid for them beneficial?



5.3 Exercise

Current recommendations for the general population are to get half an hour of moderate exercise, five times a week (NHS Choices, 2007). The evidence bases on the benefits of exercise to mental health are documented well and will not be discussed here. This section will focus primarily on the benefits to physical health. Exercise interventions that are frequently utilised in the UK include social prescribing. The benefits of social prescribing schemes in the general population and with those with cardiovascular diseases are well known.

Richardson et al (2005) summarised that the most effective exercise interventions take into account a person's age, sex, culture, health and other background status. They found that programmes such as exercise on prescription were more effective than face to face counselling. Programmes that encourage moderate exercise such as walking were also thought to be more beneficial than those offering high intensity such as running and aerobics. Approaches that encourage lifestyle changes by integrating physical activity into leisure time are also beneficial.

It is known that over half of the general population drop out of exercise programmes within 6 months of starting them (Richardson et al, 2005) and therefore expect to see similar rates in those with severe mental illness. Exercise schemes should be made with a flexible design that allows people to join whenever they feel ready to do so. Exercise services for people with severe mental illness should offer support and reassurance, instil confidence and allow service users to reflect in their achievements. Providing people with severe mental illness with pedometers is an excellent and cheap idea. Unfortunately, many of the studies into exercise are of poor quality, with low sample groups and unclear recruitment (Bradshaw et al, 2005). American studies also include the use of token economy, which will also affect results.

Gaps in information

- We needed more research using larger samples sizes and higher quality research methods
- There was a lack of evidence showing how acceptable these services are to those from minority groups.
- The cost effectiveness of exercise programmes?
- There was a lack of outcome measures that assess the effectiveness of health trainer services (including PROMS).

- More research is needed into integrating exercise into inpatient settings, especially as physical environment often restricts this

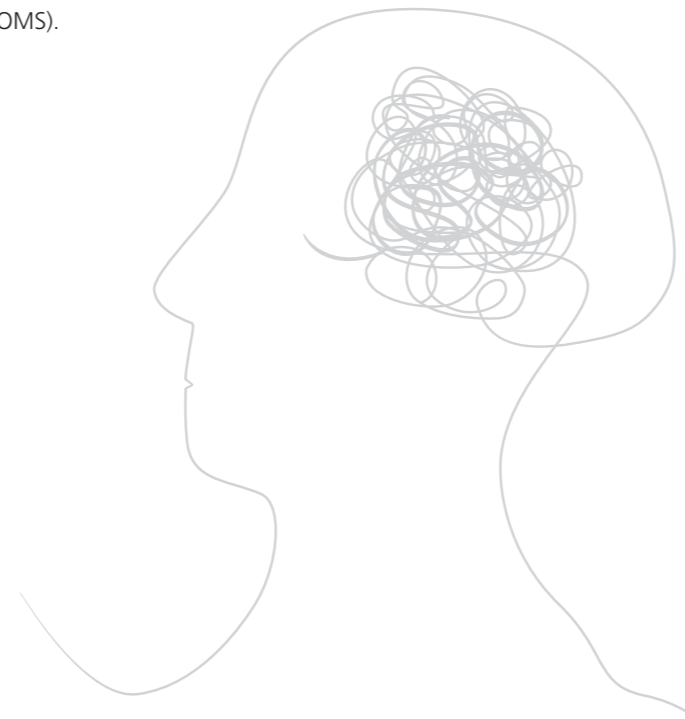
5.4 Health trainers

Choosing Health (Department of Health, 2004b) suggested the use of health trainers in order to tackle health inequalities. Health trainers "help people to develop healthier behaviour and lifestyles in their own local communities. They offer practical support to change their behaviour to achieve their own choices and goals" (NHS Careers).

Unfortunately, some services that have presented data on effectiveness have excluded people with severe mental illness from engaging with services (South et al, 2006) and there is no current research that looks at the effectiveness in populations with severe mental illness. Trayers and Lawlor (2007) argue that health trainers are ineffective on their own at tackling health inequalities and must be used in conjunction with policies that tackle the physical environment.

Gaps in information

- The effectiveness of health trainers working with people with SMI (including those from minority groups).
- The cost effective of health trainers. However, we were unsure if it was it fair to assess Health Trainers only in terms of cost effectiveness? Health trainers integrate people into services that can increase social networks, and enhance quality of life without necessarily affecting life expectancy.
- Again, commissioners would benefit from the identification of outcome measures that assess the effectiveness of health trainer services (including PROMS).



5.5 Cancer screening

Uptake rates of screening for breast, cervical, colon and prostate screening in people with severe mental illness vary greatly. There is contradicting evidence indicating whether or not there are higher or lower rates of screening in people with severe mental illness. Many studies publish data from populations that are engaged with mental health care providers and there is a lack of data taken from general practice populations. There is a general lack of studies on this subject, looking at both uptake rates and ways in which to develop services for people with severe mental illness, especially in the UK.

It is debatable if women with severe mental illness are less likely to self examine their breasts or to receive appropriate mammograms or not. Lindamer et al, (2003) Hippisley- Cox (2005) and Werneke (2006) found that they were less likely to do so, however a UK based audit of GP records indicated that there was no difference compared to the general population (de Lusignan, 2005). Kahn et al (2006) highlighted a need for increased education amongst women with mental illness so they were able to understand the benefits. There is a lack of quantitative research looking at services to increase breast awareness.

Again, there is contradiction in looking at rates of uptake in cervical screening. Both an American and UK study have found that there was no difference in uptake of cervical screening amongst women with schizophrenia than compared to the general population (Dickerson et al, 2002 and de Lusignan, 2005). Hippisley- Cox's (2005) analysis of UK data and both an Australian (Webster, 2007) and Canadian study (Martens et al, 2009) found that women are less likely to attend for screening.

Gaps in information

- We needed accurate data from the North West to identify if action to increase screening is needed.
- We need to identify the best way of engaging people from lesbian, gay, bisexual and transgender groups in screening.

5.6 Smoking cessation

As section 3.1 has explained, incidences of smoking are known to be higher amongst certain groups with severe mental illness. Since the introduction of the smoking ban in 2007, which has included psychiatric hospitals, there has been a better understanding of the need for mental health services to work with primary care in order to help those with severe mental illness stop smoking.

It is understood that those with severe mental illness have the same motivators for wanting to stop smoking as those in general populations (el-Gumball, 2002 and Siru 2009). There has been a wealth of research into the various forms of smoking cessation including pharmacological interventions and counselling/ support services. These interventions have been summarised in several systematic reviews (el-Guebaly et al, 2002, Ranney et al, 2006, Snyder, 2006 and Ferron et al, 2009) which both largely concluded that smoking cessation interventions that are used in the general population are effective in people with severe mental illness, however there may be need to be repetition in delivery of messages and or relapse prevention. Bradshaw et al, (2005) found that smoking cessation was the most effective type of healthy lifestyle intervention. Nicotine replacement therapy (NRT) and or bupropion as well as psychosocial interventions have been researched in people with schizophrenia; however there are no studies at present looking at the use of varenicline (Campion, 2008) in people with severe mental illness. Current evidence suggests that pharmacotherapy in conjunction with counselling is most effective and it is established that smoking cessation does not affect mental state.

It is important to pay attention to the effect that smoking cessation can have on psychiatric medication. Smoking causes many medications such as clozapine, diazepam, zotepine, propranolol and tricyclic antidepressants to be metabolised by an enzyme, CYP1A2. Smokers on these drugs often require higher dosages. The same is also true to some extent with haloperidol, olanzapine, mirtazapine and fluvoxamine. When stopping smoking a toxic build up of drugs can occur within the body within several days. Rostami-Hodjegan (2004) recommend that there should be a one third reduction in clozapine dosage soon after stopping smoking. McNeill (2004) recommends a pathway can be followed when helping smokers with illness to consider stopping smoking (Fig 2).

The cost effectiveness of smoking cessation in general populations is well documented however no calculations have been carried out in the UK with people with severe mental illness. There is one American study that evaluates the cost effectiveness of counselling and medication in people with moderate depression (Barnett et al, 2008). Participants took part in a stepped model of care, firstly being assessed for willingness to stop smoking then referred for counselling and NRT and the final step if they continued smoking was to be offered bupropion. The cost per QALY was \$5170.

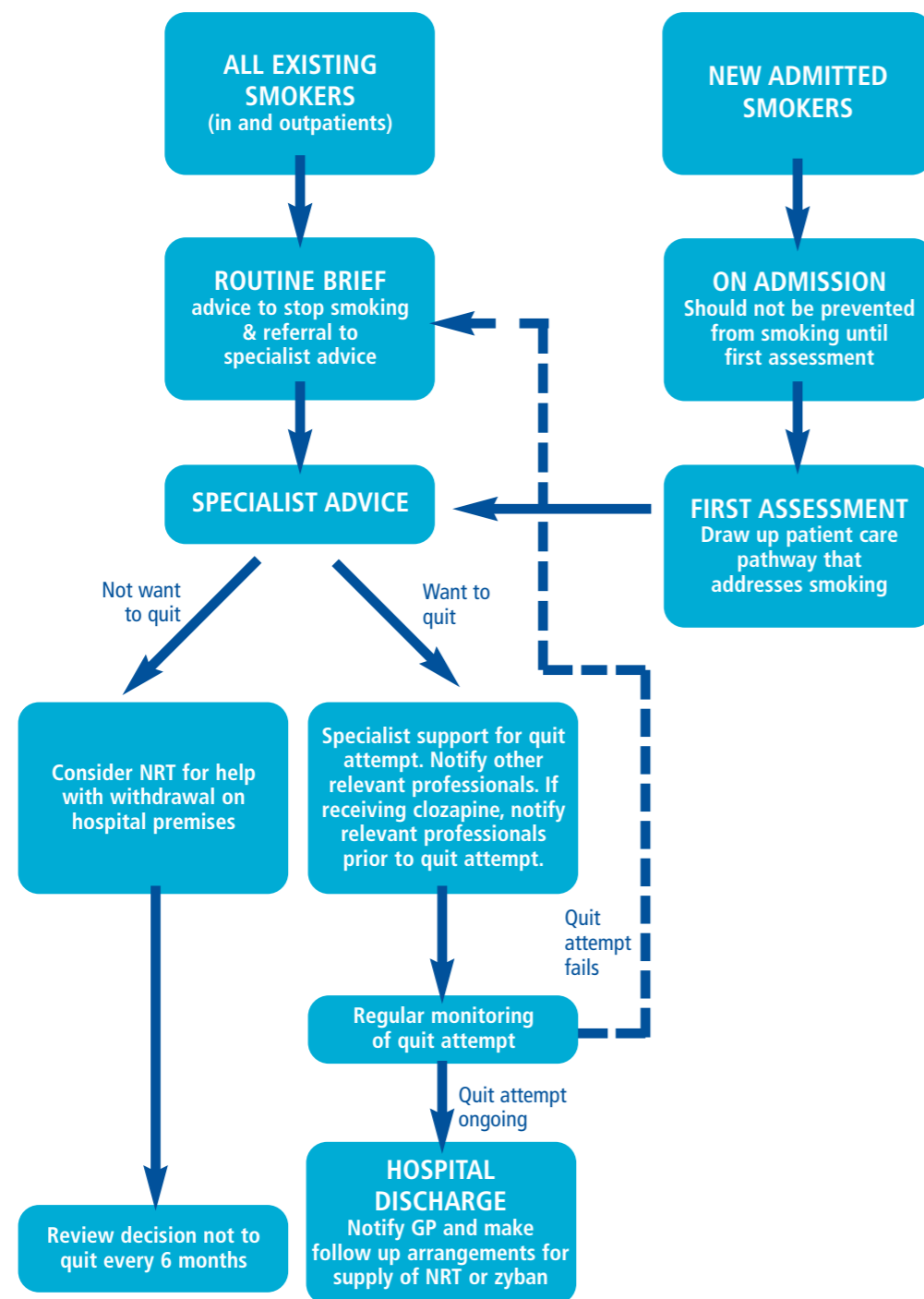


FIG. 2. Helping smokers with mental health problems to stop (McNeill, 2004)

Gaps in information

- Accurate figures on the number of people with a severe mental illness who are current smokers.

5.7 Alcohol and drugs education

The North West has high numbers of people who have mental health problems and drink alcohol and use illicit substances. The financial impact is rated as “very severe” by 43% of Trusts in the region, compared to a national average of 22% (NIMHE, 2009). The Dual Diagnosis Good Practice Guide (Department of Health, 2002) suggests that those with severe mental illness and substance misuse problems should have a mental health lead who coordinates their care and seeks help, advice and support from substance misuse and dual diagnosis teams. The provision of appropriate care in the region is variable, and all eight specialist mental health trusts in the region were rated as weak when looking at the training acute care staff received in dealing with service users who used alcohol or drugs (NIMHE, 2009).

There is a wealth of literature evaluating best treatments for people with severe mental health illness and co morbid alcohol or drug addiction. This report is focusing on the public health promotion aspects of alcohol and drug misuse and unfortunately, there is a lack of evidence around effective approaches with this group.

The guidance that service users receive when being commenced on medication is variable. Service users in the region have complained that they are getting little information about medication side effects (Healthcare Commission, 2008) and we can assume that there is little information about the interactions between drugs and alcohol. In figure 3, Holland and Linnell (2007) provide a useful summary of interactions between commonly used substances, including alcohol, and groups of medication in mental health. Service users often receive information leaflets, such as those published by the UK Psychiatric Pharmacy Group, which often advise abstinence from alcohol for a period of 1-2 months when commencing a new antipsychotic, before trying a small amount (UKPPG, 2001a, 2001b).

The North West has high numbers of people who have mental health problems and drink alcohol and use illicit substances.

STREET DRUGS AND YOUR MEDICATION

Reported adverse effects that can take place.

	ANTIPSYCHOTICS	ANTIDEPRESSANTS	ANXIOLYTIC & HYPNOTICS	MOOD STABILISERS	ANTICHOLINERGICS
CANNABIS	Added drowsiness Antipsychotic less effective (higher doses may be needed)	Increased heart rate (palpitations) with tricyclics Possible delirium Serotonin anti-depressant recommended	Added drowsiness Paradoxical agitation Nervous edginess	Added drowsiness Possible rise in blood lithium levels (toxic)	Possible anticholinergic psychosis
ALCOHOL	Added drowsiness & lethargy. Increased heart beat/hypotension (low blood pressure), Respiratory depression DANGEROUS	Added drowsiness seizures and hypotension with Tricyclics. Serotonin antidepressants recommended	Added drowsiness Hypotension (low blood pressure), fainting. Respiratory arrest. DANGEROUS	Rise in blood Lithium levels Dehydration/over hydration. Disrupt blood Lithium levels. DANGEROUS	None/little known/ reported
STIMULANTS. COCAINE/ AMPHETAMINE/ ECSTASY ETC.	Antipsychotic less effective (may lead to a higher dose of both). Flupentixol may reduce craving	Disturbed heart rhythm (Arrhythmias). Serotonin antidepressants may cause stimulation/ agitation	Anxiolytic/hypnotic less effective	Heart problems (Arrhythmias). Dehydration leading to toxicity. Diminished 'high'. Could lead to poor meds compliance.	Agitation Over stimulation
HEROIN/ METHADONE & OTHER OPIATES	Increased sedation. Hypotension (low blood pressure). Respiratory depression (lower, stopped breathing).	Added drowsiness Respiratory depression (laboured or stopped breathing). May increase blood opiate levels. Citalopram safest.	Added drowsiness. Risk of respiratory depression. Blood opiate may rise-danger of O/D .	Carbamazepine less effective and reduced blood opiate levels. O/D risk if sudden cessation of Carbamazepine Sodium valproate possible alternative.	None/little known reported
TOBACCO	Antipsychotic less effective so higher dose may be needed. Dose adjustment maybe necessary on smoking cessation to avoid side effects/over sedation.	Fluvoxamine-blood levels increased. Duloxetine - blood levels decreased. Antidepressant side-effects may worsen, some less effective. Higher doses may be needed. e.g. Fluvoxamine/ duloxetine. Side effects may worsen when stopping smoking	Blood propranolol reduction	None/little known reported	Agitation. Over stimulation possible.

FIG. 3. Street drugs and your medication (Holland and Linnell, 2007)

O/D = Overdose

5.8 Sexual health promotion

Sexual expression is an important and often overlooked aspect of holistic care for people with severe mental illness. 39% of service users reported side effects from medication that affected their levels of sexual functioning (National Schizophrenia Foundation, 2000). Pinkerton et al (2001) cite a number of studies showing an increased rate of HIV infection in people severe mental illness due to engaging in unprotected sex and having multiple partners. These two factors highlight the need for sexual health promotion to be offered to all service users, to increase their personal wellbeing and for the prevention of sexually transmitted diseases and unplanned pregnancies.

There are various models of sexual health promotion. Two literature reviews have looked at the effectiveness of various models of sexual health promotion. Higgins et al (2006) looked at United States and United Kingdom studies, whereas Senn and Carey (2008) only looked at interventions delivered in the United States. Both literature reviews concluded that the most effective interventions were in small groups with a combination of information giving, motivational exercises and skills components and that the most effective interventions had between 6 and 10 sessions, with some having booster sessions. Both group and individual sessions have been found to be effective.

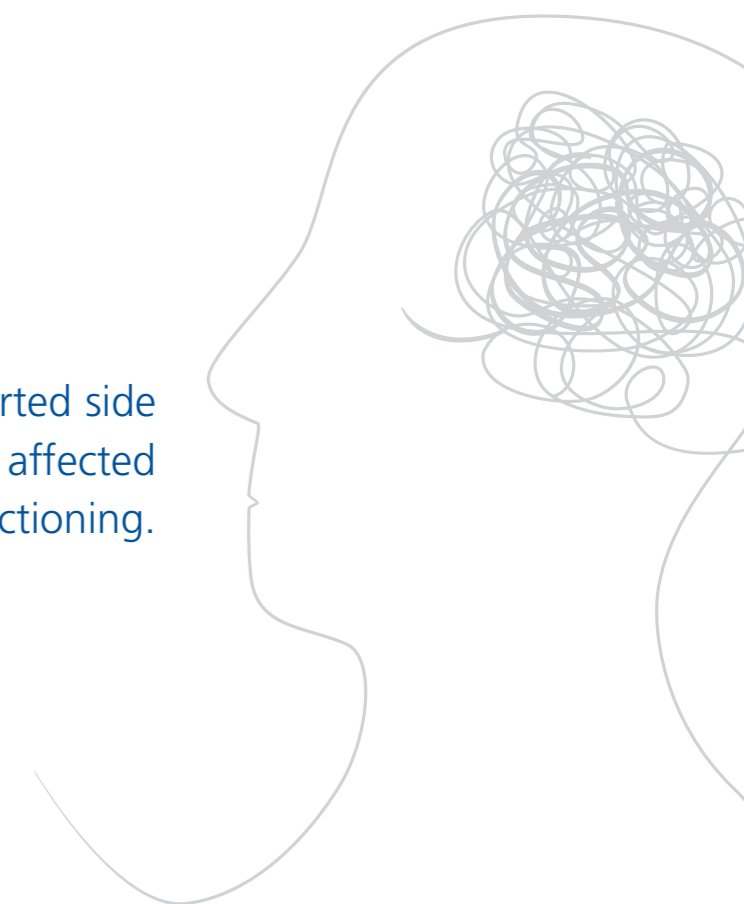
The cost effectiveness of sexual health promotion interventions is also important. Pinkerton et al (2001) investigated the cost effectiveness of a nine-session cognitive behavioural HIV risk reduction intervention and concluded that it was more cost effective to target this intervention at sexually active women with a severe mental illness, at a cost of \$71,367 per Quality Adjusted Life Year (QALY). It is worth noting that NICE deem anything costing below £20,000-30,000 per QALY to be cost effective (NICE, 2008b)

Several studies have indicated that mental health nurses do have the skills necessary to deliver sexual health training (Woolf and Jackson, 1996 and McCandles and Sladen, 2003), however Higgins et al (2006) note that they may need extra support in order to do so.

Gaps in information

- We couldn't find data about sexual health promotion from minority groups.

39% of service users reported side effects from medication that affected their levels of sexual functioning.



6. WHAT SERVICES DO PEOPLE IN THE NORTH WEST RECEIVE?

6.1 National initiatives

Primary medical responsibility for people with a severe mental illness should lie with the patients General Practitioner (Royal College Psychiatrists, 2009). Since the introduction of the Quality Outcomes Framework (QoF) in 2003, all General Practices are required to keep a register of people with "severe long term mental health problems", who have agreed to follow up (Department of Health, 2004a). The Department of Health do not define this by diagnosis, but suggest that it could include those diagnosed with a psychotic disorder and/or under the Care Programme Approach or multidisciplinary secondary care. It is expected that those on this register will be reviewed at least every 15 months in General Practice and that this review should include a physical health check. This should normally include:

- Regular preventative care, e.g. cervical cytology
- Issues relating to alcohol or drug use
- Smoking and heart disease
- Risk of diabetes from olanzapine and risperidone.

In addition to this, there are requirements for monitoring those who are prescribed lithium, by checking lithium levels are safe and within a therapeutic range and that serum creatinine and TSH are monitored. The Quality Outcomes Framework suggests that clinicians use Gask et al, (2001) as a guide for deciding who should be included on the register of people. They suggest that this may include people with psychotic illnesses and those under the Care Programme Approach. They recommend that screening for diabetes should be done for those on all on antipsychotics as well as discussing alcohol and drug use. It is unclear if the introduction of the QoF has made an improvement to the quality of care that people with severe mental illness receive. If a service user declines to attend 3 times within a 12 month period, then they are deemed to be an approved exception. It is known that those with severe mental illness often find it difficult to engage with primary care services and it could be argued that this exclusion clause removes the incentive for services to reach out to those most at risk. A recent confidential audit of three GP surgeries in the region indicated that of 245 people on their SMI registers, 40% attended the surgery for their health check. Of those that did not attend, only 20% had actively refused, the rest had failed to attend. Several Primary Care Trusts in the region employ nurses that help GPs review their QoF registers to ensure they are up to date. They also provide advice and guidance with how to write to service users to ensure that they maximise the uptake rate.

There is guidance from NICE (2006, 2009a, 2009b, 2009c) for the treatment and monitoring of people with bipolar disorder, schizophrenia and depression,

some of which covers physical health care. At present, there is a lack of data indicating if the various guidance are actually being implemented in the North West as a whole. Whilst there may be audits happening and other monitoring being done at a local level, it appears to be on an ad hoc basis and is not widely available.

The bipolar disorder guidance recommends that service users should have baseline assessments made, including, but not exclusive to

- Smoking status and alcohol use
- Blood tests- TFT, LFT, U&E, FBC, blood glucose, lipids
- Weight
- Height
- Blood pressure
- Consider EEG, CT and MRI scanning.

It is also recommended that service users receive an annual review of these, a copy of which should be given to the service user and also to secondary care services. They advise that everybody over the age of 40 should have lipid levels checked annually, even if there are no other indicators of risk.

If the annual mental health QoF check identifies areas of concern, such as raised lipid levels, diabetes or other conditions, the service user should be placed on the relevant QoF register by their GP for that condition and treatment should be given following relevant NICE guidance.

The revised Schizophrenia guidance is less prescriptive, advising that there should be regular physical health screening, and that if there is a risk of developing conditions such as diabetes, cardiovascular disease etc, then they should be identified at the earliest opportunity and managed according to the appropriate NICE guidance. They highlight the fact that there is yet to be a randomised controlled trial that studies the effects of monitoring and screening service users for physical health.

NICE highlight that there is a link between poor mental health and poor physical health (2009b, 2009c) in particular the fact that depressive symptoms can be masked by physical health symptoms, as well as physical health conditions being exacerbated by depression. The guidance does suggest that clinicians should offer advice on taking regular exercise, avoiding alcohol and smoking when discussing sleep hygiene.

RETHINK recommend the detailed Physical Health Check (PHC), which is divided into two sections, looking at general health and lifestyle, before reviewing a symptom checklist once problems have been identified. The tool is aimed at mental health professionals and its application is varied. The tool was developed for use within a community mental

health team (CMHT) (Phelan et al, 2004). The tool begins by taking basic family history, lists current medication, checking if the service user is aware of side effects or needs any further information about it. The tool then looks at lifestyle, including exercise, diet, smoking, alcohol, drugs and sexual health. The symptom checklist includes an outline drawing of a body, so that service users can highlight areas where they may be having problems. Service users are then asked to explain when they saw their GP/ dentist/ optician and had an ECG. There are gender specific sections, looking at breast and cervical screening and possible menstrual problems for women and testicular and prostate screening for men. Finally, height, weight, BMI, waist measurement and urinalysis are documented. Unfortunately, the tool does not have a section that would help identify previously undiagnosed physical health problems (Samele et al, 2006)

The Royal College of Psychiatrists (2009) have recently reviewed physical health care provision and have made recommendations about the type of care that should be offered in acute mental health settings, learning disabilities, forensic and child and adolescent services. The review suggests checks that clinicians might want to consider, however does not make recommendations for one comprehensive check. The suggestions are similar to those enclosed within the RETHINK PHC, as both reports have overlapping authors.

6.2 North West provision

In 2004, the White Paper, Choosing Health, was published (Department of Health, 2004b). The paper laid out plans for reducing health inequalities by ensuring that people are provided with support and opportunities for healthier lifestyles. In 2006, this paper was followed by a £7million budget that was allocated to 88 spearhead Primary Care Trusts and was accompanied by guidance to Commissioners to allow them to ensure that there was provision of services that promoted healthy lifestyles for people with severe mental illness. Of the 88 spearhead PCTs, 18 of them were based within the North West region. A review of this project (Woodcock-Ross et al, 2009) identified that there was a "reluctance to view physical health and mental health as co-existing phenomenon" (p.55) and that examples of good practice were largely due to committed individuals as opposed to strategic vision from Trusts. It was clear that the most effective services involved collaboration between General Practices, Public Health and Mental Health Trusts

In reviewing service provision in the North West, the Clinical Pathway Group members have met with a variety of people who are working in different fields, including Primary Care, Mental Health Trusts and Local Authorities. Unlike Woodcock-Ross (2009),

we have been able to visit those who are not in receipt of part of the Choosing Health budget.

As expected, we encountered a wide range of different services and approaches. Each area has different needs based on geography, demographic makeup and staff skills mix, and therefore there was a wide range of approaches for tackling the physical health of people with severe mental illness. Because of this, the Clinical Pathway Group will not be making any recommendations about service specifications. Instead we will be giving examples of what works well and what areas of weakness are in the region.

6.2.1 Mental health trusts

We were impressed with mental health trusts that had embedded physical health throughout their organisation. These Trusts often had a visible Nurse Consultant who had responsibility for physical health and a member of the board had ownership of physical health at a corporate level. This contrasted with other trusts who had less senior members of staff championing physical health care, who struggled, feeling unsupported and unable to influence change within their organisations.

The quality of the Trusts' physical health policies varied throughout the region. Some policies covered issues such as clerking in on admission to inpatient units and resuscitation. Other policies had more detail and did cover health promotion. Several trusts did not have policies that were up to date.

Roles, responsibilities and accountability varied between trusts. Several areas were investing in developing advanced practitioners as they were unable to recruit junior doctors to the region. These clinicians had advanced clinical skills and were able to make differential diagnoses and treat physical and mental health conditions, dependent on training. Trusts were identifying that these assistant practitioners were helping service users access treatment more rapidly and allowing for early intervention. The region is also developing the role of assistant practitioner, and many of these people will have a remit for working with service users and carers to promote physical health and wellbeing.

We heard anecdotes across the region about staff undertaking clinical tests, without understanding the rationale for doing so, or being unable to interpret and act on results appropriately. For instance, we heard of ECGs routinely being done, as it was considered best practice to do them, however they were done on all service users attending a clinic, regardless of clinical need and were not being read by a qualified person. This is an inefficient use of resources, and as the results were not being read or acted on, could lead to important clinical information being missed.

6.2.2 Inpatient units

Several areas had exemplary inpatient facilities that allowed for the physical health needs of service users to be met. We found units that were using inpatient admission as an opportunity to look at a person's physical health care, as they often found that service users had not been attending their general practice for routine care and were unaware of healthy lifestyles information. One unit was educating service users on breast and testicle self examination, had dieticians attending regularly and would help people register at dentists local to their home address.

The same unit had excellent clinical examination equipment that was regularly calibrated and was the same as that used by the local acute hospital. Staff were assessed on a regular basis to ensure that they were using the equipment accurately. Other inpatient areas were not so well equipped. Most inpatient wards did not have large sized blood pressure cuffs. This often caused embarrassment for overweight service users and specialist equipment had to be found, but also may have led to inaccurate readings.

Most inpatient areas had access to exercise facilities, however their use was variable. We heard of patient units where gyms were used for storage and that staff were often unavailable to supervise service users using the equipment. Several units took advantage of local exercise facilities and used leave as an opportunity to introduce service users to these. We also found groups running on wards and in the community that went cycling, rambling, gardening and other activities.

We identified issues with some service users not having access to the same high quality services that the general population had. One concern was access to routine primary care services for people in long stay units. Many service users found that their routine care was provided by senior house officers in psychiatry, as opposed to experienced qualified primary care clinicians. Several Trusts do ensure that they have General Practice providing services inside long stay units and we were impressed with the approach used by the prison service, where GPs provide in-reach whilst maintaining a minimum number of hours of clinical practice in the community. In addition, we found trainee psychiatrists were reading ECGs. When these are undertaken in primary care and acute settings, they are read by a person who is an expert in interpreting the results and does so on a regular basis. We feel that this is an inequality as whilst trainees have had some training in interpreting results, they are not experts and do not interpret results on a routine basis.

6.2.3 Community mental health teams

Many care coordinators we spoke to were unaware that GPs had a severe mental illness register and that service users should be reviewed on an annual basis. As they were uninformed of the checks, they were unable to support and facilitate service users to attend these appointments. One CMHT manager we had the privilege of speaking to, ensured that all staff within the team were aware of these checks and audited CPAs within the team to ensure that the date of last check was recorded. These audits were then used to improve care. We identified staff who were dedicated to promoting the physical health and wellbeing of the service users that they worked with. Unfortunately, staff were struggling to balance clinical case loads with their dedication to help service users, and we heard of people running group sports outside of their working hours.

We heard of excellent community mental health teams who were engaging service users to help manage weight gain. Several teams in the region are using the Eli Lilly approach described in section 5.1.

6.2.4 Primary care provision

The region has had a number of individuals who have worked with General Practices in their Primary Care Trusts (often initially funded using the Choosing Health budgets). They have offered training and support, to review General Practices' registers of people with severe mental illness. They have identified problems with people being inappropriately placed on these registers, such as those with alcohol problems and learning disabilities. Once registers have been updated, there have been a variety of approaches to engage service users in their annual health checks, that are included in the QOF, including mental health nurses doing home visits to undertake screening at home (utilising RETHINK's PHC) and having mental health professionals offer training to those in general practice so they can make their services more inclusive and approachable to those with mental illness. Both approaches have benefits and downfalls. The first approach engages those service users who find it difficult to attend their local surgery, however, it largely relies on motivated individuals and it may be vulnerable as it relies on the Choosing Health budget. The alternative approach, enhancing the skills of primary care practitioners, however, is at risk of missing out those service users who repeatedly turn down their invitations for annual health screening, and are often the most at risk group. We were impressed by services that used a mixture of the above two approaches. We also found innovative

practice, such as reaching out into Asian women's groups, in order to target minority groups that do not access routine healthcare. We were concerned, however, that sometimes the nurses running identified symptoms that required treating (e.g. raised lipids following NICE's Lipid Modification Guidance) however when they informed the GP, the GP was not acting on the information. This was sometimes due to discrimination as the GPs felt that the service users would not follow the recommended treatment due to their mental illness and would not offer it.

The region has several PCTs that run programmes for people with mental health service users, focusing on healthy lifestyles. These are run in conjunction with third sector organisations and look at diet, exercise, smoking, and sexual health amongst many other topics. Service user lifestyles are assessed at the start and end of the programme to identify any lifestyle changes that are made.

6.2.5 Joint working and commissioning

Several of the services that were set up with the Choosing Health budget are run between mental health and primary care trusts. Staff often had access to training from both organisations, and were able to work across organisations in order to increase the number of people accessing a quality service. In one service, staff were able to work with local acute trusts in order to ensure that they were accessible to people with severe mental illness.

We identified PCTs where commissioners and clinicians were working together to meet the needs of their population, and would frequently meet to discuss ongoing concerns and problems. These areas often have good stakeholder engagement. We were concerned however, that some areas did not have such a good, clear and open dialogue. We encountered one area where a PCT Commissioner informed us that the local mental health trust had all responsibility for monitoring the physical health care of people with severe mental illness. When we met with a clinician from the mental health trust they informed us that the responsibility lay with the GP.

6.2.6 Health promotion

We found many PCTs are commissioning exercise on prescription services for people in the region that are available to people with severe mental illness. These schemes are meant to be time limited and at the end of the scheme, participants are expected to transition into mainstream exercise services such as local gyms. We heard anecdotal evidence that people with severe mental illness

were needing to spend longer in these programmes and were less likely to transition into unsupported exercise. Commissioners described people with severe mental illness as being "stuck" in the supported schemes, unable to move on.

We found numerous groups that promoted active lifestyles rather than taking up sport. We thought these were effective as they promoted change in lifestyle, recovery and also provided service users with social networks, which are known to increase mental wellbeing too. We heard of gardening groups that had set themselves up as social enterprises, supplying plants to local councils. These groups were highly effective as they enabled service users to have an active lifestyle, as well as providing them with meaningful roles and social networks.

6.2.7 Data collection and communication

The IT systems throughout the region varied in quality. Not all mental health trusts in the region have electronic service user records. Those trusts that did have them did not find that they were used by all disciplines and clinical areas. This led to poor communication between staff working in the same organisation and may have affected patient safety.

We were concerned about the flow of information and the amount of communication between mental health trusts and general practice. Often psychiatrists write to a General Practice and vice versa, suggesting monitoring that could be done, but there are no reliable mechanisms in place for ensuring that the actions are completed. Several areas are piloting shared notes, allowing mental health trusts to have access to some primary care records, however we do not have data on how effective this will be.

We struggled to collect accurate data about the level of co morbidities experienced by service users in the region. For example, we were unable to identify how many people on severe mental illness QOF registers were included in other registers such as for diabetes and epilepsy. We were also unable to find figures from acute care. The lack of accurate data indicates that questions about mental health and physical health are not being asked on a frequent basis.

7. 7. RECOMMENDATIONS

RECOMMENDATION 1

Mental Health Trusts should ensure that the promotion of high quality physical health care is embedded within their services at all levels. They should create a culture where physical health is as important as mental health and this should be reflected in the organisational structure, clinical care and environment.

Rationale

- Mental health and physical health are integral to a person's wellbeing and should not be seen as separate entities. We know that poor physical health can have a negative impact on mental health. Staff often complain of a lack of support within organisations.

How should this work in practice?

- All Mental Health Trusts should have a senior member of staff with responsibility for physical health within the organisation. This person should have the ability to influence at a board and clinical level and could be a Medical Director, Director of Nursing or one of their deputies.
- They should have organisational responsibility for ensuring that the Trust has an adequate policy that covers physical health (see recommendation 2).

Examples of good practice

- The Director of Nursing at Mersey Care NHS Trust (part of the North Mersey Footprint) has board level responsibility for physical health. A Modern Matron supports this post.
- 5 Boroughs Partnership NHS Foundation Trust (part of the North Cheshire Footprint) also have a Director of Nursing representing physical health at board level, with support from a Nurse Consultant.

How would this improve patient care?

- A top down culture will be created where physical health is seen as everybody's responsibility.

How could this be measured?

- Number of Trusts with an identified physical health lead.

RECOMMENDATION 2

All Mental Health Trusts should have an up to date Physical Health and Wellbeing Policy.

Rationale

- All service users should have access to high quality physical health care. A clear policy explains what services should be offered and should include clear responsibilities for any actions. The policy will also have gone through formal governance procedures. Staff currently working to address the physical health needs of people with severe mental illness have reported inconsistencies in care being given within their organisations. Having a formal policy should help address this.

How should this work in practice?

- The policy should include the following areas:
 - o Requirements and responsibilities for monitoring physical health during an acute inpatient admission, particularly when new medications are commenced.
 - o Minimum standards for inpatient areas, including exercise and therapeutic facilities, and adequate clinical examination areas and equipment. Staff should have adequate time to facilitate exercise activities.
 - o Minimum standards for clerking in procedure when admitting service users to inpatient areas (following the guidance given by NICE and the National Patient Safety Agency).
 - o Ensuring that there are adequate arrangements for follow up of any outstanding physical health issues upon discharge.
 - o Minimum standards for community based teams and outpatient departments, including adequate clinical examination areas and equipment.
 - o Clear information on who takes responsibility for monitoring physical health following the commencement of long term medication in community settings. This should be agreed at a local level.
 - o Standards for the recording of data (see recommendation 7).
 - o Clear guidance on medicines reconciliation when service users are admitted to inpatient areas (following the guidance given by NICE and the National Patient Safety Agency).
 - o Clarification on what information can be shared with other agencies within the NHS.
 - o Minimum standards of training required for staff (see recommendation 5).

- o Links to pathways and NICE guidance for the treatment of common physical health conditions.
- o Promotion of self care and encouragement of staff to view themselves as role models.
- o Clarification of the care coordinators' roles and responsibilities.
- o Resuscitation.
- o Procedures for transfer to and from Acute Hospital Trusts.

- The policy should be communicated throughout the Trust and its effectiveness should be monitored.
- We recommend that in developing these policies, Trusts should negotiate with their local Acute and Primary Care Trusts. This should cover arrangements for areas where specialist input and shared care may be needed, e.g. in long stay units where Primary Care services may be needed for routine health care or cardiology services to interpret ECGs. The CQC Investigation into West London Mental Health NHS Trust concluded that all people in services should have the same range of primary and secondary services as other people.
- All service specifications should include physical health care.

Examples of good practice

- 5 Boroughs NHS Foundation Trust (part of the North Cheshire Footprint) have a clear policy on physical health that is regularly audited.

How would this improve patient care?

- All service users should receive a minimum standard of care through a formalised policy.
- There should be reduced variability of service throughout different localities.

How could this be measured?

- Number of Trusts that have an up to date policy which has gone through formal governance procedures.
- The quality of the policy can be measured by checking compliance with the above recommendations.

RECOMMENDATION 3

Mental Health Trusts must work in collaboration with Acute and Primary Care Trusts to provide high quality physical health services for people with severe mental illness.

Rationale

- Primary care clinicians are the experts in providing routine physical health care and often provide care for stable service users who are not under the care of secondary services. Mental health staff should offer support to colleagues and service users where required. It is important that information is shared appropriately, in order to reduce duplication or omission and ultimately improve patient care and experience.

How should this work in practice?

- All service users under the Care Programme Approach should have the date of their last QOF review and due date of their next one with their Primary Care Team in the "Physical Health" section of their CPA care plan. Care coordinators should liaise with primary care and service users to actively encourage them to attend these appointments.
- Mental health services should take particular care when a patient is admitted to or discharged from any mental health service to ensure that there is adequate communication of physical and mental health needs with the GP. This will prevent duplication or omission and improve safety. This should happen within the next working day. For more information on suggestions for IT to support this, please see recommendation 7.
- Service users in long stay units, such as forensic settings, should have access to a GP, to ensure adequate physical health care. The model used in prison settings is recommended.

Examples of good practice

- Warrington CMHT, part of 5 Boroughs Partnership NHS Trust (and the North Cheshire Footprint), have excellent communication with their local GPs. They regularly audit CPAs to ensure that QOF checks have been recorded. GPs are able to contact them if service users have not attended.

How would this improve patient care?

- Service users would be ensured high quality care throughout the NHS system.
- Safety will increase, as important checks should not be missed.
- There should also be a reduction in duplication of tests, with increased productivity.

How could this be measured?

- Trusts should regularly audit CPA forms to ensure dates of last QOF checks are recorded.
- General Practitioners can continue to monitor uptake of QOF checks.

RECOMMENDATION 4

All staff working in mental health should have adequate training in physical health, relevant to their level of training and responsibilities.

Rationale

- There is a need for all mental health staff to recognise that physical health is within their remit. In addition, there is a need to ensure that staff are working safely within their competency level and are aware of appropriate actions to take if problems are identified. We have identified areas where staff are undertaking investigations, such as ECGs and blood tests, however do not have the skills to interpret them or to signpost to appropriate services.

How should this work in practice?

- Mental health trusts need to identify what level each member of clinical staff should be working at with regards to physical health. At a basic level all staff should be aware of health promotion. It is essential that all staff that have a responsibility for monitoring physical health can understand the rationale for doing so, can do this safely and are able to understand what to do with the information they collect, including referral if needed.
- There should be regular core skills training in basic procedures, such as monitoring blood pressure, pulse, temperature and blood glucose etc. In addition staff should be aware of normal parameters for results, when there should be concern about results and what action should be taken.
- Training needs of staff should be assessed and adequate training could be targeted at areas of need. It is essential that core standards are regularly audited.
- In addition, mental health staff should not be undertaking duties that are outside of their field of expertise, for example service user ECGs should be checked by clinicians with adequate skills in interpreting ECGs. Telemedicine could improve the time it takes to get results back. This should lead to early detection of problems and ensure that mental health patients have the same access to high quality care as the rest of the population.

Examples of good practice

- Cumbria Partnership NHS Foundation Trust (part of the Cumbria Footprint) has redeveloped their physical health policy. In it they have mapped out the competencies that they expect staff to be working at safely, including new roles such as Assistant Practitioners and Advanced Practitioners.
- Pennine Care NHS Foundation Trust (part of the Greater Manchester Footprint) is currently undertaking a review of staff competency and attitudes regarding physical health care. This will be used to ensure that training is targeted appropriately and at the correct level.

How would this improve patient care?

- Patient safety will increase as staff will be working within their competencies.
- It will also help reduce the inequalities that mental health service users face.

How could this be measured?

- Staff should be regularly assessed to ensure they are acting safely.
- This training should be audited and the findings used to directly improve patient care.

RECOMMENDATION 5

Inpatient environments should have facilities for service users to have sufficient physical activity and adequate areas and equipment for physical examinations and tests.

Rationale

- We have heard examples of areas for exercise being used inappropriately (e.g. for storage) or not being used due to staff being unavailable. In addition, some wards do not have adequate clinical examination areas, leading to patient safety, privacy and dignity being compromised. Equipment is often not up to date or of a high enough quality.

How should this work in practice?

- All service users should be supported and encouraged to be active for a minimum of 30 minutes, five times a week, in line with Change4Life recommendations. There should be an environment for this and adequate time should be made available so that staff can support and appropriately encourage service users to do this. Examples of potential activities are publicised by the Star Wards project (www.starwards.org.uk).
- Staff should be encouraged to be positive role models and to make healthy choices alongside service users, such as using leave from the ward to take walks together. Promoting physical wellbeing in staff links in with the Staying Healthy agenda.
- All inpatient units should have access to high quality Occupational Therapy to enable them to look at their daily structure and increase the amount of activity they have.
- All patient areas should have notice boards showcasing local health services, such as family planning, smoking cessation and other health promotion initiatives.
- All inpatient units should have a dedicated clinical room that allows for full physical examination and appropriate tests. All equipment should be maintained and calibrated regularly. All wards should have a large cuff available for taking blood pressures.

Examples of good practice

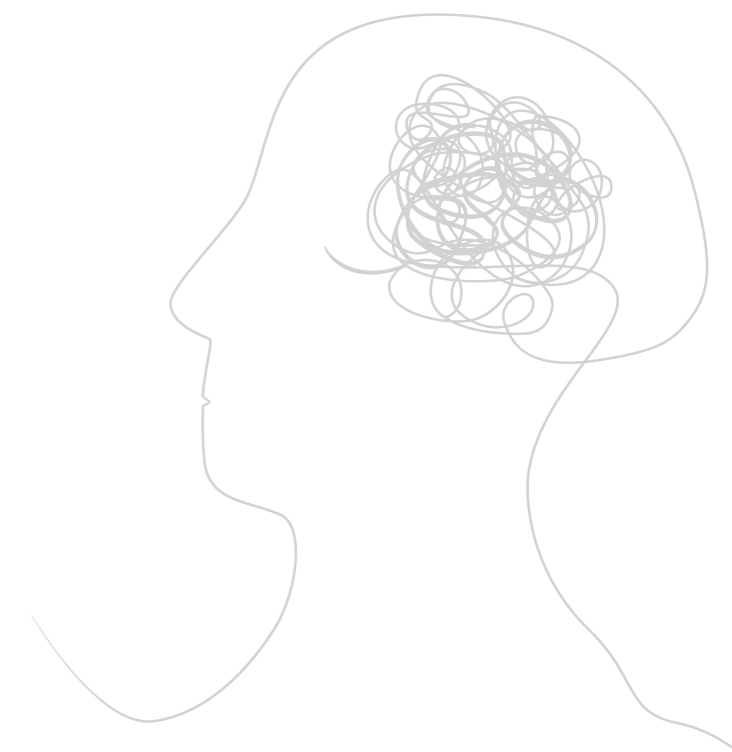
- Service users at Ashworth Hospital, part of Mersey Care NHS Trust (within the North Mersey footprint) have access to a range of facilities including exercise machines on wards and gyms. Each ward has a dedicated clinic room that is designed so that equipment is stored safely and cannot be removed.

How would this improve patient care?

- Service users will have access to facilities that will support them to get the recommended levels of activity to improve physical health and wellbeing.
- It will also help improve the patient experience by reducing boredom, which is also one of the leading causes of violence on inpatient wards.
- Service users will be assured that physical health examinations will be thorough and competent and that they are carried out in a dignified manner.

How could this be measured?

- The following areas should be looked at and used to inform and improve practice:
 - o Audit of exercise facilities available and the levels of use.
 - o Audit of clinical environment and facilities.
 - o Audit of nursing notes that indicate the amount of exercise taken each day.
 - o Patient satisfaction survey.



RECOMMENDATION 6

Staff working in general health settings should have an adequate awareness of severe mental illness, in order to reduce discrimination.

Rationale

- Service users and carers report discrimination when they try to access physical health care. This may discourage them from seeking help or engaging with appropriate services.

How should this work in practice?

- All pre-registration training for health care staff should include adequate training in mental health awareness. This training could include real life experiences from service users and carers in order to help tackle discrimination.
- Support can be given to clinicians in Acute and Primary Care services, so that they better understand the needs of service users and carers, and can ensure that their clinical areas are accessible for them. Ongoing training should be available.
- All providers of health care in the region should join up with the Time to Change campaign, led by Mind and Rethink. Acute and Primary Care Trusts should ensure that all staff have access to basic training in mental health. Providers of this can be agreed at a local level. All NHS Trusts should sign the Charter for Employers who are Positive About Mental Health, in order to help foster positive attitudes about mental health and tackle discrimination.

Examples of good practice

- A Manchester GP with a specialist interest in mental health provides training to practice staff in the area, improving confidence when seeing people with severe mental illness.
- Cheshire and Wirral Partnership NHS Foundation Trust (which overlaps both Cheshire based Footprints) employ three Health Facilitators to work in each of their commissioning PCT regions. They link in with providers of local services to ensure that they are accessible to people with severe mental illness. They are aware of up to date health promotion services and are able to share this information with commissioners.

How would this improve patient care?

- Service users and carers should experience less discrimination and therefore find services more approachable. This should lead to improved engagement and potential earlier intervention and better outcomes for any physical health conditions that may arise.

How could this be measured?

- Reports of patient experience can be audited.
- Staff training can be audited.

RECOMMENDATION 7

Information technology needs to develop so that it is possible to maintain accurate, up-to-date records and information on a patient's care. There needs to be a reduction in duplication and omission. Data that is collected needs to be used effectively to improve patient outcomes.

Rationale

- At present record keeping can be disjointed and clinicians can have difficulty accessing accurate patient data. An example of this is GPs not receiving timely discharge summaries following an inpatient admission. This can lead to risk to patient safety and duplication or omission of testing. In addition, data is being collected by various bodies, however it is unclear as to the rationale for this and how it is being used to improve service user care and experience.

How should this work in practice?

- All Trusts should have plans to implement multidisciplinary computer-based records for service user notes, if not already used. This should be done with a matter of urgency.
- Trusts should use digital dictation to ensure timely and effective communication of information, as it can reduce the time taken for letters to be sent to GPs by up to 25%.
- The National Minimum Data Set for mental health should be reviewed so that it captures data on when the last physical health check was done.
- The gold standard is to have integrated records across primary and secondary care, whilst still maintaining confidentiality.
- Systems for data collection should be developed so that accurate information about co morbidities is easily available. As a CPG we have been unable to identify how many service users that are on the Severe Mental Illness register are included on other parts of other registers within the QOF.

Examples of good practice

- The Salford Diabetes Care Record provides patients and professionals access to integrated health information. The information is accessible to staff in the acute trust, PCT and local eye hospital. Service users must first opt in to the service.
- Liverpool PCT and Mersey Care (part of the North Mersey footprint) are currently piloting a similar scheme with integrated access to primary care notes.

How would this improve patient care?

- Clinicians would have access to up to date information which would increase patient safety and reduce the risk of adverse events.
- Service users would find that delays in the flow of information are reduced and duplicated or omitted tests can be avoided.

How could this be measured?

- All Trusts should be audited to ensure they have plans in place to phase out paper notes.
- The length of time for discharge summaries and outpatient letters to reach the GP should be audited.
- Audit of digital dictation availability and use in clinical areas.

RECOMMENDATION 8

Primary Care commissioning should continue to include services that support full engagement of service users with health promotion initiatives.

Rationale

- Mental health service users are a diverse group and need access to a range of initiatives that support their wellbeing, which may in turn have a positive impact on their mental health. Commissioners should not use a "one size fits all" approach. Service specifications should encompass social inclusion and recovery.

How should this work in practice?

- All services should promote healthy lifestyles, with a focus on becoming more active. Gardening groups and walking groups are just some of the services recommended and can often be provided by third sector organisations.

- Commissioners should ensure that services can demonstrate practices that help reach groups that are often excluded from mainstream services, such as those from Black and Minority Ethnic Groups and Lesbian, Gay, Bisexual and Transgender Communities.
- Service users could be trained to become health trainers, providing them with meaningful roles. This links in with the work of the Mental Health Improvement Programmes. Peer lead health trainers have proved effective in other areas.
- Services need to be aware of the potential effects of illness on service users' families, particularly any children involved, and need to be able to provide support or signpost to other services if required. The Social Care Institute of Excellence have produced a guide looking at issues in this area: 'Think child, think parent, think family: A guide to parental mental health and child welfare'.

Examples of good practice

- MIND has numerous cafes across the region, in areas such as Rochdale and Stockport. Service users run these cafes and learn about healthy eating and skills in cooking. Many service users have gone on to find full time employment after working in these cafes.
- Knowsley PCT has set up an innovative 12 week programme entitled "Look after Myself Programme" (LAMP). The course is open to anybody with severe mental illness and provides information on a range of subjects such as healthy eating, smoking and oral health. Service users are then signposted to appropriate services.
- The Early Intervention Team at Lancashire Care NHS Foundation Trust (part of the Lancashire Footprint) work with service users to engage them in a wide range of activities, with hope, recovery and health being their motto. In addition they engage with the local research community, conducting innovative research in health promotion.

How would this improve patient care?

- Physical and mental wellbeing will be increased.
- Social inclusion and recovery will be promoted.

How could this be measured?

- The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) can be used to evaluate the impact of physical health promotion services.
- User satisfaction of services should be monitored.

RECOMMENDATION 9

People with severe mental illness should be offered an annual physical health review.

Rationale

- It is known that this population die an average of 10 years earlier than the general population and are at increased risk of physical health conditions such as cardiovascular disease and diabetes. The evidence base for this area is outlined in detail in the appendix report 'The Case for Change'. In the report we also review the guidance on physical health screening from bodies such as NICE and the Royal College of Psychiatrists which has informed our recommendations. Earlier detection of physical health problems will lead to opportunities for earlier intervention and prevention of more serious sequelae. This will ultimately improve patient outcomes and should be more cost effective.

How should this work in practice?

- The Clinical Pathway Group recommends that people with severe mental illness should have an annual review of their physical health. In line with guidance from NICE and the Royal College of Psychiatrists, this check should be carried out in primary care. Secondary care should ensure that this is taking place and should liaise with and support service users and primary care if there are any issues with engagement. Prescribers in secondary care services also have a duty to be aware of any potential side effects or issues related to medication and to be able to manage these or refer appropriately.
- One of the main reasons for a physical health check in this population is to review risk factors for cardiovascular disease. The evidence base for this and other physical health conditions such as diabetes is looked at in detail in Section 3 of 'The Case for Change' report. The content of the physical health review will vary depending on the clinician's assessment of the service user's previous history, individual risk factors and medications.
- Based on current guidance, the following should be considered although not all may be necessary depending on the individual assessment:
 - o Review of past medical history and family history, with particular reference to cardiovascular disease and diabetes.
 - o Smoking status.
 - o Weight, height, body mass index and waist circumference.

- o Blood pressure and heart rate.
- o Blood glucose.
- o Lipids including cholesterol, HDL cholesterol, LDL cholesterol and triglycerides.
- o A baseline ECG would be useful.
- o Information on alcohol use, any substance abuse, diet and activity.
- Clinicians should also ensure that any guidelines specific to the monitoring of particular medications should be followed.
- Clinicians should consider whether any other examination or tests or more frequent reviews are required, taking into account the patient's individual history and risk factors as well as any medications they are taking.
- Screening tests such as cervical screening should also be reviewed as there may be issues with poor engagement.
- Mental Health Trusts should have effective ways of following up service users who have not engaged with primary care checks.

Examples of good practice

- The Manchester Choosing Health service, which is commissioned jointly by the local Mental Health Trust and Primary Care Trust assists GPs in ensuring that their QOF registers are up to date, so that all service users who are entitled to an annual check receive one. If GPs are unable to access service users, they may refer them to the service, which will provide outreach and visit them at home.
- Lancashire Care NHS Foundation Trust (part of the Lancashire Footprint) employ staff to work with GPs in East Lancashire PCT. They help ensure QOF registers are accurate and offer training to staff to help engage service users in health checks.

How would this improve patient care?

- Regular screening leads to early identification of physical health problems.

How could this be measured?

- Trusts should regularly audit CPA forms to ensure dates of last QOF checks are recorded.
- Uptake of QOF checks can be monitored.
- The content of physical health reviews can be audited.

RECOMMENDATION 10

Careful consideration of physical health issues should be given to any antipsychotic prescribed, with the service user's medical history, choice and lifestyle all taken into account. Side effects should be monitored carefully throughout treatment.

Rationale

- All antipsychotics have a range of side effects that can affect the service user's long term physical health. These are discussed throughout the appendix document 'The Case for Change'. Some side effects are directly influenced by the individual antipsychotic used, for example the link between diabetes and olanzapine and clozapine. Prescribing of antipsychotics has greatly increased in the last two decades. The national expenditure on antipsychotic medication has increased 16 fold since 1993, with a national expenditure in 2008 of £276,878,600. When it comes to choosing a first line antipsychotic, NICE advocates a supportive approach to help service users make an informed choice, taking into account the person's medical history. Adherence with medication has been shown to be improved when service users and carers are involved in the decision making process.

How should this work in practice?

- If antipsychotic use is required then the choice of medication used should be centred around the service user with careful consideration given to their medical history, lifestyle and preferences. Sufficient understandable information should be provided to the service user to enable an informed choice.
- Side effects should be monitored and recorded regularly to identify any problems. Specific attention should also be given if there is a change in medication.
- Polypharmacy (the co-prescribing of two or more antipsychotics) should be avoided wherever possible. If medication is withdrawn it should be done very gradually with regular monitoring for signs of relapse for at least two years.

- Clinicians should be aware of the availability of generic antipsychotics; however this should not replace the spirit of choice laid out in NICE. Currently the only atypical antipsychotic available is risperidone. However, any productivity benefits of using this may be outweighed by the potential increase in movement to using risperidone long acting injection. Olanzapine is the next generic expected around September 2010 which should lead to increased productivity.
- Mental health services should consider joining the quality improvement programme run by The Prescribing Observatory for Mental Health (POMH-UK), if not already a member. This is a national audit based programme aiming to help services improve prescribing practice, including aspects of physical health monitoring.

Examples of good practice

- Lancashire Care NHS Foundation Trust (part of the Lancashire footprint) has developed a range of comparative leaflets which provide information in a user friendly way to assist service users in making an informed choice regarding medication.

How would this improve patient care?

- If the service user has sufficient information to make an informed choice regarding medication and is actively involved in this process then adherence is likely to be improved, which should lead to improved mental health.
- Safe prescribing and avoidance of polypharmacy will lessen the risk of adverse effects.
- Regular monitoring of side effects should identify potential problems earlier, with more opportunity to address any negative effects on physical health or adherence issues.

How could this be measured?

- The Prescribing Observatory for Mental Health programme provides the opportunity for services to benchmark their practice across the country and allows for targeted improvement.

IMPROVING THE PHYSICAL HEALTH OF PEOPLE WITH SEVERE MENTAL ILLNESS



8. REFERENCES

Alvarez-Jimenez M, Hetrisk SE, Gonzalez-Blanch, Gleeson JF and McGorry PD (2008) **Non-pharmacological management of antipsychotic-induced weight gain: systematic review and meta-analysis of randomised controlled trials** British Journal of Psychiatry 193 101-10

Barnett PG, Wong W and Hall S (2008) **The cost-effectiveness of a smoking cessation program for out-patients in treatment for depression** Addiction 103(5) 834-840

Bell MP, Coons VB and Buchanon RW (2001) **A programme for treating olanzapine-related weight gain** Schizophrenia Bulletin 52 (967-969)

Bradshaw T, Lovell K and Harris N (2005) **Healthy living interventions and schizophrenia: a systematic review** Journal of Advanced Nursing 49(6) 634-654

British Cardiac Society, British Hypertension Society, Diabetes UK, HEART UK, Primary Care Cardiovascular Society and The Stroke Association (2005) **JBS2: Joint British Societies' guidelines on prevention of cardiovascular disease in clinical practice** Heart 91 v1-v52.

Campion J, Checinski K and Nurse J (2008) **Review of smoking cessation treatments for people with mental illness** Advances in Psychiatric Treatment 14 209-216

De Hert M, Dekker JM, Wood D, Kahl KG, Holt RIG and Moller HJ (2009) **Cardiovascular disease and diabetes in people with severe mental illness position statement from the European Psychiatric Association (EPA), supported by the European Association for the Study of Diabetes (EASD) and the European Society of Cardiology (ESC)** European Psychiatry 24 412-424.

De Lusignan S, Chan T, Cohen A, Thana L, Dhoul N, Hague N, van Vlymen J (2005) **Health education and prevention for people with severe mental illness: a cross-sectional study of general practice computer records** Primary Care Mental Health 3 221-233

Department of Health (2002) **Mental health policy implementation guide: Dual diagnosis good practice guide**

Department of Health (2004a) **Quality and Outcomes Framework: Guidance Updated August 2004**

Department of Health (2004b) **Choosing Health: Making healthy choices easier**

Department of Health (2006) **Choosing Health: Supporting the physical health needs of people with severe mental illness: Commissioning Framework**

Department of Health (2009) **Health trainers- review to date June**

Diabetes UK (2009) **Care recommendations: Impaired glucose regulation (IGR)/ Non-diabetic hyperglycaemia (NDH)/ Prediabetes.**

Dickerson FB, Pater A and Origoni AE (2002) **Health behaviours and health status of older women with schizophrenia** Psychiatric Services 53(7) 884882-

Disability Rights Commission (2006) **Equal Treatment: Closing the Gap: A formal investigation into physical health inequalities experienced by people with learning disabilities and/ or mental health problems** Disability Rights Commission: Stratford-Upon-Avon

el-Guebaly N, Cathcart J, Currie S, Brown D and Gloster S (2002) **Smoking Cessation Approaches for Persons with Mental Illness or Addictive Disorders** Psychiatric Services 53(9) 1166-1170

Faulkner G, Cohn T and Remington G (2009) **Interventions to reduce weight gain in schizophrenia (review)** Cochrane Library 4

Ferron JC, Alterman AI, HcHugo GJ, Brunette MF and Drake RE (2009) **A review of research on smoking cessation interventions for adults with schizophrenia spectrum disorders** Mental Health and Substance Use: dual diagnosis 2(1) 64-79

Fourth Joint Task Force of the European Society of Cardiology and Other Societies on Cardiovascular Disease Prevention in Clinical Practice (2007) **European guidelines on cardiovascular disease prevention in clinical practice: executive summary** European Journal of Cardiovascular Prevention and Rehabilitation 14 (Supp 2) E1-E40.

Gallately CL and Murray LE (2009) **Managing weight in persons living with severe mental illness in community settings: a review of strategies used in community interventions** Issues in Mental Health Nursing 30(11) 660-668

Gask L, Rogers A, Roland M and Morris D (2001) **Improving Quality in Primary Care- A Practical Guide to the National Service Framework for Mental Health** University of Manchester: Manchester

Galletly CL and Murray LE (2009) **Managing Weight In Persons Living With Severe Mental Illness in Community Settings: A review of Strategies Used in Community Interventions** Issues in Mental Health Nursing 30(11) 660-668

Goff DC, Sullivan LM, McEvoy JP, Meyer JM, Nasrallah HA, Daumit GL, Lamberti S, D'Agostino RB, Stroup TS, Davis S and Lieberman JA (2005) **A comparison of ten-year cardiac risk estimates in schizophrenia patients from the CATIE study and matched controls** Schizophrenia Research 80 45-53.

Hamilton R, Harrison M, Naji S and Robertson C (2009) **Service innovation: the first year of lifestyle clinics of psychiatric out-patients** Psychiatric Bulletin 33 445-448

Healthcare Commission (2008) **Community Mental Health service users survey Section C: Medications**

file://localhost/Available http://www.cqc.org.uk:publications.cfm%3FwidCall1=customDocManager.search_do_2&tl_id=2&top_parent=4513&tax_child=4759&tax_grand_child=4819&tax_great_grand_child=&search_string=&pageNum=1

Higgins A, Barker P and Begley CM (2006) **Sexual health education for people with mental health problems: What can we learn from the literature?** Journal for Psychiatric and Mental Health Nursing 13 687-697

Hippisley-Cox J. and Pringle M. (2005) **Health Inequalities Experienced by People With Schizophrenia and Manic Depression: analysis of general practice data in England and Wales** Research

Hippisley-Cox J, Vinogradova Y, Coupland C and Parker C (2006a) **Risk of malignancy in patients with mental health problems.**

Kahn L, Fox CH, Krause-Kelly J, Berdine DE and Cadzow RB (2006) **Identifying barriers and facilitating factors to improve screening mammography rates in women diagnosed with mental illness and substance use disorders** Women and Health 42(3) 111-126

Kemp V, Bates A and Isaac M (2009) **Behavioural interventions to reduce the risk of physical illness in persons living with mental illness** Current Opinion in Psychiatry 22(2) 194-199

Lindamer LA, Buse DC, Auslander L, Unutzer J, Bartels SJ and Jeste DV (2003) **A Comparison of Gynaecological Variables and Service Use Among Older Women With and Without Schizophrenia** Psychiatric Services 54 (6) 902-904

Lindenmayer JP, Khan A, Wance D, Maccabee N, Kaushik S and Kaushik S (2009) **Outcome Evaluation of a Structured Educational Wellness Program in Patients with Severe Mental Illness** Journal of Clinical Psychiatry 70 (10) 1385-1396

Lowe T and Lubos E (2008) **Effectiveness of weight management interventions for people with serious mental illness and who receive treatment with atypical antipsychotic medications. A literature review** Journal of Psychiatric and Mental Health Nursing 15 857-863

Martens PJ, Chochinov HM, Prior HJ, Fransoo R and Burland E (2009) **Are cervical cancer screening rates different for women with schizophrenia? A Manitoba population-based study** Schizophrenia Research 113(1) 101-106

McCandles F and Sladden C (2003) **Sexual Health and Women with Bipolar Disorder** Journal of Advanced Nursing 44(1), 42-48

McNeill A (2004) **Smoking and patients with mental health problems** Health Protection Agency; London

Nasrallah HA, Meyer JM, Goff DC, McEvoy JP, Davis SM, Stroup TS and Lieberman JA (2006) **Low rates of treatment for hypertension, dyslipidaemia and diabetes in schizophrenia: Data from the CATIE schizophrenia trial sample at baseline** Schizophrenia Research 86 15-22.

National Institute for Health and Clinical Excellence (2006) **The management of bipolar disorder in adults, children and adolescents, in primary and secondary care** CG38

National Institute for Health and Clinical Excellence (2008a) **Lipid modification: Cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease** CG67.

National Institute for Health and Clinical Excellence (2008b) **Measuring Effectiveness and Cost Effectiveness: the QALY** Available <http://www.nice.org.uk/newsroom/features/measuringeffectivenessandcosteffectiveness/qaly.jsp>

National Institute for Health and Clinical Excellence (2009a) **Core interventions in the treatment and management of schizophrenia in primary and secondary care (Update)** CG82

National Institute for Health and Clinical Excellence (2009b) **Depression in adults (update): Depression: the treatment and management of depression in adults** CG90

National Institute for Health and Clinical Excellence (2009c) **Depression in adults with a chronic physical health problem. Treatment and management** CG91

National Schizophrenia Foundation (2000) **A Question of Choice** National Schizophrenia Foundation, London

NHS Careers (date unknown) **Health Trainers** Available <http://www.nhs.uk/careers/nhs.uk/details/Default.aspx?id=1901>

NHS Choices (2007) **Exercise: Recommendations** Available <http://www.nhs.uk/Conditions/Exercise/Pages/Recommendations.aspx>

NHS North West (2008) **A Better Future in Mind**
NIHME (2009) **Dual Diagnosis Themed Review Report 2006/7; SHA Regional Reports North West**

Nocon A (2006) **Background evidence for the DRC's formal investigation into health inequalities experienced by people with learning disabilities and/or mental health problems.** University of Leeds

Phelan M, Stradins L, Amin D, Isadore R, Hitrov C, Doyle A and Inglis R (2004) **The Physical Health Check: A tool for mental health workers** Journal of Mental Health 13(3): 277-284

Philips RJ (1934) **Physical disorder in 164 consecutive admissions to a mental hospital: the incidence and significance.** BMJ 1934; 2: 363-366

Pinkerton SD, Johnson-Masotti AP, Otto-Salaj LL, Stevenson Y and Hoffmann RG (2001) **Cost-effectiveness of an HIV Prevention Intervention for Mentally Ill Adults** Mental Health Services Research 3(1) 45-55

Ranney L, Melvin C, Lux L, McClain E and Lohr KN (2006) **Systematic Review: Smoking Cessation Intervention Strategies for Adults and Adults in Special Populations** Annals of Internal Medicine 145(11) 845-856

RETHINK **The PHC: A physical health check for mental health service users** London

Richardson CR, Faulkner G, McDevitt J, Skrinar GS, Hutchinson DS and Piette JD **Integrating physical activity into mental health service for persons with serious mental illness** Psychiatric Services 56(3) 324-331

Rostami-Hodjegan, Amin AM, Spencer EP, Lennard MS, Tucker GT and Flanagan RJ (2004) **Influence of dose, cigarette smoking, age, sex and metabolic activity on plasma clozapine concentrations: A predictive model and monograms to aid clozapine dose adjustment and to assess compliance in individual patients** Journal of Clinical Psychopharmacology 24(1) 70-178

Royal College Psychiatrists (2009) **Physical Health in Mental Health: Final Report of a Scoping Group** Occasional Paper OP67

Saha S, Chant D and McGrath J (2007) **A systematic review of mortality in schizophrenia** Arch Gen Psychiatry 64(10) 1123-1131.

Samele C, Hoadley A and Seymour L (2006) **A systematic review of the effectiveness of interventions to improve the physical health of people with severe mental health problems** The Sainsbury Centre for Mental Health London

Senn TE and Carey MP (2008) **HIV, STD and Sexual Risk Reduction in Individuals with a Severe Mental Illness: Review of the Intervention** Literature Current Psychiatry Review 4(2): 87-100

Siru R, Hulse GK and Tait RJ (2009) **Assessing motivation to quit smoking in people with mental illness: a review** Addiction 104(5) 719-733

Smith S, Yeomans D, Bushe CJP, Eriksson C, Harrison T, Holmes R, Mynors-Wallis L, Oatway H and Sullivan G (2007a) **A well-being programme in severe mental illness. Baseline findings in a UK cohort.** International Journal of Clinical Practice 61 (12) 1971-1978

Smith S, Yeomans D, Bushe CJP, Eriksson C, Harrison T, Holmes R, Mynors-Wallis L, Oatway H and Sullivan G (2007b) **A well-being programme in severe mental illness. A post programme service evaluation at 2 years** European Psychiatry 22(7) 413-418

Snyder M (2006) **Serious mental illness and smoking cessation** Issues in Mental Health Nursing 27 635-645

South J, Woodward J, Lowcock D and Woodall J (2006) **An evaluation of the Bradford District Health Trainers Programme - an early adopter site** Leeds Metropolitan University

Trayers T and Lawlor DA (2007) **Bridging the gap in health inequalities with the help of health trainers: a realistic task in hostile environments? A short report for debate** Journal of Public Health 29 (3) 218-221

UKPPG (2001a) **Olanzapine Factsheet** London

UKPPG (2001b) **Risperidone Factsheet** London

Webster S (2007) **Access to cancer screening for women with long-term mental health problems** Australian Nursing Journal 15(5) 26

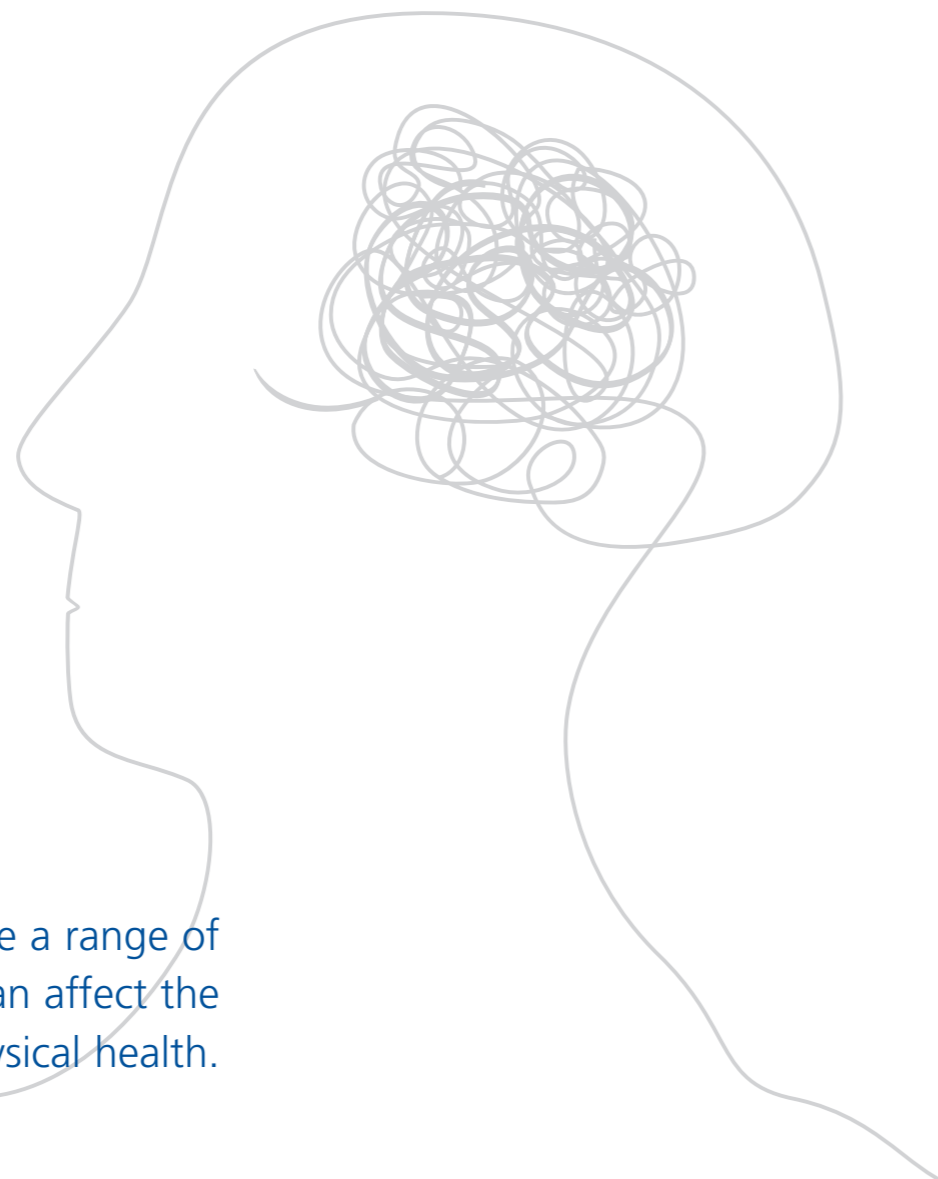
Werneke U, Horn O, Maryon-Davis, Wessely S, Donnan S and McPherson K (2006) **Uptake of screening for breast cancer in patients with mental health problems** Journal of Epidemiology and Community Health 60 600-605

White J, Gray R and Jones M (2009) **The development of the serious mental illness physical Health Improvement Profile** Journal of Psychiatric and Mental Health Nursing 16 493-498

Woodcock Ross J, Perry J, Cheung Chan M, Carpenter F, Sheaff R, Mayhew S and Bora R **North West Boost to the Evaluation of the Impact of the Choosing Health Financial Commitment to Supporting the Physical Health Needs of People With Severe Mental Illness at National, Regional and PCT Level in England: Final Report** University of Plymouth

Woolf L and Jackson B (1996) **Coffee and condoms: the implementation of a sexual health programme in acute psychiatry in an inner city area** Journal of Advanced Nursing 23 299-304

World Health Organisation (1999) **Definition, diagnosis and classification of diabetes mellitus and its complications Report of a WHO Consultation.**



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Chief Executive Sponsor

- Laura Roberts- Chief Executive, NHS Manchester

Leadership Fellows

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- Jo Strauss- RMN

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