

2014 update

Early Intervention in Psychosis – Keeping the Body in Mind

KEY LEARNING POINTS

- >> Compared to the general population, the life expectancy of people with severe mental illness is reduced by around 15-20 years:
 - There is a 3 times increased risk of premature death.
 - Around 75% of these premature deaths are caused by physical disorders.
 - Cardiovascular disease is the single biggest cause of premature mortality. It is more common than suicide, and potentially preventable.
- Poor physical health impacts negatively on self-esteem, mental health, stigma, discrimination, and quality of life.
- The early phase of psychosis is a critical period for preventing or modifying cardiometabolic risk, avoiding premature death and reducing health inequalities.
 - Weight gain and metabolic disturbance may occur very early in the course of psychosis, accelerating within weeks of treatment initiation.
 - Health risk behaviours including smoking, alcohol and drug misuse, poor nutrition and physical inactivity are common and are powerfully influenced by social determinants of health.

Don't just screen – intervene!

The Lester approach to protecting cardiometabolic health in psychosis

Why is this important for primary care?

People with severe mental illnesses such as schizophrenia and bipolar disorder live 15-20 years less than the general population ^{1, 2}.

- Higher rates of physical health conditions such as cardiovascular disease (CVD), certain cancers, pulmonary diseases and infectious diseases cause the majority of these premature deaths ^{2,3}.
- While suicide is a serious concern, particularly in the early course of mental illness, cardiovascular disease is the single largest cause of premature mortality ³.
- The mortality gap is widening, particularly due to cardiovascular disease^{3, 4}.
- People with severe mental illness are 2-3 times more likely to develop type 2 diabetes mellitus during their lifetime⁵.
- At the onset of psychosis, metabolic syndrome occurs with similar frequency to the general population⁶, but by the age of 40 years it has become 4 times more common⁷.

Because psychosis usually commences in late teens/early twenties, ⁸ this group is already at a much higher risk of premature death from physical illness in their twenties and thirties, an age when primary care would not usually consider active primary or secondary prevention. Many of these risks are potentially modifiable: see table 1 below.

What causes these premature 'physical' deaths?

The epidemic of cardiovascular disease, obesity and type 2 diabetes in western societies has been linked to smoking, physical inactivity and poor nutrition. People with psychosis have not been immune to these influences; the impacts are often compounded by social disadvantage, the adverse effects of antipsychotic medication and inequalities in healthcare.

Moreover, where the general population appear to have benefitted from successful public health measures to reduce CVD mortality in the last two decades, particularly smoking cessation programmes, those with severe mental illness may have missed out, explaining the widening mortality gap ^{3,4}.

1) Smoking: In the UK general population smoking is the largest preventable cause of death and therefore one of the most important modifiable risk factors for both premature mortality and chronic disease. Smokers die an average of 10 years earlier than non-smokers⁹. Smoking is associated with an increased risk of several chronic diseases such as cardiovascular disease, peripheral arterial disease with its attendant risk of amputation (10-16 times increased risk¹⁰), chronic obstructive pulmonary disease and type 2 diabetes (60% increased risk¹¹).

This is even more important in people with severe mental illness, as smoking is the most serious risk to their reduced life expectancy³:

 Of all tobacco consumed in England, a disproportionately high 42% is smoked by those with mental disorders¹².

The RCGP Mental Health Curriculum clearly states:

People with severe mental health problems have an increased risk of morbidity and mortality owing to cardiovascular disease and diabetes; as a general practitioner (GP) you have a significant role in prevention, detection and management of this physical co-morbidity.

- The impact is greatest in people with severe mental illness who smoke more, start earlier, inhale more deeply and spend a greater proportion of their income on cigarettes¹³.
- 59% of people in their first episode of psychosis smoke regularly¹⁴, climbing to 70% in people with established schizophrenia³. This is compared to less than 20% in the general population.
- Smoking induces metabolism of antipsychotic medication including olanzapine, clozapine and fluphenazine.
 This means that smokers require higher doses, which can be reduced by up to half within 4 weeks of stopping smoking¹³.
- Smoking diminishes wellbeing, causes long-term physical illness and accounts for 70% of the excess mortality in people with schizophrenia³.

2) Physical activity and nutrition:

Compared with the general population, people with severe mental illness are:

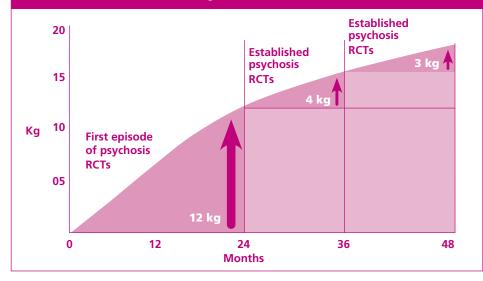
- Twice as likely to be sedentary, often accentuated by their mental disorder or sedating antipsychotic medicines¹⁵.
- Less likely to eat healthily ¹⁶ due to lack of nutritional knowledge, the higher cost of healthier foods and poorer cooking skills
- 2-3 times more likely to be obese, linking in turn to higher risk of developing CVD and type 2 diabetes⁵.

People with severe mental illnesses such as schizophrenia and bipolar disorder live 15-20 years less than the general population^{1, 2}.



FIGURE 1. Antipsychotic-induced weight gain in chronic and first-episode psychotic disorders: a systematic critical reappraisal

Alvarez-Jimenez et al; C562. NS Drugs, 2008, 22: 547-562.



With thanks to Dr Mario Alvarez-Jimenez for the permission to show this graph.

About half of those commencing antipsychotic medication gain more than 7% of their body weight within the first 12 months, varying with the antipsychotic prescribed ¹⁷.

- **3) Medication:** Adverse effects of antipsychotic medication can combine with illness factors and social disadvantage to create serious weight gain and metabolic disturbances in the early phase of psychosis:
- About half of those commencing antipsychotic medication gain more than 7% of their body weight within the first 12 months, varying with the antipsychotic prescribed ¹⁷. And see figure 1¹⁸ above
- Adverse effects on lipid and glucose metabolism can appear within weeks of commencing antipsychotic treatment ¹⁹.
 Insulin resistance can be observed within 9 days in healthy volunteers exposed to antipsychotic medication ²⁰
- These disturbances tend to be more pronounced in younger patients ²¹.
- **4) The inverse care law?** People with severe mental illnesses receive suboptimal health care, despite their higher risk for physical illness:
- The National Audit of Schizophrenia reported only 29% of people with schizophrenia had a record of an adequate cardiometabolic assessment in the previous 12 months²²
- Systematic under-recognition and under-treatment of CVD in people with schizophrenia in primary care (Scottish study of 314 general practices)²³
- Patients with severe mental illness are almost half as likely to see a practice nurse (key providers of CVD risk screening and health promotion) as the general wider practice population²⁴
- Even when health risks are detected treatment rates remain low; e.g. Rates of non-treatment ranged from 30% for diabetes, to 62% for hypertension, and 88% for Dyslipidaemia²⁵
- Patients with diabetes are given fewer routine eye checks and have poorer glycaemic and lipid control²⁶.

- The decision to retire the requirement to measure weight, glucose and lipids from the GP Quality Outcome Framework in April 2015 may further widen these health inequalities²⁷.
- **5) Lowered reporting of physical symptoms:** People with schizophrenia are less likely than healthy controls to report physical symptoms spontaneously²⁸.

What can be done?

People with severe mental illness are as interested in their physical health as the general population. Yet they are less likely to receive effective healthcare in clinical practice, particularly when compared to patients without mental illness²⁹.

Effective intervention to prevent, monitor and act early can prevent future physical disease and a large proportion of premature deaths

The Lester Positive Cardiometabolic Resource ³¹ offers a systematic and evidence based approach endorsed by RCGP, RC Psychs, RCN, RCP, Diabetes UK and Rethink, and is recommended by the Schizophrenia Commission ³² and NICE as an implementation resource ³³.

Don't just screen, intervene!

1) Evaluate and monitor cardiometabolic risks according to the Lester Positive Cardiometabolic Health Resource 31.

The tool provides practitioners in both primary and secondary care, irrespective of professional background, a simple assessment and intervention framework based around 6 key cardiometabolic parameters:

- Smoking status
- Lifestyle (including physical activity and nutritional status)
- Body Mass Index or weight
- Blood pressure
- Glucose regulation
- Blood lipids
- 2) Prioritise a systematic preventative approach to protecting the physical health and wellbeing of people with a first episode of psychosis (See HeAL consensus ³⁴).

Move from simply box-ticking measurements towards more creative targets which encourage improved outcomes of care. For example:

- Rather than just assessing the patient's weight, encourage the uptake of programmes of weight management and physical activity which focus on preserving the level of health they have right from the start of psychosis and its treatment 34
- Rather than simply recording smoking status, encourage uptake of smoking cessation programmes (these are rarely accessed currently despite very high rates of smoking)³⁴.

3) Encourage participation in care decisions based on information about treatment and health promotion interventions:

- Help patients understand the potential trade-offs of medication improving mental health symptoms while in some cases increasing risks of physical illness
- Explain how such risks can be significantly reduced by ensuring access to effective health promotion interventions, along with appropriate long-term support
- Work with families when they raise physical health concerns on behalf of a patient.
 Don't use patient confidentiality as an excuse for inaction.

4) Prescribe antipsychotic medication for people experiencing a first episode of psychosis according to recommended prescribing standards:

- For guidance see page 4-5 of British Association for Psychopharmacology guidelines 35
- Regularly review antipsychotic medications to minimise adverse effects that may contribute to risk of CVD, obesity and diabetes
- Review urgently if, following treatment initiation or change, there is rapid weight gain (e.g 5kg <3months) or rapid adverse changes in lipids, glucose or blood pressure.
- 5) Promote physical health and address risk of physical illness to combat health inequalities: From the onset of psychosis encourage healthy eating and physical activity, and advise on risks from tobacco and substance use, sexual health and dental care. When considering risks for physical illness, it's important to emphasise that lifestyle interventions can prevent not just 'medical' but also many 'surgical' conditions. Key public health objectives in the first 2-3 years of psychosis should aim to:
- Reduce smoking harm ³⁶
- Reduce sedentariness and increase ageappropriate physical activity, such as at least 150 minutes per week of moderate intensity exercise
- Promote healthier eating by increasing fibre intake; increasing nutritional awareness; teaching cooking and shopping skills; reducing take aways and "junk" food; and cutting down on soft drinks and juices.
- 6) Facilitate early access to treatment of physical health conditions and illness as people with psychosis are at such increased risk of physical illness.

Implementation

The 2014 update of the NICE guidance on psychosis & schizophrenia recommends allocation of clinical responsibility for physical health monitoring ³⁷:

- The secondary care team should maintain responsibility for monitoring service users' physical health and the effects of antipsychotic medication for at least the first 12 months, or until the person's condition has stabilised, whichever is longer (NICE Recommendation 1.3.6.4)
- GPs and other primary healthcare professionals should monitor the physical health of people with psychosis or schizophrenia when responsibility for monitoring is transferred from secondary care, and then at least once a year (NICE Recommendation 1.5.3.2).

The Lester Positive Cardiometabolic Health Resource ³¹ offers a framework for preventing, monitoring and intervening early and rapidly when cardiometabolic risks appear.

Successful implementation will hinge on local collaboration between primary care, secondary care, social care/local authority and public health teams to agree shared commissioning priorities which embrace:

- Explicit individual, team and agency roles and responsibilities as proposed in the Integrated Physical Health Pathway (see Useful Resources) agreed by the RCGP, RC Psychs and Rethink
- Robust information systems to improve communication between clinician to clinician and clinician to patient
- Competent workforces that successfully assess training needs for all relevant clinical teams and community agencies (including smoking cessation practitioners, community pharmacists, etc.)
- A robust joint strategic needs assessment (JSNA) of this groups' health needs to inform and underpin strategic planning and commissioning decisions through local Health and Wellbeing boards
- More collaborative and integrated service development and innovation, utilising local and national system levers (e.g Quality and Outcomes Framework; CQUINs; Local enhanced services; use of personal budgets; pooled health; and social care budgets)
- Clinical audits against agreed standards, e.g. access to smoking cessation; maintaining a healthy weight; and maintaining lipids and glucose within a normal range.

Above all, this care is not something that can continue to be left to individual passion and discretion. ■

As the late Professor Helen Lester emphasised in the James McKenzie lecture Being Bothered about Billy: what is needed most is a change of attitude. 'This is not rocket science... this is primary care business.' 30

Next time you see a person with a first episode of psychosis... keep the body in mind.

Useful Resources

Lester H, Shiers D, Rafi I, Cooper S, Holt R (2012). Positive Cardiometabolic Health Resource: An Intervention Framework for Patients with Psychosis on Antipsychotic Medication. Royal College of Psychiatrists, London I www.rcpsych.ac.uk/quality/NAS/resources

NICE Clinical Guidelines for Psychosis and Schizophrenia in Children and Young People (CG155) 2013 | http://guidance.nice.org.uk/CG155

NICE quidance: Psychosis & Schizophrenia in Adults (NICE CG 178) | http://quidance.nice.org.uk/CG178 | NICE 2014

Holt RIG. Cardiovascular Disease and Diabetes in People with Severe Mental Illness: Causes, Consequences and Pragmatic Management. PCCJ Practice Review 2012 Epublication ahead of print; doi:10.3132/pccj.2011.085 | http://www.pccj.eu/images/stories/AheadOfPrint/PCCJ_Holt_FINALONLINE_JAN.pdf

Shiers D & Holt RIG. Protecting the Cardiometabolic Health of People with Severe Mental Illness. Diabetes UK 2012 Factfile 13 http://www.rcpsych.ac.uk/pdf/Diabetes%20UK%20factfile%20on%20severe%20mental%20illness.pdf

Healthy Active Lives International Consensus statement | http://guidance.nice.org.uk/CG178/HeALConsensusStatement/pdf/English

Primary Care Guidance on Smoking and Mental Disorder | http://www.rcgp.org.uk/clinical-and-research/clinical-resources/mental-health.aspx

Evidence-based Guidelines for the Pharmacological Treatment of Schizophrenia: Recommendations from the British Association for Psychopharmacology | http://www.bap.org.uk/pdfs/Schizophrenia_Consensus_Guideline_Document.pdf

Rethink Mental Illness Physical health check tool (and other resources) - developed with Michael Phelan and expert steering group I http://www.rethink.org/about-us/health-professionals/physical-health-resources

Integrated Physical Health Pathway (2012) collaboration between RCGP, RCPsych and Rethink Mental Illness I http://www.rcpsych.ac.uk/pdf/NAS%20Integrated%20Physical%20Health%20Pathway%20Dec%2012.pdf

Authors

Dr David Shiers

GP advisor to National Audit of Schizophrenia; retired GP from North Staffordshire; former joint lead of the National Early Intervention in Psychosis Development Programme (2004-10).

Dr Jonathan Campion

Previously worked as a GP and now consultant psychiatrist and director of public mental health at South London & Maudsley NHS Foundation Trust, director of population mental health at UCLPartners and Visiting Professor of Population Mental Health at UCL.

Professor Peter Jones

Honorary consultant psychiatrist, CAMEO, Cambridgeshire & Peterborough NHS Foundation Trust.

Professor David Taylor

Director of Pharmacy and Pathology; Head of Pharmaceutical Sciences Clinical Academic Group, King's Health Partners; Editor-in-Chief -Therapeutic Advances in Psychopharmacology, South London and Maudsley NHS Foundation

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Endorsements

Royal College of General Practitioners (RCGP) Royal College of Psychiatrists (RCPsych) Royal College of Surgeons (RC Surgeons) UK Faculty of Public Health (FPH) International Early Psychosis Associations (IEPA) Diabetes UK

Rethink Mental Illness UCI Partners -Academic Health Science Partnership

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